

# P

**P** 1. *position; posterior; postpartum; pressure; pulse; pupil*. 2. Symbol for the element phosphorus. 3. Symbol for partial pressure, preferably italicized. 4. Probability.

**p** *page; probability* (in statistics); *pupil*.

**p-** *para-* in chemical formulas.

**p** *after- or post-*.

**P<sub>1</sub>** *first parental generation* (in genetics); *first pulmonic heart sound*.

**P<sub>2</sub>** *pulmonic second sound*.

**<sup>32</sup>P** Symbol for radioactive isotope of phosphorus.

**P 0.1** The inspiratory mouth occlusion pressure measured 0.1 seconds after a breath initiates. Higher pressures are found in those mechanically ventilated patients who are more difficult to wean from ventilatory support. A more negative pressure implies a patient with an increased ventilatory demand (shortness of breath) and a less negative pressure means a patient is obtunded or has weak respiratory muscles.

**p53** SEE: under *gene*.

**PA** *pulmonary artery; physician's assistant*.

**Pa** 1. Symbol for the element protactinium. 2. Pascal.

**P-A, p-a** *posteroanterior*.

**P & A** *percussion and auscultation*.

**P(A-a)O<sub>2</sub>** The oxygen pressure gradient between the alveoli and the arterial blood.

**pabular** (păb'ŭ-lăr) [L. *pabulum*, food] Pert. to food or nourishment.

**pabulum** (păb'ŭ-lŭm) [L.] Food or nourishment; esp. in an absorbable solution.

**PAC** *premature atrial contraction*.

**pacchionian body** (păk'e-ŏ-nĕ-ăn) Arachnoid granulation.

**pacchionian depressions** Small pits produced on the inner surface of the skull by protuberance of the pacchionian bodies (arachnoid villi).

**PACE** (păs) *Patient Advise and Consent Encounter*.

**pacemaker** (păs'māk-ĕr) [L. *passus*, a step, + AS. *macian*, to make] 1. Anything that influences the rate and rhythm of occurrence of some activity or process. 2. In cardiology, a specialized cell or group of cells that automatically generates impulses that spread to other regions of the heart. The normal cardiac pacemaker is the sinoatrial node, a group of cells in the right atrium near the entrance of the superior vena cava. 3. A generally accepted term for artificial cardiac pacemaker.

**artificial cardiac p.** A device that can trigger mechanical contractions of the

heart by emitting periodic electrical discharges. If the device delivers electricity through the chest wall, it is called a transcutaneous pacemaker; if it works via electrodes inserted inside the body, it is called an internal or implantable pacemaker. Pacemakers are used most often to treat patients with symptomatic slow heart rates or long pauses between heart beats (e.g., patients with third-degree heart block, symptomatic second-degree heart block, bifascicular block with first-degree heart block, carotid sinus hypersensitivity, and tachybrady syndrome) and slow ventricular response rates. Occasionally, though, they also are used for other purposes, such as to capture and override some tachyarrhythmias. SEE: *illus.*



**PACEMAKER**

Pacemaker defibrillator beneath the skin

All artificial cardiac pacemakers have a pulse generator (a device that gives off an electrical impulse at prescribed intervals), electrical leads (which transmit the impulse to the myocardium), and a battery (usually made of lithium iodide) encased in titanium and implanted surgically in a subcutaneous pocket (usually in the chest). The pacing leads are threaded through a subclavian vein into the right heart, with the primary lead placed in the ventricle, and the second lead (if required) in the atrium. For biventricular pacing, a third lead is placed in the left ventricle. A biventricular pacemaker also may have a built-in cardioverter-defibrillator. Pacemakers typically have the ability to pace the ventricle, the atrium, or both; to sense electrical discharges coming from cardiac chambers; and to respond to sensed beats. Most pacemakers in the U.S. also are programmable, and many are rate responsive. The fea-



tures of each pacemaker are identified in its three- to five-letter NASPE/BPG code (developed and revised by the North American Society of Pacing & Electrophysiology and the British Pacing & Electrophysiology Group). The five positions describe the pacer's functions as follows:

1. Chambers paced (O=none, A=atrium, V=ventricle, D=dual [atria and ventricles], S=manufacturer's designation for single [atrium or ventricle]);

2. Chambers sensed (O=none, A=atrium, V=ventricle, D=Dual, S=Single);

3. Response to sensed event (O=none, T=triggered, I=inhibited, D=dual [inhibited and triggered]);

4. Rate modulation (O=none, R=rate modulation in response to sensor technology);

5. Multisite pacing (O=none, A=atrium, V=ventricle, D=dual [atrium and ventricle]).

Thus a pacemaker with the letter I in position 3 of its code will inhibit firing when it senses an intrinsic beat but will pace the cardiac chamber if no beat is sensed. The letter D in position 5 indicates that both atria and both ventricles are paced, with the left and right chambers stimulated simultaneously to maintain coordination and thus improve cardiac output. When the pacemaker has a rate modulation feature (R in position 4), also known as an adaptive rate mechanism, it works to copy the abilities of a normally functioning heart, such as detecting exercise and triggering pacer rate acceleration to meet the increased metabolic need. Other pacemaker features include hysteresis, which delays unnecessary pacing (which can harm the right ventricle), and allows the patient's intrinsic impulse to provide an atrial kick, which Stokes the ventricle and increases cardiac output by 15% to 30% over a beat without atrial kick. Pacers with a "rate-smoothing algorithm" limit heart rate changes to a programmed percentage from one beat to the next, allowing the heart rate to increase or decrease more slowly and providing time for the body to adjust the stroke volume as it would normally in such situations.

**PATIENT CARE:** After pacemaker implantation, follow-up care is provided to ensure that the device is working optimally. A chest x-ray confirms correct placement of the leads and also can identify some complications, such as pneumothorax. Since pacemakers usually are implanted under moderate sedation and analgesia, the patient may still be drowsy on return to the unit from recovery; however, he/she should arouse easily and be able to answer questions and follow commands. Supplemental oxygen is provided (nasal

cannula or mask) until the patient is fully awake and his/her oxygen saturation has returned to baseline. Immobilizing the patient's shoulder and arm on the operative side with a sling or ace-wrap for 24 to 48 hr limits movement that could dislodge the tip of the pacing electrode(s) from the endocardial wall, preventing sensing of intrinsic beats or needed pacing. The incision is assessed for bleeding, infection, and incisional discomfort, which is controlled with prescribed analgesia. The patient also is assessed for chest pain, palpitations, dizziness, shortness of breath, hiccuping, and a sensation of pacing in the abdomen, and the cardiologist or surgeon notified if any of these occur. The chest x-ray usually is repeated the following day to document positioning and rule out pneumothorax. Pacer function is checked, and the patient discharged with instructions for activity restrictions and further care. Follow-up care typically includes monitoring the pacemaker's performance, either in the cardiologist's office or by telephonic link-up to ensure, for example, that the pulse generator is triggering a heart rate that is appropriate for the patient's needs, that the leads are working, and that the battery's strength is adequate.

Health care professionals should ascertain the type of pacemaker employed and expectations for its function based on its NASPE/BPG code; monitor the cardiac rate and rhythm for evidence of pacemaker function; assess the patient for evidence of pacemaker failure or noncapture (vertigo, loss of consciousness, hypotension, chest discomfort, dyspnea) and evaluate the patient for effects on cardiac output; teach the patient technique and rationale for monitoring own pulse rate and for care and protection of insertion site; and counsel concerning telephone monitoring check-up, battery replacement, medication regimen, physical activity, and follow-up care. They should encourage the patient to wear or carry medical identification and information indicating the presence and type of pacemaker implanted, along with an electrocardiogram rhythm strip showing pacemaker activity and capture.

**breathing p.** A device that stimulates breathing by delivering electrical pulses to both phrenic nerves from an external radio transmitter to an implanted receiver. It is used in patients with quadriplegia or sleep apnea. SEE: *radiofrequency electrophrenic respiration*.

**DDD p.** A rate-adaptive implanted pacing device. It senses and paces both atrial and ventricular events, triggering the atrioventricular (AV) interval so that AV synchrony is maintained over a wide range of heart rates. This type of

pacing has reduced the incidence of pacemaker syndrome. It is the most versatile pacing device used. SEE: *pacing code*; *pacemaker syndrome*.

**DDI p.** An implanted pacing device that senses both atrial and ventricular events but can inhibit only atrial impulses. This type of pacing is used only when atrioventricular conduction is intact. It may be suitable when frequent atrial tachyarrhythmias cause rapid ventricular rates.

**demand p.** An implanted pacemaker that is designed to permit its electrical output to be inhibited by the heart's electrical impulses. This decreases the chances for the pacemaker to induce discomfort or dysrhythmias.

**dual-chamber p.** A pacemaker that is also known as an atrioventricular sequential pacemaker because it stimulates both atria and ventricles sequentially.

**ectopic p.** Any endogenous cardiac pacemaker other than the sinoatrial node.

**failure of artificial p.** A defect in a pacemaker device caused by either a failure to sense the patient's intrinsic beat or a failure to pace. Failure to pace can be caused by a worn-out battery, fracture or displacement of the electrode, or pulse generator defect.

**fixed-rate p.** A pacemaker that stimulates the heart at a predetermined rate.

**internal p.** A cardiac pacemaker placed within the body.

**programmable p.** An electronic permanent pacemaker in which one or more settings can be changed electronically.

**rate-responsive p.** An electronic pacemaker that senses changes in the body's need for adjustment of the cardiac rate as can occur in sleeping, waking, sitting, walking, or running. The device alters cardiac rate by sensing body motion, changes in breathing, or slight changes in blood temperature, which improves the quality of life for active patients. It is also called a *rate-adaptive pacemaker*.

**temporary p.** An electronic device for temporary cardiac pacing (e.g., during cardiac surgery and emergencies). The device consists of an electrode catheter inserted transvenously in the right ventricular apex that receives impulses from an external generator.

**transcutaneous p.** An artificial cardiac pacemaker that is located outside the body. The electrodes for delivering the stimulus are located on the chest wall. SYN: *transthoracic pacemaker*.

**transthoracic p.** Transcutaneous p.

**wandering p.** A cardiac arrhythmia in which the site of origin of the pacemaker stimulus shifts from one site to another, usually from the atrioventric-

ular node to some other part of the atrium.

**pacemaker syndrome** A group of unpleasant symptoms associated with unsynchronized atrioventricular timing in patients who have single-chamber (ventricular) pacemakers. The symptoms may include syncope or presyncope, orthostatic dizziness, cough, dyspnea, palpitations, and others. The symptoms are produced by the contraction of the atria against closed atrioventricular valves and by the loss of cardiac output that the atria would normally contribute to ventricular filling during diastole. DDD pacing reduces the incidence of this condition by allowing restoration of atrioventricular synchrony.

**pacemaker** Pacemaker.

**pachy-, pach-** [Gr. *pachys*, thick] Combining form meaning *thick*.

**pachycephalic** (pāk'ē-sē-fāl'ik) [p' + *kephale*, brain] Possessing an abnormally thick skull.

**pachycheilia** (pāk'ē-kī'lē-ä) [p' + *cheilos*, lip] Unusual thickness of the lips.

**pachychromatic** (pāk'ē-krō-mät'ik) [p' + *chroma*, color] Possessing a coarse chromatin network.

**pachydactyly, pachydactylia** (pāk'ē-däkt'il'ē-ä, -däkt'ti-lē) [p' + *daktylos*, digit] A condition marked by unusually large fingers and toes.

**pachyderma** (päk-ē-dēr'mä) [p' + *derma*, skin] Unusual thickness of the skin. SEE: *elephantiasis*.

**p. lymphangiectatica** A diffuse form of skin thickening caused by blocked or defective lymph drainage.

**occipital p.** A disease in which the skin of the scalp, esp. in the occipital region, falls into thickened folds.

**pachydermatocoele** (päk'ē-dēr-mät'ō-sēl) [p' + " + *kele*, tumor, swelling] 1. A pendulous state of the skin with thickening. SYN: *cutis laxa*; *dermatolysis*. 2. Huge neurofibroma.

**pachydermoperiostosis** (päk'ē-dēr'mō-pēr'ē-ös-tō'sis) A hereditary form of osteoarthropathy of unknown origin marked by thickening of the skin over the face and extremities. If associated with an underlying disease, treatment of the disease may cause the symptoms and signs of this condition to disappear.

**pachyglossia** (päk'ē-glōs'sē-ä) [p' + *glossa*, tongue] Unusual thickness of the tongue.

**pachygnathous** (pä-kīg'näth-üs) [p' + *gnathos*, jaw] Having a thick or large jaw.

**pachygyria** (päk-ē-jī'rē-ä) [p' + *gyros*, a circle] Flat, broad formation of the cerebral convolutions.

**pachyleptomeningitis** (päk-ē-lēp'tō-mēn'-in-jī'tis) [p' + *leptos*, thin, + *meninx*, membrane, + *itis*, inflammation] Inflammation of the pia and dura of the brain and spinal cord.

**pachymenia** (păk-ē-mē'nē-ă) [ʹ + *hymen*, membrane] A thickening of the skin or membranes.

**pachymeningitis** (păk-ē-mēn'īn-jī'tīs) [ʹ + *meninx*, membrane, + *itis*, inflammation] Inflammation of the dura mater. SYN: *perimeningitis*.

**pachymeningopathy** (păk'ē-mēn'īn-gōp'ă-thē) [ʹ + *pathos*, disease] Any noninflammatory disease of the dura mater.

**pachymeninx** (păk-ē-mē'nīnks) [ʹ + *meninx*, membrane] The dura mater.

**pachymeter** (păk'ī-mē'tēr) [ʹ + *metron*, to measure] A device to determine the thickness of a material or object, such as the cornea.

**pachymetry** (pă-kim'ē-trē) Measurement of the thickness of a body part, esp. the thickness of the cornea.

**pachyonychia** (păk'ē-ō-nīk'ē-ă) [Gr. *pachys*, thick, + *onyx*, nail] Abnormal thickening of the fingernails or toenails.

**p. congenita** A congenital condition characterized by thickening of the nails, thickening of the skin on the palms of the hands and the soles of the feet, follicular keratosis at the knees and elbows, and corneal dyskeratosis.

**pachyotia** (păk-ē-ō'shē-ă) [ʹ + *ous*, ear] Abnormal thickness of the ears.

**pachypelvipерitonitis** (păk'ē-pēl'vī-pēr'ī-tō-nī'tīs) [ʹ + *L. pelvis*, basin, + Gr. *peritonaion*, peritoneum, + *itis*, inflammation] Inflammation of the pelvic and peritoneal membranes with hypertrophy and thickening of their surfaces.

**pachyperostitis** (păk'ē-pēr'ō-s-ōs-tī'tīs) [ʹ + *periosteum*, periosteum, + *itis*, inflammation] Thickening of the periosteum caused by inflammation.

**pachyperitonitis** (păk'ē-pēr'ī-tō-nī'tīs) [ʹ + ʹ + *itis*, inflammation] Inflammation of the peritoneum with thickening of the membrane.

**pachypleuritis** (păk-ē-plū-rī'tīs) [ʹ + *pleura*, side, + *itis*, inflammation] Inflammation of the pleura with thickening.

**pachypodous** (pă-kīp'ō-dūs) [ʹ + *pous*, foot] Having abnormally thick feet.

**pachytene** (păk'ē-tēn) [ʹ + *tainia*, band] The stage in meiosis following zygotene, in which the paired homologous chromosomes become shorter, thicker, and form tetrads; crossing over may take place.

**pachytrichous** (păk'ī-trīk'ūs) Presence of enlarged hair fibers.

**pachyvaginitis** (păk'ē-văj'īn-ă-lī'tīs) [ʹ + *L. vagina*, sheath, + Gr. *itis*, inflammation] Inflammation of the tunica vaginalis of the testes.

**pachyvaginitis** (păk'ē-văj'īn-ī'tīs) Chronic inflammation of the vagina with thickening of the vaginal walls.

**pacifier** An artificial nipple, usually made of plastic, provided for infants to satisfy their need to suck.

**pacing** (pās'ing) [L. *passus*, a step] 1. Setting the rate or tempo of an event, esp. the heartbeat. SEE: *pacemaker*. 2. Walking forward and back or side to side without a defined destination. It is a symptom of anxiety, stress, or of some people affected by dementia.

**asynchronous p.** Cardiac pacing set at a rate independent of the heart's own pacemakers. This allows pacemaking at heart rates that are faster or slower than the patient's diseased pacemaker.

**epicardial p.** Electrical pacing of the heart by conductive leads inserted surgically, usually during bypass graft or valvular operations. The leads are used in the postoperative period for the management of heart blocks or dysrhythmias and are removed as the patient stabilizes.

**override p.** Using a pacemaker to generate a heart rate that is faster than the spontaneous heart rate of the patient. This is used in attempts to capture and terminate tachycardias or, in some cases, to try to trigger and study tachycardias in patients who have suffered them in the past.

**synchronous p.** Cardiac pacing set at a rate matching the underlying rate of one of the heart chambers.

**transcutaneous p.** The application of an electrical current between electrodes placed on the skin to stimulate the heart to beat. Typically, the electrodes are placed on the anterior and posterior chest, or to the right of the sternum and below the clavicle and on the midaxillary line at the level of the sixth to seventh ribs. Also called *external pacing*, *noninvasive pacing*, *external thoracic pacing*, and *transchest pacing*.

**pacing code** A code of three to five letters used for describing pacemaker type and function. The first letter indicates the chamber or chambers paced: V for ventricle, A for atrium, or D for dual, i.e., for pacing of both chambers. The second letter, which may also be V, A, or D, indicates the chamber from which electrical activity is sensed. The third letter indicates the response to the sensed electrical activity: O indicates no response to the electrical activity sensed; I, inhibition of the pacing action; T, triggering of the pacemaker function; and D, that a dual response of spontaneous atrial and ventricular activity will inhibit atrial and ventricular pacing. The fourth letter, previously used to describe programmable functions, is now used to designate variability of the pace rate with metabolic need. A fifth letter may indicate antitachycardia-pacing capability, but this is more usually incorporated into automatic implantable defibrillators. SEE: *pacemaker*; *artificial cardiac pacemaker*.

**pacing wire** Pacemaker electrode.

**pacinian corpuscles** (pă-sin'ē-ăn) [Filippo Pacini, It. anatomist, 1812–1883] Encapsulated sensory nerve endings found in subcutaneous tissue and many other parts of the body (pancreas, penis, clitoris, nipple). These corpuscles are sensitive to deep or heavy pressure. SYN: *Vater's corpuscles*.

**pack** (pāk) [AS. *pak*] **1.** A dry or moist, hot or cold blanket or sheet wrapped around a patient and used for treatment. **2.** To fill up a cavity with cotton, gauze, or a similar substance.

**cold p.** **1.** A bulky dressing containing icewater, cubed or crushed ice, or gel, which is refrigerated and used topically to control pain or inflammation. SYN: *ice pack*. **2.** A rarely used form of physical restraint, once popular in psychiatric practice. The restless, insomniac, or uncooperative patient was wrapped in two or more sheets that had been placed in cold water and wrung out before application, and then in heavy blankets to prevent loss of cooling and evaporation of moisture.

**dry p.** A procedure that is used in combination with a hot bath to induce perspiration. When leaving the hot bath, the patient is placed in a dry warm sheet and wrapped in several warm blankets.

**full p.** Any pack that enwraps the entire body.

**half p.** A wet-sheet pack extending from the axillae to below the knees.

**hot p.** A type of superficial moist heat applied to reduce pain and promote muscle relaxation. The pack is heated to 65° to 90°C in hot water. The pack is then wrapped with terrycloth prior to application.

**ice p.** Cold pack.

**partial p.** A wet pack that covers a portion of the body.

**periodontal p.** A surgical dressing applied over an area involved in periodontal surgery to enhance healing and tissue recovery. Components may include eugenol, resin, zinc oxide, tannic acid, cocoa butter, paraffin, olive oil, and an antibiotic. SYN: *periodontal dressing*.

**wet-dry p.** A pack or dressing placed in a wound or ulcer in order to facilitate healing or débride necrotic tissues. The dressing is moistened with the prescribed solution (e.g., sterile saline) prior to packing the wound. The dressing is then packed into the open wound. During the next dressing change, the removal of the dried packing débrides the wound. Alternatives to wet-dry dressings include gels and hydrocolloids, among others.

**wet-sheet p.** The envelopment of a patient in wet sheets or blankets; a technique formerly used to treat hyperthermia. They are held against the body

by large woolen blankets. The temperature of the water used for the sheets varies, depending on the purpose.

**package insert** An informational leaflet placed inside the container or package of prescription drugs. The U.S. Food and Drug Administration requires that the drug's generic name, indications, contraindications, adverse effects, dosage, and route of administration be described in the leaflet.

**packed cells, packed red blood cells** ABBR: PRBCs. Red blood cells that have been separated from plasma. They are used to treat conditions such as hemorrhage or symptomatic anemias that require transfusions of red blood cells but not the liquid components of whole blood. The transfusion of PRBCs in place of whole blood elevates hemoglobin levels and reduces the likelihood of fluid overload in the recipient.

**packer** (pāk'ēr) A device for packing a cavity or a wound.

**packing** (pāk'ing) **1.** The process of filling a cavity or wound with gauze sponges or gauze strips. **2.** Material used to fill a cavity or wound.

**pack-year** The consumption of a pack of cigarettes daily for a year (approximately 365 packs of cigarettes annually). The number of pack-years that people smoke correlates closely with the amount of damage that tobacco does to their hearts, lungs, and other organs.

**Paco<sub>2</sub>** Partial pressure of carbon dioxide in the arterial blood; arterial carbon dioxide concentration or tension. It is usually expressed in millimeters of mercury (mm Hg).

**pad** (pād) **1.** A cushion of soft material, usually cotton or rayon, used to apply pressure, relieve pressure, or support an organ or part. **2.** A fleshlike or fatty mass.

**abdominal p.** A dressing for absorbing discharges from surgical wounds of the abdomen.

**buccal fat p.** Sucking p.

**dinner p.** A pad placed on the abdomen before application of a plaster cast. The pad is then removed, leaving space for abdominal distention after meals.

**fat p.** **1.** Sucking p. **2.** A layer of adipose tissue (usually capsulated) that protects structures from direct impact. Fat pads are found in various locations in the body: beneath the patellar tendon; under the calcaneus; or behind the elbow.

**kidney p.** An air or water pad fixed on an abdominal belt for compression over a movable kidney.

**knuckle p.** A congenital condition in which small nodules appear on the dorsal side of fingers.

**perineal p.** A pad covering the perineum; used to cover a wound or to absorb the menstrual flow.



**sucking p.** A mass of fat in the cheeks, esp. well developed in an infant, aiding sucking. SYN: *Bichat's fat pad*; *buccal fat pad*.

**surgical p.** A soft rubber pad with an apron and inflatable rim for drainage of escaping fluids; used in surgery and obstetrics.

**paed-, paedo-** SEE: *pedo-*.

**Paederus** (pēd'ēr-ūs) [NL] A genus of beetles that contain the toxin pederin.

**PAF** 1. *paroxysmal atrial fibrillation*.  
2. *platelet aggregating factor*.

**Page kidney** (pāj) Compression of a kidney, usually by a hematoma or tumor, with resulting hypertension.

**Paget, Sir James** (pāj'ēt) British surgeon, 1814–1899.

**extramammary P.'s disease** A plaque with a definite margin found in the anogenital area and in the axilla. It is a rare malignant disease and is treated by surgical excision.

**mammary P.'s disease** Carcinoma of the mammary ducts.

**P.'s disease** A chronic form of osteitis of unknown cause affecting older people, causing thickening and hypertrophy of the long bones and deformity of the flat bones. SYN: *osteitis deformans*.

**SYMPTOMS:** Symptoms are insidious in onset and include pain in the lower limbs (esp. the tibia), frequent fractures, waddling gait, and shortened stature. The skull often becomes enlarged, and hearing may be affected.

**TREATMENT:** Common treatments include bisphosphonate drugs (e.g., alendronate and etidronate). Acetaminophen, aspirin, and other nonsteroidal anti-inflammatory drugs are often used to control pain.

**pagetoid** (paj'ē-toyd) [*Paget* + Gr. *eidōs*, form, shape] Similar to Paget's disease.

**Paget-Schreutter syndrome** (pāj'ēt shroy'tēr) Deep venous thrombosis in the axillary and/or subclavian vein. The condition is usually recognized in athletes or laborers who use (or overuse) the upper extremities (e.g., in sports). It may produce uncomfortable swelling of the arm with dilation of the superficial veins. The diagnosis is confirmed with ultrasonography and treated with anticoagulants, thrombolytic drugs, or surgery. SYN: *effort thrombosis*.

**page turner** An assistive technology device for persons with limited or absent upper extremity movement; used to turn the pages of a book.

**pagophagia** (pā'gō-fā'jē-ä) [Gr. *pagos*, frost, + *phagein*, to eat] A form of pica characterized by excessive consumption of ice or ice drinks. Causally associated with iron-deficiency anemia.

**-pagus** [Gr. *pagos*, thing fixed] A terminal combining form indicating twins joined together at the site indicated in

the initial part of the word. SEE: *cran-iopagus*.

**PAH, PAHA** *para-aminohippuric acid*.

**pain** (pān) [L. *poena*, a fine, a penalty, punishment] As defined by the International Association for the Study of Pain, an unpleasant sensory and emotional experience arising from actual or potential tissue damage or described in terms of such damage. Pain includes not only the perception of an uncomfortable stimulus but also the response to that perception. About half of the persons who seek medical help do so because of the primary complaint of pain. Acute pain occurs with an injury or illness; is often accompanied by anxiety, diaphoresis, nausea, and vital sign changes such as tachycardia or hypertension; and should end after the noxious stimulus is removed or any organ damage heals. Chronic or persistent pain is discomfort that lasts beyond the normal healing period. Pain may arise in nearly any organ system and may have different characteristics in each. Musculoskeletal pain often is exacerbated by movement and may be accompanied by joint swelling or muscle spasm. Myofascial pain is marked by trigger-point tenderness. Visceral pain often is diffuse or vaguely localized, whereas pain from the lining of body cavities often is localized precisely, very intense, and exquisitely sensitive to palpation or movement. Neuropathic (nerve) pain usually stings or burns, or may be described as numbness, tingling, or shooting sensations. Colicky pain fluctuates in intensity from severe to mild, and usually occurs in waves. Referred pain results when an injury or disease occurs in one body part but is felt in another.

Several factors influence the experience of pain. Among these are the nature of the injury or illness causing the symptom, the physical and emotional health of the patient, the acuity or chronicity of the symptom, the social milieu and/or cultural upbringing of the patient, neurochemistry, memory, personality, and other features. SEE: table.

**SYMPTOMS:** Many clinicians use the mnemonic "COLDER" to aid the diagnosis of painful diseases. They will ask the patient to describe the Character, Onset, Location, and Duration of their painful symptoms, as well as the features that Exacerbate or Relieve it. For example: The pain of pleurisy typically is sharp in character, acute in onset, located along the chest wall, and long-lasting; it is worsened by deep breathing or coughing and relieved by analgesics or holding still. By contrast, the pain of myocardial ischemia usually is dull or heavy, gradual in onset, and located substernally. It may be worsened by ac-

## Usual Adult Doses and Intervals of Drugs for Relief of Pain

Nonopioid Analgesics			
Generic Name	Dose, mg *	Interval	Comments
Acetylsalicylic acid	325–650	4–24 hr	Enteric-coated preparations available
Acetaminophen	650	4 hr	Avoid in liver failure
Ibuprofen	400–800	4–8 hr	Available without prescription
Indomethacin	25–75	8 hr	Gastrointestinal and kidney side effects common
Naproxen	250–500	12 hr	Delayed effects may be due to long half-life
Ketorolac	15–60 IM	4–6 hr	Similar to ibuprofen but more potent
Opioid Analgesics			
Generic Name	Parenteral Dose (mg)	PO Dose (mg)	Comments
Codeine	30–60 every 4 hr	30–60 every 4 hr	Nausea common
Hydromorphone	1–2 every 4 hr	2–4 every 4 hr	Shorter acting than morphine sulfate
Levorphanol	2 every 6–8 hr	4 every 6 hr	Longer acting than morphine sulfate; absorbed well PO
Methadone	10–100	6–24 hr	Delayed sedation due to long half-life
Meperidine	25–100	300 every 4 hr	Poorly absorbed PO; normeperidine is a toxic metabolite
Morphine	10 every 4 hr	60 every 4 hr	
Morphine, sustained release	30–90	60–180 2 or 3 times daily	
Oxycodone	—	5–10 every 4–6 hr	Usually available with acetaminophen or aspirin

\* By mouth unless indicated otherwise.

PO—by mouth only.

SOURCE: Adapted from Isselbacher, K.J., et al.: *Harrison's Principles of Internal Medicine*, ed 13. McGraw-Hill, New York, 1994.

tivity (but not by taking a breath or coughing) and relieved by nitroglycerin.

In 2000, the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) issued pain-management standards, in 2001 began surveying for compliance, and in 2004 added patient-safety goals, thus most U.S. health care facilities have devised policies and procedures that require pain-intensity rating as a routine part of care (the fifth vital sign). Pain intensity usually is assessed on a numerical scale, in which 0 = no pain, 1 to 3 = mild pain, 4 to 6 = moderate pain, and 7 to 10 = severe pain. However, obtaining a numerical rating of pain intensity is possible only if the patient is able to provide this report of the pain being experienced, which infants, children, the critically ill, and cognitively impaired usually are unable to do. The Wong' Baker FACES scale, developed for pediatric use, has been used successfully in other patient populations. It uses visual representa-

tions of smiles or grimaces to depict the level of pain a patient feels.

**PATIENT CARE:** Health care professionals must be aware that pain in nonverbal patient can easily be overlooked and must make a conscious effort to ensure that pain in these patients is assessed and treated. Observing subtle behaviors and being sensitive to contextual clues are two pain methods used by health care professionals to try to determine when nonverbal patients are in pain. When this judgment is made, a trial of pain-relieving medication may be used. The responses of the patient and any complications of treatment should be carefully observed and appropriate changes made in dosing or the type of analgesic drug as indicated.

Because pain is a subjective and intensely personal problem, sympathetic care is an important part of its relief. In addition to administering analgesic drugs, health care professionals should use a wide range of techniques to help

alleviate pain, including local application of cold and heat, tactile stimulation, relaxation techniques, diversion, and active listening, among others.

**acute p.** Pain that typically is produced by sudden injury (e.g., fracture) or illness (e.g., acute infection) and is accompanied by physical signs such as increased heart rate, elevated blood pressure, pupillary dilation, sweating, or hyperventilation. Depending on the severity of the underlying stimulus, acute pain may be managed with acetaminophen or anti-inflammatory drugs, immobilization and elevation of the injured body part, or the topical application of heat or ice. Severe acute pain, such as that of broken ribs or of an ischemic part, may require narcotics, often with adjunctive agents like hydroxyzine for relief, or antiemetics. Acute pain should be managed aggressively. SEE: *Nursing Diagnoses Appendix*.

**adnexal p.** Discomfort arising from the fallopian tubes and ovaries; usually due to inflammation, infection, or ectopic pregnancy.

**back p.** Pain felt in or along the spine or musculature of the posterior thorax. It is usually characterized by dull, continuous pain and tenderness in the muscles or their attachments in the lower lumbar, lumbosacral, or sacroiliac regions. Back pain is often referred to the leg or legs, following the distribution of the sciatic nerve.

**ETIOLOGY:** Common causes of back pain include pain caused by muscular or tendon strain, herniated intervertebral disk, lumbar spinal stenosis, or spondylolisthesis. Patients with a history of cancer may have back pain caused by metastatic tumors to the vertebrae and should be evaluated to be certain that damage to the spinal cord is not imminent. Patients with back pain and fever (esp. those with a history of injection drug use, tuberculosis, or recent back surgery) should be evaluated for epidural abscess or osteomyelitis.

**TREATMENT:** Depending on the underlying cause of the back pain, treatment may include drugs, rest, massage, physical therapy, chiropractic, stretching exercises, injection therapy, and surgery, among others. Most nonmalignant causes of back pain improve with a few days of rest, analgesics, and anti-inflammatory drugs, followed by 2 to 4 weeks of anti-inflammatory treatment, appropriate muscle strengthening, and patience. Pain caused by an osteoporotic fracture may prove more debilitating and longer-lasting. Back pain produced by a spinal metastasis can improve with corticosteroids, radiation therapy, intravenous bisphosphonates, and/or surgical decompression. Patients with a spinal epidural abscess will need surgi-

cal drainage of the infection and antibiotics.

**PATIENT CARE:** Prolonged bedrest is inadvisable in most patients with back pain. The treatment regimen is explained, implemented, and reinforced. Factors that precipitate symptoms are identified and preventive actions are discussed.

**bearing-down p.** Rectal pressure and discomfort occurring during the second stage of labor, related to fetal descent and the woman's straining efforts to expel the fetus.

**boring p.** Piercing, used to describe pain felt deep within the body.

**Brodie's p.** Pain caused near a joint affected with neuralgia when the skin is folded near it.

**burning p.** Pain experienced in heat burns, superficial skin lesions, herpes zoster, and circumscribed neuralgias.

**central p.** Pain due to a lesion in the central nervous system.

**chest p.** Discomfort felt in the upper abdomen, thorax, neck, or shoulders. Chest pain is one of the most common potentially serious complaints offered by patients in emergency departments, hospitals, outpatient settings, and physicians' offices. A broad array of diseases and conditions may cause it, including (but not limited to) angina pectoris or myocardial infarction; anxiety and hyperventilation; aortic dissection; costochondritis or injured ribs; cough, pneumonia, pleurisy, pneumothorax, or pulmonary emboli; esophageal diseases, such as reflux or esophagitis; gastritis, duodenitis, or peptic ulcer; and stones in the biliary tree.

**chronic p.** **1.** Long-lasting discomfort, with episodic exacerbations, that may be felt in the back, one or more joints, the pelvis, or other parts of the body. **2.** Pain that lasts more than 3–6 months. **3.** Pain that lasts more than a month longer than the usual or expected course of an illness. **4.** Pain that returns periodically every few weeks or months for many years. Chronic pain is often described by sufferers as being debilitating, intolerable, disabling, or alienating and may occur without an easily identifiable cause. Studies have shown a high correlation between chronic pain and depression or dysphoria, but it is unclear whether the psychological aspects of chronic pain precede or develop as a result of a person's subjective suffering. Chronic pain is the leading cause of disability in the U.S. SEE: *acute p.*; *Nursing Diagnoses Appendix*.

**PATIENT CARE:** The management of chronic, nonmalignant pain is often difficult and may be frustrating for both sufferer and caregiver. The best results are usually obtained through multi-



modal therapy that combines sympathetic guidance that encourages patients to recover functional abilities, by combinations of drugs (e.g., nonsteroidal anti-inflammatories, narcotic analgesics, and/or antidepressants), physical therapy and regular exercise, occupational therapy, psychiatry, psychological or social counseling, and alternative medical therapies (e.g., acupuncture, massage, or relaxation techniques). Placebos, although rarely employed clinically, effectively treat chronic pain in about a third of all patients. Surgery and other invasive strategies are occasionally employed, with variable effectiveness.

**cramplike p.** Cramp.

**dental p.** Pain in the oral area, which, in general, may be of two origins. Soft tissue pain may be acute or chronic, and a burning pain is due to surface lesions and usually can be discretely localized; pulpal pain or tooth pain varies according to whether it is acute or chronic, but it is often difficult to localize.

**dilating p.** Discomfort accompanying rhythmic uterine contractions during the first stage of labor.

**diskogenic p.** Low back pain resulting from degeneration of an intervertebral disk. Discogenic pain differs from sciatic pain in that it does not radiate along the course of the sciatic nerve into the buttocks, hip, or leg.

**dull p.** A mild discomfort, often difficult to describe, that may be associated with some musculoskeletal injuries or some diseases of the visceral organs.

**eccentric p.** Pain occurring in peripheral structures owing to a lesion involving the posterior roots of the spinal nerves.

**epigastric p.** Pain located between the xiphoid process and the umbilicus. It may suggest a problem in one of many different organs, including the stomach, pancreas, gallbladder, small or large bowel, pleura, or heart. SYN: *gastralgic pain*. SEE: *cardialgia*.

**expulsive p.** Discomfort during the second stage of labor, associated with bearing-down efforts to expel the fetus. Women may experience a similar pain during delivery of the placenta.

**false p.** Abdominal discomfort associated with Braxton Hicks contractions, which occur during the last trimester of pregnancy. Characteristically, the woman complains of irregular, lower abdominal pains, which are relieved by walking. Vaginal examination shows no change in cervical effacement or dilation. SEE: *Braxton Hicks contractions*.

**fulgurant p.** Lightning p.

**gallbladder p.** Biliary colic.

**gas p.** Pain in the intestines caused by an accumulation of gas therein.

**girdle p.** Zonesthesia.

**growing p.** An imprecise term indicating ill-defined pain, usually in the shin or other areas of the legs, typically occurring after bedtime in children age 5 to 12. There is no evidence that the pain is related to rapid growth or to emotional problems. If these symptoms occur during the daytime, are accompanied with other symptoms, or become progressively more severe, evaluation for infection, cancer, and other diseases of muscle and bone should be undertaken. In the majority of cases, this evaluation is not necessary.

**TREATMENT:** The child should be reassured and given acetaminophen or ibuprofen; heat and massage can be applied locally. Children with growing pains benefit from concern and reassurance from their parents and health care providers.

**heterotopic p.** Referred p.

**homotopic p.** Pain felt at the point of injury.

**inflammatory p.** Pain in the presence of inflammation that is increased by pressure.

**intermenstrual p.** Episodic, localized pelvic discomfort that occurs between menstrual periods, possibly accompanying ovulation. SYN: *midpain*. SEE: *mittelschmerz*.

**intractable p.** Chronic pain that is difficult or impossible to manage with standard interventions. Common causes include metastatic cancer, chronic pancreatitis, radiculopathy, spinal cord transection, or peripheral neuropathy. Intractable pain may also accompany somatoform disorders, depression, fibromyalgia, irritable bowel syndrome, and opiate dependence. Various combinations of the following management strategies are often used to treat intractable pain: antidepressant medications, counseling, deep brain stimulation, injected anesthetics, narcotic analgesics, neurological surgery, and pain clinic consultations.

**labor p.** Uncomfortable, intermittent, rhythmic, girdling sensations associated with uterine contractions during childbearing. The frequency, duration, and intensity of the events increase, climaxing with the delivery of the fetus.

**lancinating p.** Acute p.

**lightning p.** A sudden brief pain that may be repetitive, usually in the legs but may be at any location. It is associated with tabes dorsalis and other neurological disorders. SYN: *fulgurant pain*.

**lingual p.** Pain in the tongue that may be due to local lesions, glossitis, fissures, or pernicious anemia. SYN: *tongue pain*.

**lung p.** Sharp pain in the region of the lungs.

**menstrual p.** Dysmenorrhea.

**middle p.** Intermenstrual p.

**mobile p.** Pain that moves from one area to another.

**movement p.** Kinesalgia.

**neuropathic p.** Pain that originates in peripheral nerves or the central nervous system rather than in other damaged organs or tissues. A hallmark of neuropathic pain is its localization to specific dermatomes or nerve distributions. Some examples of neuropathic pain are the pain of shingles (herpes zoster), diabetic neuropathy, radiculopathy, and phantom limb pain.

**TREATMENT:** Drugs like gabapentin or pregabalin provide effective relief of neuropathic pain for some patients. Other treatments include (but are not limited to) regional nerve blocks, selective serotonin and norepinephrine reuptake inhibitors, psychological counseling, acupuncture, transcutaneous electrical nerve stimulation, and physical therapy.

**night p.** Pain that awakens the patient at night or interferes with sleep; may be due to infection, inflammation, neurovascular compromise, or severe structural damage.

**objective p.** Pain induced by some external or internal irritant, by inflammation, or by injury to nerves, organs, or other tissues that interferes with the function, nutrition, or circulation of the affected part. It is usually traceable to a definite pathologic process.

**paresthetic p.** A stinging or tingling sensation manifested in central and peripheral nerve lesions. SEE: *paresthesia*.

**periodontal p.** A discrete, well-localized pain caused by inflammation of tissues surrounding a tooth. This may be contrasted with the throbbing, nonlocalized pain typical of a toothache or pulpal pain.

**phantom limb p.** The sensation of pain felt in the nerve distribution of a body part that has been amputated. Phantom pain can lead to difficulties in prosthetic training. SYN: *phantom sensation*.

**PATIENT CARE:** Phantom limb pain or nonpainful sensations are reported by most amputees. A multimodal or combination approach to management is appropriate. Drugs used to treat neuropathic pain may be helpful, including some anticonvulsant drugs, tricyclic antidepressants, selective serotonin inhibitors, and muscle relaxants. Nerve blockade and/or transcutaneous electrical stimulation may also be helpful. Health care professionals should encourage amputees to move the affected extremity, seek counseling or group therapy, engage in physical and occupational therapy, and use distraction techniques.

**postprandial p.** Abdominal pain after eating.

**precordial p.** Pain felt in the center of the chest (e.g., below the sternum) or in the left side of the chest.

**premonitory p.** Ineffective contractions of the uterus before the beginning of true labor. SEE: *false p.*

**pseudomyelic p.** The false sensation of movement in a paralyzed limb or of no movement in a moving limb; not a true pain.

**psychogenic p.** Pain having mental, as opposed to organic, origin.

**radicular p.** Pain that radiates away from the spinal column through an extremity or the torso resulting from the compression or irritation of a spinal nerve root or large paraspinal nerve. It may be accompanied by numbness or tingling.

**referred p.** Pain that arises in one body part or location but is perceived in another. For example, pain caused by inflammation of the diaphragm often is felt in the shoulder; pain caused by myocardial ischemia may be referred to the neck or jaw; and pain caused by appendicitis may first be felt near the umbilicus rather than in the right lower quadrant, where the appendix lies. SEE: *table*. SYN: *heterotopic pain*; *sympathetic pain*. SEE: *illus.*

**remittent p.** Pain with temporary abatements in severity; characteristic of neuralgia and colic.

**rest p.** Pain due to ischemia that comes on when sitting or lying.

**root p.** Cutaneous pain caused by disease of the sensory nerve roots.

**shooting p.** Pain that seems to travel like lightning from one place to another.

**standards for p. relief** Standards for the Relief of Acute Pain and Cancer Pain developed by the American Pain Society. These are summarized as follows:

1. In order to increase the clinician's responsiveness to complaints of pain, it is now considered by some health care professionals to be the fifth vital sign.

2. Acute pain and cancer pain are recognized and effectively treated. Essential to this process is the development of a clinically useful and easy-to-use scale for rating pain and its relief. Patients will be evaluated according to the scales and the results recorded as frequently as needed.

3. Information about analgesics is readily available. This includes data concerning the effectiveness of various agents in controlling pain and the availability of equianalgesic charts wherever drugs are used for pain.

4. Patients are informed on admission of the availability of methods of relieving pain, and that they must com-

Sites of Referred Pain

Organ of Origin	Location Felt
Head	External or middle ear
Nose & sinuses	
Teeth, gums, tongue	
Throat, tonsils	
Parotid gland, TMJ joint	
Thorax	
Diaphragm	Shoulder, upper abdomen
Heart	Upper chest, L shoulder, inside L arm, L jaw
Abdomen	
Stomach & spleen	L upper abdomen
Duodenum	Upper abdomen, R shoulder
Stomach & spleen	L upper abdomen
Stomach & spleen	L upper abdomen
Stomach & spleen	L upper abdomen
Colon	Lower abdomen
Appendix	Periumbilical and R lower abdomen
Pelvis	
Appendix	Periumbilical and R lower abdomen

NOTE: L = left; R = right.

municate the presence and persistence of pain to the health care staff.

5. Explicit policies for use of advanced analgesic technologies are defined. These advances include patient-controlled analgesia, epidural analgesia, and regional analgesia. Specific instructions concerning use of these techniques must be available for the health care staff.

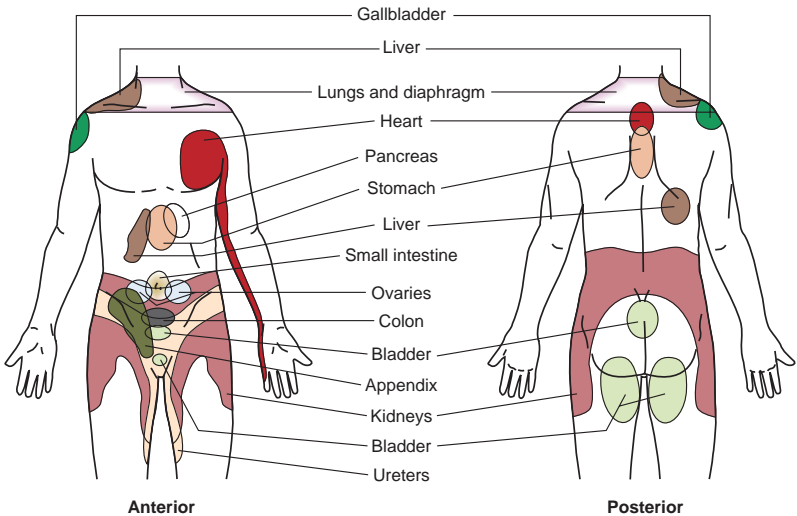
6. Adherence to standards is monitored by an interdisciplinary committee. The committee is responsible for overseeing the activities related to imple-

menting and evaluating the effectiveness of these pain standards.

**starting p.** A pain accompanied by muscular spasm during the early stages of sleep.

**subdiaphragmatic p.** A sharp stitch-like pain occurring during breathing caused, for example, by an abscess or tumor beneath the diaphragm. When the breath is held, the pain ceases. Pressure against the lower rib cage eases the pain.

**sympathetic p.** Referred p.  
**tenesmic p.** Tenesmus.



SITES OF REFERRED PAIN

**terebrant p.** A boring or piercing type of pain.

**thalamic p.** SEE: *thalamic syndrome*.

**thermalgesic p.** Pain caused by heat.

**thoracic p.** Chest pain.

**throbbing p.** Pain found in dental caries, headache, and localized inflammation. The pain is often thought to be caused by arterial pulsations.

**tracheal p.** Trachealgia.

**vascular p.** Pain that throbs or pulses, such as the pain of a migraine headache.

**wandering p.** Pain that changes its location repeatedly.

**pain and suffering** Psychological distress or discomfort experienced as a result of an injury. Estimates of pain and suffering are used to determine the extent of a patient's award in malpractice cases and the residual disability a patient may have.

**pain disorder** A disorder in which pain is the predominant symptom, is of such severity to warrant clinical attention, and interferes with function. Psychological factors are important in the onset, severity, exacerbation, or maintenance of the pain. The condition is not intentionally produced or feigned.

**painful arc** During active movement of an extremity, a portion of the range of motion in which pain is perceived. Pain is usually due to pinching of soft tissues at only a specific portion of the range of motion. A painful arc may be caused by tendonitis or bursitis.

**painful articular syndrome** Acute pain affecting the large joints (e.g., the ankles, elbows, knees, and/or shoulders) of those infected with human immunodeficiency virus (HIV)/acquired immune deficiency syndrome (AIDS). Its cause is not clearly defined, but HIV infection of the joints is thought to be one explanation.

**painful bladder syndrome** A colloquial, commonly used term for interstitial nephritis.

**paint** (pānt) **1.** A solution of medication for application to the skin. **2.** To apply a medicated liquid to the skin.

**pain threshold** The minimum level of sensory stimulation that a person will perceive as being unpleasant, noxious, or intolerable.

**pair** Two of anything similar in shape, size, and conformation.

**base p.** In the double-stranded helical arrangement of DNA, the purine bases (i.e., base pairs) that are either an adenine-thymine pair or a guanine-cytosine pair. These base pairs connect the helical strands of DNA like the steps of a spiral staircase.

**ion p.** Two particles of opposite charge, usually an electron and a proton.

**PAL** *posterior axillary line*.

**palatable** (pāl'āt-ā-b'l) [L. *palatum*, pal-

ate] Pleasing to the palate or taste, as food.

**palatal** (pāl'ā-tāl) Pert. to the roof of the mouth, the palate.

**palatal expansion appliance** A removable orthodontic appliance equipped to provide the force for tooth movement. It may be used continuously or intermittently.

**palate** (pāl'ät) [L. *palatum*, palate] The horizontal structure separating the mouth and the nasal cavity; the roof of the mouth, supported anteriorly by the maxillae and palatine bones. SEE: *mouth* for illus.

**DISEASES AFFECTING THE PALATE:**

**Koplik's spots:** This rash is frequently seen on the palate in measles. **Secondary syphilis:** This is indicated by mucous patches on the palate. **Herpes of the throat:** This is characterized by vesicles on the pharyngeal walls and soft palate. **Swelling of uvula:** This is noted in inflammations of pharynx and tonsil and in nephritis, severe anemia, and angioneurotic edema. In diphtheria and Vincent's angina, a membranous exudate appears. In some hemorrhagic diatheses, bloody extravasation appears. **Kaposi's sarcoma:** Dark purplish-red lesions may be found on the hard and soft palate. **Paralysis:** This may result from diphtheria, bulbar paralysis, neuritis, basal meningitis, or a tumor at the base of the brain. **Anesthesia:** This is seen in pathological conditions of the second division of the fifth nerve.

**artificial p.** A prosthetic device molded to fill a cleft in the palate.

**bony p.** Hard p.

**cleft p.** A congenital fissure in the roof of the mouth forming a communicating passageway between mouth and nasal cavities. It may be unilateral or bilateral and complete or incomplete. SYN: *palatoschisis*.

**gothic p.** An excessively high palatal arch.

**hard p.** The anterior part of the palate supported by the maxillary and palatine bones. SYN: *bony palate*.

**incomplete p.** A cleft involving only a part of the hard or soft palate.

**secondary p.** In the embryo, the palate formed from the maxillary arches and frontonasal processes.

**soft p.** A musculomembranous fold that partly separates the mouth and the pharynx; the posterior roof of the mouth. It is elevated during swallowing to block the nasopharynx.

**palatine** (pāl'ā-tīn) [L. *palatinus*] **1.** Pert. to the palate. **2.** Pert. to the rear palatal bones.

**palatine arches** Two archlike folds of mucous membrane (glossopalatine and pharyngopalatine arches) that form the lateral margins of faucial and pharyngeal isthmuses. They are continuous above with the soft palate.

**palatitis** (pāl-ät-i'tis) [L. *palatum*, pal-

ate, + Gr. *itis*, inflammation] Inflammation of the palate.

**palatoglossal** (pāl'ā-tō-glōs'āl) Concerning the palate and tongue.

**palatoglossus** (pāl'ā-tō-glōs'ūs) [l' + Gr. *glossa*, tongue] The muscle arising from the sides and undersurface of the tongue. Fibers pass upward through glossoepalatine arch and are inserted in palatine aponeurosis. It constricts the faucial isthmus by raising the root of the tongue and drawing the sides of the soft palate downward.

**palatognathous** (pāl'ā-tōg'nā-thūs) [l' + Gr. *gnathos*, jaw] Having a congenital cleft in the palate.

**palatography** (pāl'ā-tōg'rā-fē) [l' + Gr. *graphein*, to write] **1.** Recording of the movements of the palate in speech. **2.** Radiographical examination of the soft palate after injection of a contrast medium.

**palatopharyngeal** (pāl'ā-tō-fā-rīn'jē-āl) Concerning the palate and pharynx.

**palatopharyngeus** (pāl'āt-ō-fā'rīn'jē-ūs) [l' + Gr. *pharynx*, throat] The muscle arising from thyroid cartilage and pharyngeal wall, extending upward in posterior pillar, and inserting into aponeurosis of soft palate. It constricts the pharyngeal isthmus, raises the larynx, and depresses the soft palate.

**palatopharyngoplasty** (pāl'ā-tō-fā-rīng'gō-plās'tē) Plastic surgical procedure for decreasing the size of the opening of the nasopharyngeal passageway. It has been used to treat chronic snoring.

**palatoplasty** (pāl'āt-ō-plās'tē) [l' + Gr. *plassein*, to form] Plastic surgery of the palate, usually to correct a cleft. SEE: *staphylorrhaphy*.

**palatoplegia** (pāl'ā-tō-plē'jē-ā) [l' + Gr. *plege*, stroke] Paralysis of muscles of the soft palate. SEE: *palate*.

**palatorrhaphy** (pāl-ā-tor'ā-fē) [l' + Gr. *rhaphe*, seam, ridge] An operation for uniting a cleft palate. SYN: *staphylorrhaphy*.

**palatosalpingeus** (pāl'ā-tō-sāl-pīn'jē-ūs) [l' + Gr. *salpinx*, tube] The tensor veli palatini muscle.

**palatoschisis** (pāl-ā-tōs'kī-sīs) [l' + *schisis*, a splitting] Cleft palate.

**paleocerebellum** (pāl'ē-ō-sēr'ē-bēl'üm) [Gr. *palaios*, old, + L. *cerebellum*, little brain] Phylogenetically, the older portion of the cerebellum including the flocculi, certain parts of the vermis (lingula, nodulus, uvula), and the lobulus centralis (culmen, pyramis, uvula, and simple lobule). These parts are concerned primarily with equilibrium and coordination of locomotion.

**paleokinetic** (pāl'ē-ō-kī-nēt'ik) [l' + *kinetikos*, concerning movement] Regarding a peripheral motor nervous system controlling automatic associated movements. It is older phylogenetically than the system controlling voluntary movement.

**paleopallium** (pāl'ē-ō-pāl'ē-üm) [Gr. *palaios*, old + L. *pallium*, cloak] The parts of the rhinencephalon that receive direct input from the olfactory bulb.

**paleostriatum** (pāl'ē-ō-strī-ā'tüm) An obsolete term for a part of the striatum SEE: *neostriatum*.

**pali-, palin-** [Gr. *palin*, backward, again] Prefixes meaning *recurrence, repetition*.

**palilalia** (pāl-i-lā'lē-ā) [l' + *lalein*, to speak] Involuntary repetition of words or phrases.

**palinacousis** (pāl'in-ā-koo'sīs) [l' + Gr. *akouein*, hear] The perception of repetitive auditory sensations, sometimes confused with auditory or musical hallucinations. It is usually a symptom of a lesion such as a tumor or a seizure focus in the temporal lobe of the brain.

**palindromia** (pāl-in-drō'mē-ā) [l' + *dromos*, a running] The recurrence of a disease or a relapse.

**palindromic** (pāl-in-drōm'ik) Relapsing. **palingraphia** (pāl'in-grāf'ē-ā) [l' + *graphein*, to write] Pathological repetition of words or phrases in writing.

**palinopsia** (pāl'in-ōp'sē-ā) [l' + *opsis*, vision] Persistence of a visual image after the object has been removed. It may be associated with a lesion in the occipital lobe of the brain. SEE: *afterimage*.

**palladium** (pā-lā'dē-üm) [L.] SYMB: Pd. A metallic element used in dentistry and surgical instruments; atomic weight 106.4; atomic number 46.

**pallesthesia** (pāl-ēs-thē'zē-ā) [Gr. *pallein*, to shake, + *aisthesis*, sensation] The sensation of vibration felt in the skin or bones, as that produced by a tuning fork held against the body.

**palliate** (pāl'ē-āt) [L. *palliatus*, cloaked] To ease or reduce effect or intensity, esp. of a disease; to allay temporarily, as pain, without curing.

**palliation** (pāl'ē-ā'shūn) [L. *palliare*, to cloak, conceal] The alleviation of some aspects of a disease, e.g., the reduction of the pain and suffering accompanying an illness.

**palliative** (pāl'ē-ā'tiv) **1.** Relieving or alleviating without curing. **2.** An agent that alleviates or eases a painful or uncomfortable condition.

**palliative sedation** The administration of sedative and hypnotic drugs to dying patients to induce coma and alleviate pain and suffering. It is a technique used in end-of-life care when other measures to achieve comfort for the dying patient have failed. Medications such as barbiturates and opiates are used to tranquilize the patient. The intent is not to hasten death, although ultimately, palliative sedation induces a coma from which the patient will not awaken.

**palliative treatment** Treatment designed to relieve symptoms of disease rather than to cure it. SEE: *table*.



## Important Considerations in Palliative Care

### Communication

How should patients be informed of their illness and prognosis?  
Who meets the ongoing information needs of patients and their loved ones?

### Symptom Management

Does the patient have pain? How is it to be alleviated?  
Does the patient have difficulty breathing?  
Does the patient have nausea and/or vomiting?  
Does the patient have difficulties with nutrition?  
With oral ulcerations or dry mouth?  
With constipation or bowel obstruction?  
With dehydration?  
With incontinence?  
With immobility?  
With insomnia and other sleep disturbances?  
With delirium?  
With depression?  
With adverse drug reactions?  
With excessive sedation?  
What techniques will be used to help manage patients with specific illnesses (e.g., AIDS, cancer, dementias, heart failure, renal failure, stroke, among others)?

### Treatment Issues

Which procedures or treatments would the patient like to have?  
Which should patient like to avoid?  
How will complementary or alternative therapies be incorporated into management of the illness?  
When are transfusions indicated?  
What role does chemotherapy, radiotherapy, or surgery play in palliation?

### Social Needs

How will family or friends support the patient during the illness?  
How will their needs be met?  
Will someone be designated to serve as family spokesperson?  
How will children learn about the illness, or the impending death of a family member?  
Do patients have culturally specific issues the care team needs to address?

### Institutional Issues

Where will palliative care take place? (Home? Day care? Hospice? Nursing home? Hospital? Prison? Psychiatric institution?)  
What staff members will help provide care for the affected person?  
How are professional staff educated in the art and science of palliation?  
How is continuing education to be provided to staff?  
How will errors in palliation be addressed?  
What mechanisms are in place for feedback from patients or their loved ones?  
For self-criticism by the palliative team?

### Legal Issues

What laws or regulations govern the use of palliative methods in the community?  
Does the patient have an advanced directive regarding life-sustaining therapies?  
Has the patient designated a decision maker to guide palliative efforts, should the need arise?

### Financial Issues

Who pays for care?  
How do budget constraints limit or define care?

### Important Considerations in Palliative Care (Continued)

Spiritual Needs
Are the philosophical and/or spiritual needs of the patient being met? Is the patient having difficulties with existential issues (meaning of life? meaning of death? imminence of death?)?
Issues at the End of Life
Has the patient expressed an interest in life support? What limits, if any, has the patient specified? Has the patient expressed an interest in hospice care? Has the patient expressed an interest in physician assistance to hasten death?
Issues after Death
How will the grief and bereavement issues of the patient's closest partners be addressed? What follow-up will be provided to grieving friends and family?

**pallid** (pāl'íd) [L. *pallidus*, pale] Lacking color, pale, wan.

**pallidal** (pāl'í-dál) Concerning the pallidum of the brain.

**pallidectomy** (pāl'í-děk'tō-mē) [L. *pallidum*, pallidum, + Gr. *ektome*, excision] Surgical, chemical, electrical, or cryogenic removal or inactivation of the globus pallidus of the brain.

**pallidoansotomy** (pāl'í-dō-án-sōt'ō-mē) [ʹ + *ansa*, a handle, + Gr. *tome*, incision] Production of lesions in the globus pallidus and ansa lenticularis of the brain.

**pallidotomy** (pāl'í-dōt'ō-mē) [ʹ + Gr. *tome*, incision] Surgical destruction of the globus pallidus done to treat involuntary movements or muscular rigidity. The procedure is used experimentally in treating patients with Parkinson's disease.

**pallidum** (pāl'í-dŭm) [L.] The globus pallidus of the lenticular nucleus in the corpus striatum.

**pallium** (pāl'ē-ŭm) [L., cloak] The cerebral cortex and its adjacent white matter.

**pallor** (pāl'or) [L.] Lack of color; paleness. SEE: *skin*.

**palm** [L. *palma*, hand] The anterior or flexor surface of the hand from the wrist to the fingers. SYN: *palma*; *vola manus*. SEE: *thenar*.

**palmar** (pāl'mār) Concerning the palm of the hand.

**p. cuff** Universal cuff.

**palmaris** (pāl-mā'ris) One of two muscles, palmaris brevis and palmaris longus.

**palmar-plantar erythrodysesthesia** A toxic effect of chemotherapy, characterized by burning or tingling discomfort in the hands and the soles of the feet occurring after the administration of cancer chemotherapy. Red, violet, and swollen skin may develop on the hands and feet and may shed, crust, or ulcerate. Additional cycles of chemotherapy worsen the effect.

**palmatore** (pāl'mā-tŭr) [L. *palma*, hand] A pathological condition in which the fingers are joined or united.

**palmitin** (pāl'mí-tĭn) An ester of glycerol and palmitic acid, derived from fat of both animal and vegetable origin.

**palmo-plantar** (pāl'mō-plān'tār) Pert. to the palms of the hands and soles of the feet.

**palmus** (pāl'mŭs) [Gr. *palmos*, pulsation, quivering] **1.** Palpitation; a throb. **2.** Jerking; a disease with convulsive nervous twitching of the leg muscles, similar to jumping. **3.** Heartbeat.

**palpable** (pāl'pā-b'l) [L. *palpabilis*, stroke, touch] Perceptible, esp. by touch.

**palpate** (pāl'pāt) [L. *palpare*, to touch] To examine by touch; to feel.

**palpation** (pāl-pā'shŭn) [L. *palpatio*]

**1.** Examination by application of the hands or fingers to the external surface of the body to detect evidence of disease or abnormalities in the internal organs.

**2.** In obstetrics, a technique used to evaluate fetal presentation and position; frequency, duration, and strength of uterine contractions; status of membranes; cervical effacement and dilation; and fetal station.

**light-touch p.** The process of determining the outline of abdominal organs by lightly palpating the abdominal wall with the fingers.

**palpatopercussion** (pāl'pā-tō-pĕr-kŭsh'ŭn) Palpation combined with percussion.

**palpebra** (pāl'pĕ-brā) *pl.* **palpebrae** [L.] An eyelid.

**p. inferior** The lower eyelid.

**p. superior** The upper eyelid.

**palpebral** (pāl'pĕ-brāl) Concerning an eyelid.

**palpebral muscles** **1.** Palpebral portion of the orbicularis oculi. **2.** Levator palpebrae superioris.

**palpitate** (pāl'pī-tāt) [L. *palpitatus*, throbbing] **1.** To cause to throb. **2.** To

throb or beat intensely or rapidly, usually said of the heart.

**palpitation** (pāl-pī-tā'shŭn) A sensation of rapid or irregular beating of the heart. The beating may be described as a thudding sensation, a fluttering, or a throbbing that is felt beneath the sternum or in the neck. In clinical practice, most palpitations are felt by patients with benign premature ventricular or atrial contractions. In these patients, the sensation, although disturbing, is not associated with serious heart disease. Occasionally palpitations are caused by sustained arrhythmias, such as atrial fibrillation, atrial flutter, paroxysmal supraventricular tachycardia, or ventricular tachycardia. Electrocardiography, outpatient cardiac monitoring, or cardiology consultation may be needed to determine whether a patient's symptoms are benign or hazardous. **palpitant**, *adj.*

**arterial p.** Palpitation felt in the course of an artery.

**palpography** (pāl-pŏg'rā-fē) [Fm. *palp(ate)* + ""] A method of imaging atherosclerotic plaques with intravascular ultrasonography, in which the movement of arterial walls in response to arterial pulse pressure is measured. The greater the deformation of the arterial wall, the more the strain on the wall and therefore the greater its soft lipid content.

**PALS** (pālz) *pediatric advanced life support*.

**palsy** (paw'l zē) [ME. *palesie*, from L. *paralysis*] Paralysis.

**birth p.** Birth paralysis.

**brachial p.** Birth paralysis.

**bulbar p.** Palsy caused by degeneration of the nuclear cells of the lower cranial nerves. This causes progressive muscular paralysis.

**cerebral p.** ABBR: CP. SEE: *cerebral palsy*.

**crutch p.** Paralysis resulting from pressure on nerves in the axilla from use of a crutch.

**diver's p.** Decompression illness.

**Erb's p.** Duchenne-Erb paralysis.

**facial p.** Bell's palsy.

**lead p.** Paralysis of the extremities in lead poisoning.

**mercurial p.** Paralysis induced by mercury poisoning.

**night p.** A form of paresthesia characterized by numbness, esp. at night.

**peroneal nerve p.** Paralysis of the peroneal nerve, often caused by automobile accidents in which a pedestrian's leg is injured, by fractures of the tibia, or by other occurrences of nerve disruption or compression. It produces foot-drop.

**pressure p.** Compression paralysis.

**progressive supranuclear p.** A chronic progressive degenerative dis-

ease of the central nervous system that has its onset in middle age. Conjugate ocular palsies, dystonia of the neck, and widespread rigidity occur.

**Saturday night p.** Paralysis due to prolonged ischemia of the musculospiral nerve incident to compressing an arm against a hard edge. It occurs if the patient has been comatose or in a stupor or has fallen asleep with the arm hanging over the edge of a bed or chair. Sometimes called "Saturday night paralysis" because in some cultures individuals traditionally become intoxicated on Saturday night; while stuporous, they may remain in a position that allows nerve compression. SYN: *musculospiral paralysis; radial paralysis; Sunday morning paralysis*.

**scrivener's p.** Writer's cramp.

**wasting p.** Spinal muscular atrophy.

**Palv** *Pressure in the alveolus*.

**PAMP** *Pathogen-associated molecular patterns*.

**pampiniform** (pām-pīn'ī-form) [L. *pampinus*, tendril, + *forma*, shape] Convoluted like a tendril.

**pan-** [Gr.] Combining form indicating *all*.

**panacea** (pān-ā-sē'ā) [Gr. *panakeia*, universal remedy] A remedy for all ills; a cure-all.

**panagglutinable** (pān"ā-gloo'tī-nā-b'l) [Gr. *pan*, all, + L. *agglutinare*, to glue to] Referring to blood cells that are agglutinable by every blood group serum of the species.

**panagglutinin** (pān"ā-glū'tīn-īn) [Gr. *pan*, all, + L. *agglutinare*, to glue to] A substance capable of agglutinating corpuscles of every blood group.

**panangiitis** (pān"ān-jē-i'tīs) [" + *angeion*, vessel, + *itis*, inflammation] Inflammation of all three layers of a blood vessel (intima, media, and adventitia).

**panarteritis** (pān"ār-tē-rī'tīs) [Gr. *pan*, all, + *arteria*, artery, + *itis*, inflammation] Inflammation of all three layers of an artery (intima, media, and adventitia).

**panarthrititis** (pān"ār-thrī'tīs) [" + *arthron*, joint, + *itis*, inflammation]

1. Inflammation of all parts of a joint.

2. Inflammation of all or most of the joints of the body.

**panasthenia** (pān"ās-thē'nē-ā) [" + *astheneia*, weakness] Neurasthenia.

**panatropy** (pān-āt'rō-fē) [" + *a-*, not, + *trophe*, nourishment] Localized or generalized wasting away.

**Panax ginseng** (pān"āks jīn'sēng) [L. fm Gr., *panacea* + ""] The scientific name for Asian ginseng, also known as Chinese or Korean ginseng. This is the ginseng variety used most often in herbal remedies.

**Panax japonicus** (jā-pōn'ī-kūs,yā-) [NL.,

Japanese panacea] The scientific name for Japanese ginseng.

**Panax quinquefolius** (kwǎŋ'kwě-fō'lě-űs) [L., five-leaved panacea] The scientific name for American ginseng.

**panbronchiolitis, diffuse** (pǎn'brōng-kě-ō-lī'tis) [Gr. *pan*, entire, + L. *bronchiolus*, air passage, + Gr. *-itis*, inflammation of] A rare chronic obstructive lung disease in which small lung nodules form, sometimes in association with sinus disease. It is typically found in people of Japanese ancestry.

**pancarditis** (pǎn-kār-dī'tis) [ + *kardia*, heart, + *itis*, inflammation] Inflammation of all the structures of the heart.

**panchakarma** (pǎn'chā-kār'mā) [Sanskrit *pancha*, five + Sanskrit *karma* deed] Ayurvedic purification of the intestinal tract by induced vomiting and the administration of several kinds of enemas.

**Pancoast's syndrome** (pǎn'kōst) [Henry Khunrath Pancoast, U.S. physician, 1875-1939] A cluster of signs and symptoms that include (1) upper extremity or shoulder pain, (2) Horner's syndrome, and (3) atrophy of muscle or bone of the affected arm. It almost always is caused by a malignant neoplasm invading the brachial plexus and cervical sympathetic nerves. Rarely, it results from a tubercular or fungal infection of the same nerves.

**Pancoast's tumor** A tumor (usually from lung cancer) that spreads from the superior pulmonary sulcus into the brachial plexus and cervical sympathetic chain, producing Pancoast's syndrome.

**pancolectomy** (pǎn'kō-lěk'tō-mě) [Gr. *pan*, all, + *kolon*, colon, + *ektome*, excision] Surgical excision of the entire colon.

**pancreas** (pǎn'krē-ās) *pl.* **pancreata** [ + *kreas*, flesh] A compound acinotubular gland located behind the stomach and in front of the first and second lumbar vertebrae. The head lies within the curve of the duodenum, the tail lies near the spleen, and the middle portion constitutes the body. The pancreas is both an exocrine and an endocrine organ. The exocrine glands are acini, each with its own duct; these ducts anastomose to form the main pancreatic duct or duct of Wirsung, which joins the common bile duct and empties into the duodenum at the hepatopancreatic ampulla. An accessory pancreatic duct or duct of Santorini is often present and opens into the duodenum directly. Scattered throughout the exocrine glandular tissue are masses of cells called islets of Langerhans, endocrine glands that secrete hormones. **SEE: illus.**

**FUNCTION:** The exocrine secretion of the pancreas consists of enzymes that digest food in the small intestine, and

sodium bicarbonate to neutralize hydrochloric acid from the stomach in the duodenum. **SEE: pancreatic juice.**

The islets of Langerhans contain alpha, beta, and delta cells. Alpha cells secrete glucagon, which raises blood glucose; beta cells secrete insulin, which lowers blood glucose; delta cells secrete somatostatin, which inhibits the secretion of insulin, glucagon, growth hormone from the anterior pituitary, and gastrin from the stomach.

**DISEASES OF THE PANCREAS:** Autoimmune damage to the islets of Langerhans results in type 1 diabetes mellitus, a disease in which insulin secretion is insufficient or completely absent. Insulin-secreting tumors of the pancreas, called insulinomas, produce hypoglycemia; they are exceptionally rare. Inflammation of the pancreas, known as pancreatitis, is a common condition that often results from excessive use of alcohol or from obstruction of the exocrine secretions of the pancreas by gallstones. Pancreas divisum is a common congenital anomaly in which the main duct of the exocrine pancreas drains into an accessory pancreatic papilla instead of the duodenal papilla; it has been associated with recurring episodes of pancreatitis. **SEE: diabetes mellitus; insulin; pancreatic function test.**

**accessory p.** A small mass of pancreatic tissue close to the pancreas but detached from it.

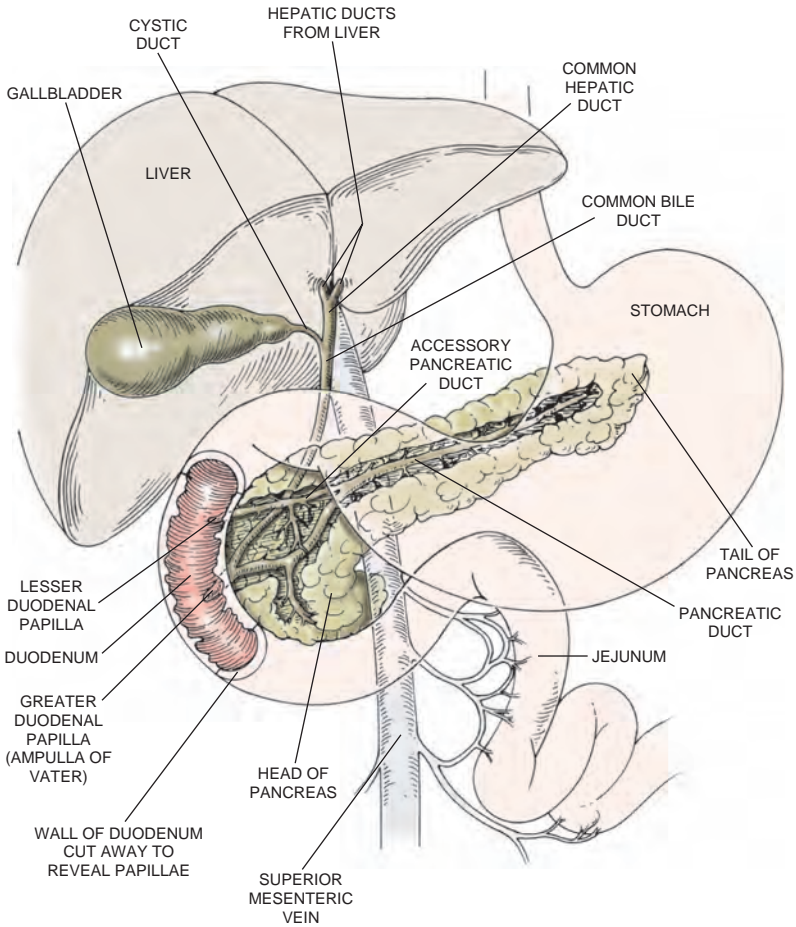
**annular p.** An anomalous condition in which a portion of the pancreas encircles the duodenum.

**p. divisum** A congenital anomaly in which the dorsal and ventral pancreatic ducts fail to unite during embryonic development. It has been associated with pancreatitis.

**dorsal p.** A dorsal outpocketing of the embryonic gut that gives rise to the body and tail of the adult pancreas.

**lesser p.** The semidetached lobular part of the posterior surface of a head of the pancreas, sometimes having a separate duct opening into the principal one.

**transplantation of the p.** The implantation of a part of the pancreas (e.g., cells of the islets of Langerhans) or the entire gland from a donor into a patient whose own pancreas is no longer functioning. In the diabetic patient, pancreas transplantation provides an endogenous source of insulin and may be combined with kidney transplantation. The risks of the surgery and the immunosuppression associated with transplantation must be weighed against the kidney, nerve, and retinal damage associated with uncontrolled diabetes mellitus. Some potential complications of the procedure include infections, blood clotting in the vessels



**PANCREAS AND ITS RELATIONSHIP TO THE DUODENUM**

that supply the graft, hypoglycemia, bladder injury, and organ rejection. To prevent rejection, immunosuppressive drugs, such as tacrolimus, mycophenolate mofetil, cyclosporine, and corticosteroids, may be used. Episodes of rejection are treated with the monoclonal antibody OKT3. The 1-year survival rate of combined pancreas-kidney transplants is about 80%, when performed at institutions where the procedure is done frequently. SEE: *diabetes mellitus*; *rejection*.

**ventral p.** An outgrowth at the angle of the hepatic diverticulum and the embryonic gut that migrates and fuses with the dorsal pancreas. It forms the head of the definitive organ.

**pancreat-, pancreato-** Combining forms meaning *pancreas*.

**pancreatalgia** (păn'krē-ă-tăl'jē-ă) [" +

*kreas*, flesh, + *algos*, pain] Pain in the pancreas.

**pancreatectomy** (păn'krē-ă-tēk'tō-mē)

[" + " + *ektome*, excision] An operation for removal of part or all of the pancreas. Total pancreatectomy produces diabetes mellitus due to the removal of insulin-producing cells. Exogenous insulin must be administered. After a subtotal (or partial) pancreatectomy, diabetes may develop some time later because the remaining islets may be unable to take care of the increased demands placed on them. SEE: *diabetes*.

**pancreatic** (păn'krē-ăt'ik) [Gr. *pan*, all, + *kreas*, flesh] Concerning the pancreas.

**pancreatic cholera** Watery diarrhea, hypokalemia, hypochlorhydria syndrome.

**pancreatic function tests** Any of several



noninvasive tests used to assess the health of the exocrine pancreas, typically by assessing the levels of certain enzymes or digestive products in blood, feces, or urine. Some examples are the amino acid consumption test, the NBT-PABA test, and the pancreatolauryl test. None of these tests perfectly reflects pancreatic function.

**pancreatic juice** A clear, viscid, alkaline fluid (pH 8.4 to 8.9); its secretion is stimulated by two hormones, secretin and cholecystokinin, produced by the duodenal mucosa. Pancreatic juice flows through the main pancreatic duct to the common bile duct to the duodenum, its site of action; 500 to 1200 ml is secreted every 24 hr. It contains sodium bicarbonate and the enzymes trypsinogen, chymotrypsinogen, amylase, and lipase. Sodium bicarbonate neutralizes the acidity of the chyme entering the duodenum from the stomach and prevents irritation of the duodenal mucosa. Trypsinogen is converted to active trypsin by intestinal enteropeptidase (enterokinase), and trypsin in turn converts chymotrypsinogen to active chymotrypsin. Both trypsin and chymotrypsin continue protein digestion, forming peptides. Amylase hydrolyzes starch to maltose, and lipase digests emulsified fats to fatty acids and glycerol. SEE: *enzyme; pancreas; secretion*.

**pancreaticocholecystostomy** (pän'krē-ät'ī-kō-kō'lē-sis-tōs'tō-mē) [Gr. *pan*, all, + *kreas*, flesh, + *chole*, bile, + *kystis*, bladder, + *stoma*, mouth] The surgical creation of a passage between the gallbladder and pancreas.

**pancreaticoduodenal** (pän'krē-ät'ī-kō-dū-ō-dē-näl) [" + " + L. *duodeni*, twelve] Concerning the duodenum and pancreas.

**pancreaticoduodenostomy** (pän'krē-ät'ī-kō-dū-ō-dē-nōs'tō-mē) [" + " + " + Gr. *stoma*, mouth] Surgical creation of an artificial passage between the pancreatic duct or the divided end of the transected pancreas with the duodenum.

**pancreaticenterostomy** (pän'krē-ät'ī-kō-ēn'tēr-ōs'tō-mē) [" + " + *enteron*, intestine, + *stoma*, mouth] Surgical creation of a passage between the pancreatic duct or the transected end of the pancreas and intestine.

**pancreaticogastrostomy** (pän'krē-ät'ī-kō-gäs-trōs'tō-mē) [" + " + *gaster*, belly, + *stoma*, mouth] Surgical creation of a passage between the transected end of the pancreas and the stomach. Pancreaticocystogastrostomy is the anastomosis of pancreatic pseudocyst and the stomach.

**pancreaticojejunostomy** (pän'krē-ät'ī-kō-jē'jū-nōs'tō-mē) [" + " + L. *jejunum*, empty, + Gr. *stoma*, mouth]

Surgical creation of a passage between the pancreatic duct or the transected end of the pancreas and jejunum.

**pancreatin** (pän'krē-ä-tin) [Gr. *pan*, all, + *kreas*, flesh] 1. One of the enzymes of the pancreas. 2. A mixture of enzymes, chiefly amylase, lipase, and protease.

**ACTION/USES:** It is used chiefly in patients with chronic pancreatitis, who do not secrete adequate amounts of their own pancreatic enzymes.

**pancreatitis** (pän'krē-ä-ti'tis) [" + " + *itis*, inflammation] Inflammation of the pancreas, sometimes accompanied by damage to neighboring organs such as the bowel, lungs, spleen, or stomach, or by a systemic inflammatory response. SEE: *acute p.; chronic p.; Nursing Diagnoses Appendix*.

**acute p.** Pancreatitis of sudden onset, marked clinically by epigastric pain, nausea, vomiting, and elevated serum pancreatic enzymes. Varying degrees of pancreatic inflammation, autodigestion, necrosis, hemorrhage, gangrene, or pseudocyst formation may develop. The disease may be relatively mild, resolving in 3 or 4 days, or severe enough to cause multiple organ system failure, shock, and death (in about 5% of patients). The patient may assume a sitting or fetal position in attempting to ease the pain, as lying supine or walking tends to increase discomfort.

**ETIOLOGY:** Alcohol abuse and obstruction of the pancreatic duct by gallstones are the most common causes of the disease; less often, pancreatitis results from exposure to drugs (e.g., thiazide diuretics, pentamidine, and many others), hypertriglyceridemia, hypercalcemia, abdominal trauma, or viral infections (e.g., mumps or coxsackievirus).

**TREATMENT:** The patient receives nothing by mouth until pain, nausea, and vomiting have resolved and diagnostic markers (e.g., serum lipase level) show evidence of normalizing. Standard supportive measures include the administration of fluids and electrolytes, sometimes in massive quantities if dehydration or third-spacing of fluids in the abdomen occurs.



Refeeding patients before pancreatic inflammation has resolved may cause a relapse.

**PROGNOSIS:** Several techniques are used to determine how well (or how poorly) patients with pancreatitis will progress during their illness and whether they may benefit from intensive care. The best of these is the APACHE II system; it grades patients with pancreatitis on the basis of 14 mea-

surable physiological parameters, including the patient's body temperature, heart rate, mean arterial pressure, respiratory rate, serum creatinine and sodium levels, arterial pH, white blood cell count, Glasgow coma scale, and age (among other factors).

Other methods for determining the severity of illness in pancreatitis rely on abnormalities seen on CT imaging or the measurement of other physiological criteria, including the serum calcium and glucose levels, fluid deficit, and liver function.

**PATIENT CARE:** Intravenous fluids, antiemetics, and pain relievers are administered parenterally. A nasogastric tube may be inserted and placed on low, intermittent suctioning for patients with intractable nausea and vomiting or to reduce hydrochloric acid levels or relieve distention. Required nutritional support is best provided using jejunal enteral feedings that maintain gut integrity. These are as effective as parenteral feeding and have the benefit of reducing the potential for infection and hypoglycemia. Total parenteral nutrition may be needed for patients with evidence of severe pancreatitis. Such patients may be critically ill. They will require close monitoring of vital signs, oxygenation and ventilation, body temperature, cardiac and hemodynamic status, fluid and electrolytes, balance, body weight, serum calcium levels, renal function, level of consciousness, peripheral circulation, possible delirium, and possible multiorgan system failure. Severe pancreatitis often results in a prolonged and complicated hospitalization. Throughout the illness, range-of-motion exercises, correct positioning, prophylaxis against deep venous thrombosis, oral hygiene, and other physical support measures prevent debilitation and complications of prolonged illness. Both patient and family may need support, especially in the presence of complications (pulmonary, cardiovascular, renal, immune, and coagulation abnormalities). After pancreatitis has resolved, alcoholic patients should be encouraged to seek help from Alcoholics Anonymous or other supportive programs. Follow-up with a gastroenterologist, primary care provider, or nutritionist may be helpful during convalescence and recovery. Patients should return for prompt re-evaluation if they have nausea, vomiting, epigastric pain, fevers, or jaundice after discharge.

**centrilobar p.** Pancreatitis located around divisions of the pancreatic duct.

**chronic p.** A form of pancreatitis that results from repeated or massive pancreatic injury, marked by the formation

of scar tissue, which leads to malfunction of the pancreas. The disease may be diagnosed with endoscopic procedures, with radiographic studies (e.g., x-rays of the abdomen showing pancreatic calcification), or with so-called tubeless tests that assess malabsorption caused by failure of the pancreas to release digestive enzymes into the gastrointestinal tract.

**SYMPTOMS:** The pain may be mild or severe, tending to radiate to the back. Jaundice, weakness, emaciation, malabsorption of proteins and fats, and diarrhea are present.

**gallstone p.** Inflammation of the pancreas, caused by the obstruction of the ampulla of Vater by a biliary stone.

**interstitial p.** Pancreatitis with overgrowth of interacinar and intra-acinar connective tissue.

**perilobar p.** Fibrosis of the pancreas between acinus groups.

**purulent p.** Pancreatitis with abscess formation. SYN: *suppurative pancreatitis*.

**suppurative p.** Purulent pancreatitis.

**pancreatoduodenectomy** (păn'krē-ă-tō-dū'ō-dē-nĕk'tō-mĕ) [*Gr. pan*, all, + *kreas*, flesh, + *L. duodeni*, twelve, + *Gr. ektome*, excision] Excision of the head of the pancreas and the adjacent portion of the duodenum.

**pancreatoduodenostomy** (păn'krē-ă-tō-dū'ō-dē-nōs'tō-mĕ) [" + " + " + *stoma*, mouth] Surgical anastomosis of the pancreatic duct, or a pancreatic fistula, to the duodenum.

**pancreatogenic, pancreatogenous** (păn'krē-ă-tō-jĕn'ĭk, -tōj'ĕ-nūs) [" + " + *gennan*, to produce] Produced in or by the pancreas; originating in the pancreas.

**pancreatography** (păn'krē-ă-tōg'ră-fĕ) [" + " + *graphein*, to write] Endoscopic and radiological examination of the pancreas after injection of a radioopaque contrast medium through the duct of Wirsung.

**pancreatolauryl test** (păng'krē-ăt'ō-lōr'ĭl) A noninvasive test for chronic pancreatitis in which fluorescein dilaurate is administered orally with a meal. Patients with chronic pancreatitis secrete diminished amounts of digestive enzymes into the gastrointestinal tract. As a result they do not digest foods properly and suffer from malabsorption. In this test diminished release of exocrine enzymes by the pancreas results in diminished enzymatic liberation of fluorescein, a decreased uptake of this dye by the liver, and its diminished excretion in the urine. The test has fair (not good) sensitivity and specificity for disease diagnosis and is infrequently used.

**pancreatolithiasis** (păn'krē-ă-tō-lĭ-thĭ-ă-

- sis) [" + " + " + *-iasis*, condition] Stones in the duct system of the pancreas.
- pancreatolithotomy** (pǎn'krē-ăt-ō-lī-thôt'ō-mē) [" + " + " + *tome*, incision] Incision of the pancreas for removal of a stone.
- pancreatolysis** (pǎn'krē-ă-tōl'ī-sīs) [" + " + *lysis*, dissolution] Destruction of the pancreas by pancreatic enzymes.
- pancreatolytic** (pǎn'krē-ăt-ō-lī'tīk) Destructive to pancreatic tissues.
- pancreatotomy** (pǎn-krē-ăt'ō-mē) [" + " + *tome*, incision] Pancreatotomy.
- pancreatopathy** (pǎn'krē-ă-tōp'ă-thē) [" + " + *pathos*, disease, suffering] Any pathologic state of the pancreas. SYN: *pancreopathy*.
- pancreatotomy** (pǎn'krē-ă-tōt'ō-mē) [" + " + *tome*, incision] Surgical incision into the pancreas. SYN: *pancreatotomy*.
- pancrelipase** (pǎn'krē-lī'pās) A standardized preparation of enzymes, principally lipase, with amylase and protease, obtained from the pancreas of the hog. It is used in treating conditions associated with deficient secretion from the pancreas.
- pancreolysis** (pǎn'krē-ōl'ī-sīs) [" + " + *lysis*, dissolution] Enzymatic destruction of the pancreas.
- pancreopathy** (pǎn'krē-ōp'ă-thē) [" + " + *pathos*, disease, suffering] Pancreatopathy.
- pancreoprivic** (pǎn'krē-ō-priv'īk) Having no pancreas.
- pancytopenia** (pǎn'sī-tō-pē-nē-ă) [" + *kytos*, cell, + *penia*, poverty] A reduction in all cellular elements of the blood. It is sometimes present in patients with bone marrow failure, cirrhosis and portal hypertension, or leukemia.
- pandemic** (pǎn-dēm'īk) 1. An exceptionally widespread epidemic, that is, a disease or outbreak that affects very high proportions of the population, or populations throughout the world. 2. Extraordinarily widespread, said, for example, of diseases with global impact, such as AIDS, the bubonic plague (in the Middle Ages), or malaria.
- pandiculari** (pǎn'dīk-ū-lā'shūn) [L. *pandiculari*, to stretch one's self] Stretching of the limbs and yawning, as on awakening from normal sleep.
- panel** 1. A number of patients or normal subjects who participate in medical investigations, esp. studies in which new drugs, devices, or procedures are tested. 2. A group of patients who obtain their primary medical care from a single health care provider.
- panel reactive antibody** ABBR: PRA. A measure of an organ transplant recipient's level of sensitization to antigens on donated organs. It is the percentage of cells taken from a broad selection of blood donors against whose antigens the organ recipient's serum reacts. The higher the panel reactive antibody, the more challenging it is to match a donor organ to the recipient.
- panencephalitis** (pǎn'ēn-sēf'ă-lī'tīs) [Gr. *pan*, all, + *enkephalos*, brain, + *itis*, inflammation] A diffuse inflammation of the brain.
- subacute sclerosing p.** ABBR: SSPE. A disease of childhood and adolescence marked by gradual and progressive intellectual and behavioral deterioration followed by seizures, muscle jerking, gait disturbances, and eventually coma. The illness is a late complication of measles infection (usually developing about 5 years after the child had measles). It has been almost completely eradicated in the U.S. as a result of universal measles vaccination. SYN: *Dawson disease*.
- panendoscope** (pǎn-ēn'dō-skōp) [" + *endon*, within, + *skopein*, to view] A cystoscope that gives a wide view of the bladder.
- Paneth cells** (pah'nēt) [Josef Paneth, Ger. physician, 1857–1890] Large secretory cells containing coarse granules, found at the blind end of the crypts of Lieberkühn (the intestinal glands). They secrete lysozyme.
- pang** 1. A paroxysm of extreme agony. 2. A sudden attack of any emotion.
- panhypopituitarism** (pǎn-hī'pō-pī-tū'ī-tār-īzm) [" + *hypo*, under, + *L. pituita*, mucus, + Gr. *-ismos*, condition] Defective or absent function of the entire pituitary gland. SEE: *Simmonds' disease*.
- panhysterectomy** (pǎn'hīs-tēr-ēk'tō-mē) [" + *hystera*, womb, + *ektome*, excision] Excision of the entire uterus including the ovaries, oviducts, and uterine cervix. SEE: *hysterectomy*.
- panhysterocolpectomy** (pǎn-hīs'tēr-ō-kōl-pēk'tō-mē) [" + " + *kolpos*, vagina, + *ektome*, excision] Total excision of the uterus and vagina.
- panhystero-oophorectomy** (pǎn-hīs'tēr-ō-ōf-ō-rēk'tō-mē) [" + " + *oophoros*, bearing eggs, + *ektome*, excision] Excision of the uterus, cervix, and one or both ovaries.
- panhysterosalpingectomy** (pǎn-hīs'tēr-ō-sāl'pīn-jēk'tō-mē) [" + " + *salpinx*, tube, + *ektome*, excision] Surgical removal of the uterus, cervix, and fallopian tubes.
- panhysterosalpingo-oophorectomy** (pǎn-hīs'tēr-ō-sāl'pīng-gō-ō-ōf-ō-rēk'tō-mē) [" + " + " + *oophoros*, bearing eggs, + *ektome*, excision] Excision of the entire uterus, including the cervix, ovaries, and uterine tubes.
- panic** (pǎn'īk) Acute anxiety, terror, or fright that is usually of sudden onset and may be uncontrollable. SEE: *panic attack*.

**p. attack** A discrete period of intense fear or discomfort that is accompanied by at least four of the following symptoms: palpitations, sweating, trembling or shaking, sensations of shortness of breath or smothering, feeling of choking, chest pain or discomfort, nausea or abdominal distress, dizziness or light-headedness, feeling of unreality or being detached from oneself, feeling of losing control or going crazy, fear of dying, paresthesias (numbness or tingling sensations), and chills or hot flushes. The onset is sudden and builds to a peak usually in 10 min or less. It may include a sense of imminent danger or impending doom and an urge to escape.

**PATIENT CARE:** Precautions are taken to ensure the patient's safety. A calm, quiet, and reassuring environment helps the patient to overcome feelings of anxiety. Speaking slowly in short, simple sentences, giving one direction at a time, and avoiding lengthy explanations help the patient feel less overwhelmed. If the patient is hyperventilating, the caregiver demonstrates slow, deep breathing. Touch may not be reassuring to the patient and should be avoided until trust is established. Once the attack has subsided, the patient is encouraged to discuss fears and helped to identify situations or events that act as triggers for an attack. Relaxation techniques may be taught, with explanations given regarding using them to relieve stress or avoid an attack. The patient may be referred for behavioral therapy, supportive psychotherapy, or pharmacologic therapy (antianxiety agents, antidepressants, beta-blockers), separately or in combination.

**p. disorder** An anxiety disorder characterized by panic attacks (e.g., agoraphobia with panic attacks).

**homosexual p.** 1. In Freudian psychiatry, fear, anxiety, aggression, or psychosis that originates in conflicts that arise from an attraction to members of one's own gender. 2. An irrational fear of contracting illnesses from casual contact with people who have sex with members of their own gender.

**panlobular** (pän'löb'ü-lär) [" + "] Involving or pertaining to all the lobes of an organ.

**panmyeloid** (pän-mī'ë-loyd) [Gr. *pan*, all, + *myelos*, marrow, + *eidos*, form, shape] Concerning all of the elements of the bone marrow.

**Panner disease** (pän'ër) Osteochondrosis of the capitellum, sometimes associated with avascular necrosis.

**panneuritis** (pän'ü-rī'tis) [" + *neuron*, sinew, + *itis*, inflammation] Generalized neuritis.

**p. epidemica** Beriberi.

**panniclectomy** (pä-nik'ü-lëk'tä-më)

The excision of an apron of abdominal subcutaneous fat that lacks adequate supportive tissue from people who are morbidly obese. Cosmesis can be achieved by panniculectomy and concomitant abdominoplasty.

**panniculitis** (pän-ik'ü-lī'tis) [L. *panniculus*, a small piece of cloth, + *itis*, inflammation] Inflammation of subcutaneous fatty tissue. The most common form of the disease is erythema nodosum.

**nodular nonsuppurative p.** Weber-Christian disease.

**panniculus** (pän-ik'ü-lüs) [L., a small piece of cloth] Any clothlike sheet or layer of tissue.

**p. adiposus** The subcutaneous layer of fat; the fat cells in the superficial fascia.

**p. carnosus** The thin layer of muscle tissue in the superficial fascia of mammals. SEE: *platysma myoides*.

**pannus** (pän'nūs) [L., cloth] 1. Superficial vascular inflammation of the cornea. The area is cloudy, and its surface is uneven because it is infiltrated with a film of new capillary blood vessels. This condition may be seen in trachoma, acne rosacea, eczema, and as a result of irritation in granular conjunctivitis. SEE: *micropannus*. 2. Inflamed synovial granulation tissue seen in chronic rheumatoid arthritis.

**corneal p.** An overgrowth of vascular tissue in the periphery of the cornea, occurring in response to inflammation of the cornea, esp. in trachoma.

**p. crassus** Pannus that is highly vascularized, thick, and opaque.

**phlyctenular p.** Pannus that occurs in conjunction with phlyctenular conjunctivitis.

**p. siccus** Pannus accompanying xerophthalmia. It is composed principally of connective tissue that is dry and poorly vascularized.

**p. tenuis** Pannus that is thin, poorly vascularized, and slightly opaque.

**panodic** (pä-nöd'ik) Radiating in all directions, esp. said of a nerve impulse.

**panograph** (pän'ä-gräf") An image made during panography.

**panophthalmia, panophthalmitis** (pän-öf-thäl'më-ä, -thäl-mī'tis) [" + *ophthalmos*, eye, + *itis*, inflammation] Inflammation of the entire eye.

**panoptic** (pän-öp'tik) [" + *optikos*, vision] Making every part visible.

**panoramic rotational center** (pän-ö-räm'ik) The axis on which the tube head and cassette of a panoramic x-ray machine rotate.

**panplegia** (pän-plë'jë-ä) [" + *plege*, stroke] Total paralysis.

**pansclerosis** (pän'sklë-rö'sis) [" + *sklerosis*, hardening] Hardening of an entire organ.

**pansinusitis** (pǎn"sī-nūs-ī'tis) [ʼ + L. *sinus*, curve, hollow, + *itis*, inflammation] Inflammation of all of the paranasal sinuses.

**Panstrongylus** (pǎn-strŏn'jī-lūs) A genus of insects belonging to the order Hemiptera, family Reduviidae. This genus is a vector for *Trypanosoma cruzi*, the causative agent of Chagas' disease (American trypanosomiasis), a parasitic illness that causes heart failure and neural dysfunction.

**pansystolic** (pǎn-sīs-tŏl'ik) Throughout systole; used to describe the murmur of mitral regurgitation. SYN: *holosystolic*.

**pant** (pǎnt) [ME. *panten*] **1.** To gasp for breath. **2.** A short and shallow breath. Panting is produced by physical overexertion, as in running, or from fear.

**pant-, panto-** [Gr. *pantos*, all] Combining form indicating *all, whole*.

**pantanencephaly** (pǎn"tǎn-ĕn-sĕf'ă-lĕ) [ʼ + *an-*, not, + *enkephalos*, brain] Complete absence of the brain in the fetus.

**pantetheine** (pǎn-tĕ-thĕ'in) The naturally occurring amide of pantothenic acid. It is a growth factor for *Lactobacillus bulgaricus*.

**panting** (pǎnt'ing) [ME. *panten*] Short, shallow, rapid respirations. SYN: *polypnea*.

**pantograph** (pǎn'tŏ-grǎf) [Gr. *pantos*, all, + *graphein*, to write] A device that will reproduce, through a system of levers connected to a stylus, a duplicate of whatever figure or drawing is being copied by the device.

**pantomography** (pǎn'tŏ-mŏg'rǎ-fĕ) Panoramic radiograph.

**pantomorphia** (pǎn'tŏ-mŏr'fĕ-ă) [ʼ + *morphe*, form] **1.** The state of being symmetrical. **2.** Able to assume any shape.

**Pantopaque** (pǎn-tŏ'pǎk) An oil-based, iodine-containing contrast medium used to outline body structures during radiographic or fluoroscopic examinations, such as myelograms.

**pantothenate** (pǎn-tŏ'thĕn-ăt) A salt of pantothenic acid.

**pantothenic acid** (pǎn-tŏ'thĕn'ik) C<sub>9</sub>H<sub>17</sub>NO<sub>5</sub>; a vitamin of the B-complex group widely distributed in nature, occurring naturally in yeast, liver, heart, salmon, eggs, and various grains. It was synthesized in 1940. It is part of coenzyme A, which is necessary for the Krebs cycle and for conversion of amino acids and lipids to carbohydrates.

**Pan troglodytes troglodytes** A subspecies of chimpanzee believed to be the primary host of human immunodeficiency virus (HIV) before the illness became epidemic in humans.

**panuveitis** (pǎn-ū'vīt'is) Inflammation that affects all the structures of the eye. SYN: *diffuse uveitis*.

**panzootic** (pǎn"zŏ-ŏt'ik) [ʼ + *zoon*, animal] Any animal disease that is widespread.

**Pao** The pressure of gases at the opening of the patient's airway

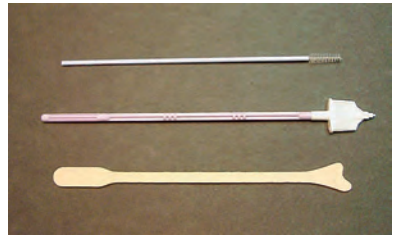
**Pao<sub>2</sub>** The partial pressure of oxygen in arterial blood; arterial oxygen concentration, or tension; usually expressed in millimeters of mercury (mm Hg).

**pap** (pǎp) [L. *pappa*, infant's sound for food] Any soft, semiliquid food.

**papain** (pǎ-pā'in) Proteolytic enzyme obtained from the fruit of the papaya, *Carica papaya*; used to tenderize meat.

**Papanicolaou test, Pap test** (pǎp"-ă-nĕ'kă-low") [George Nicholas Papanicolaou, Gr.-born U.S. scientist, 1883–1962] ABBR: Pap test. A cytological study used to detect cancer in cells that an organ has shed. The Pap test has been used most often in the diagnosis and prevention of cervical cancers, but it also is valuable in the detection of pleural or peritoneal malignancies and in the evaluation of cellular changes caused by radiation, infection, or atrophy. SYN: *Pap smear*.

Cellular material is collected and smeared on a glass slide. DNA hybrid testing for HPV can be done on the liquid-based specimen. When suspicious cells are identified, further testing may be performed on the same sample. Testing for human papilloma virus (HPV) is often performed if results show abnormal changes of uncertain significance. HPV is the primary risk factor for cervical cancer. Currently the two available technologies are Thin Prep Pap Test and Sure Path. SEE: *illus.*




**TOOLS FOR PAP TEST**

(top to bottom) Cytobrush, cervical cytobroom, and wooden paddle

Since the introduction of the Pap test, death from cervical cancer in the US has declined by 70%. Although interpretation of the test is subject to human error, a variety of developments have improved test accuracy, including use of computer-generated procedures for detection and examination of abnormal cells and mandated reexamination of sample batches to test quality control. A woman may augment the accuracy and



value of the Pap test by following these guidelines: Asking her health care provider about the quality of the laboratory evaluating the results; having an annual Pap test beginning by age 21 or when the woman becomes sexually active; scheduling the test during a time when she does not expect to be bleeding; abstaining from sexual intercourse and putting nothing in her vagina; providing a detailed medical history, including use of birth control pills or other exogenous hormones and results of past Pap tests; and requesting a second opinion on the Pap test if she is at risk for cancer of the reproductive tract.

 As with any test, it is possible that human errors may influence results. It is important that the quality of performance of the technicians and physicians be periodically reviewed by persons not employed by the laboratory or hospital.

**SCREENING RECOMMENDATIONS:** The American Cancer Society (ACS) and the American College of Obstetricians and Gynecologists (ACOG) both recommend that screening for cervical cancer begin about 3 years after a woman begins having vaginal intercourse, but no later than age 21. Annual Pap testing should continue until age 30. After age 30, the ACS says women can reduce test frequency to every 2 to 3 years if their health care provider uses the newer liquid-based Pap tests, which include human papillomavirus (HPV) typing. In young, sexually active women, certain types of HPV cause precancerous changes that can lead to cervical cancer. Women who have had a hysterectomy for benign conditions and who do not have a cervix no longer need to undergo screening.

Screening can stop at age 65 or 70 for those women who have never had positive findings on previous examinations, as long as they have no new risk factors for cervical cancer.

Certain women are at high risk for cervical cancer and may need more frequent testing than the general population. These include women with HPV, chlamydial, or HIV infection and those who are immunosuppressed as a result of other illnesses. Additional risk factors for cervical cancer include early age at first intercourse, a history of sexually transmitted illnesses, cigarette smoking or substance abuse, a previous history of cervical dysplasia, a history of multiple sexual partners, or having a sexual partner who has other partners with cervical cancer.

**PATIENT CARE:** Because Pap testing

has been effective in detecting the early stages of cervical cancer, health care professionals should advocate this procedure for their female patients and participate in health promotion efforts to increase the number of women who have the test done regularly.

**papaya** (pā-pā'yā) [Sp. Amerind.]

**1.** *Carica papaya*, a large herb of the family Caricaceae, native to the American tropics and cultivated for its edible fruit and latex-bearing leaves and stem, which contain digestive enzymes. **2.** Large, oblong, edible fruit of the *Carica papaya* plant; the source of the digestive enzyme papain.

**paper** (pā-pēr) [L. *papyrus*, paper]

**1.** Cellulose pulp prepared in thin sheets from fibers of wood, rags, and other substances. **2.** Charta. **3.** A thin sheet of cellulosic material impregnated with specific chemicals that react in a definite manner when exposed to certain solutions. This permits use of these papers for testing purposes.

**articulating p.** Paper coated on one or both sides with a pigment that marks the teeth when their occlusal surfaces contact the paper. This allows the contact points of the teeth to be demonstrated.

**bibulous p.** Paper that absorbs water readily.

**filter p.** A porous, unglazed paper used for filtration.

**indicator p.** Paper saturated with a solution of known strength and then dried; used for testing the pH (or other properties) of a solution.

**litmus p.** SEE: *litmus paper*.

**test p.** Paper impregnated with a substance that will change color when exposed to solutions of a certain pH or to specific chemicals.

**papilla** (pā-pil'ā) *pl.* **papillae** [L.] A small, nipple-like protuberance or elevation.

**Bergmeister's p.** SEE: *Bergmeister's papilla*.

**circumvallate p.** One of the large papillae near the base on the dorsal aspect of the tongue, arranged in a V-shape. The taste buds are located in the epithelium of the trench surrounding the papilla. SYN: *vallate papilla*.

**conical p.** **1.** Papillae on the dorsum of the tongue. **2.** Papillae in the ridge-like projections of the dermis. SYN: *papilla of corium*.

**p. of corium** Conical p. (2).

**dental p.** A mass of connective tissue that becomes enclosed by the developing enamel organ. It gives rise to dentin and dental pulp.

**dermal p.** Small elevations of the corium that indent the inner surface of the epidermis.

**duodenal p.** Papilla of Vater.

**filiform p.** One of the very slender papillae at the tip of the tongue.

**foliate p.** Folds, which are rudimentary papillae, in the sides of the tongue.

**fungiform p.** One of the broad flat papillae resembling a mushroom, chiefly found on the dorsal central area of the tongue.

**gingival p.** The gingiva that fills the space between adjacent teeth.

**gustatory p.** Taste papilla of tongue; one of those possessing a taste bud. SYN: *taste papilla*.

**p. of hair** A conical process of the corium that projects into the undersurface of a hair bulb. It contains capillaries that nourish the hair root. SYN: *papilla pili*.

**incisive p.** A small bump in the mucosa above and just to the front of the incisive foramen at the very front of the hard palate. The papilla is used as an injection site when anesthetizing the nasopalatine nerve.

**interdental p.** The triangular part of the gingivae that fills the area between adjacent teeth. The papilla includes free gingiva and attached gingiva and projections seen from the lingual, buccal, or labial sides of the tooth. SYN: *interproximal papilla*.

**interproximal p.** Interdental p.

**lingual p.** Any one of the tiny eminences covering the anterior two thirds of the tongue, including circumvallate, filiform, fungiform, and conical papillae.

**optic p.** Blind spot (1).

**parotid p.** The projections around the opening of the parotid duct into the oral cavity.

**p. pili** Papilla of hair.

**renal p.** The apex of a renal pyramid in the kidney, enclosed by a calyx of the renal pelvis.

**tactile p.** A dermal papilla that contains a sensory receptor for touch.

**taste p.** Gustatory p.

**urethral p.** The small projection in the vestibule of the female perineum at the entrance of the urethra.

**vallate p.** Circumvallate papilla.

**p. of Vater** The duodenal end of the drainage systems of the pancreatic and common bile ducts; commonly, but inaccurately, called the ampulla of Vater. SYN: *duodenal papilla*; *hepatopancreatic ampulla*.

**papillary** (păp'î-lăr-ē) [L. *papilla*, nipple]

**1.** Concerning a nipple or papilla. **2.** Resembling or composed of papillae.

**p. cystadenoma lymphomatosum** Warthin's tumor.

**p. layer** The layer of the corium that adjoins the epidermis. SYN: *stratum papillare*.

**papillary carcinoma of the thyroid** A well-differentiated thyroid cancer, and the most common form of thyroid cancer

in the U.S. Most thyroid cancers of this type grow slowly and respond well to treatment. They are usually identified as a thyroid nodule and are best diagnosed with fine needle aspiration biopsy. Treatment includes surgical removal of the thyroid gland, followed by radioactive iodine treatment to destroy any residual tissue or metastasis. Survival ten years after diagnosis and treatment exceeds 90%.

**papillate** (păp'î-lăt) [L. *papilla*, nipple] Having nipple-like growths on the surface, as a culture in bacteriology.

**papillectomy** (păp'î-lĕk'tō-mē) [ʹ + Gr. *ektome*, excision] Excision of any papilla or papillae.

**papilledema** (păp'î-l-ē-dē'mă) [ʹ + Gr. *oidema*, swelling] Swelling of the optic nerve with dilated veins, blurred optic disc margins, flame-shaped hemorrhages in the nerve fiber layer adjacent to the disc, and an enlarged blind spot on the visual field. It is caused by increased intracranial pressure, often due to a tumor of the brain pressing on the optic nerve. Blindness may result very rapidly unless relieved. SYN: *choked disk*.

**papilliform** (pă-pil'î-form) [ʹ + *forma*, shape] Having the characteristics or appearance of papillae.

**papillitis** (păp'î-l'î-tis) [ʹ + Gr. *itis*, inflammation] Optic disc swelling caused by local inflammation; usually acute.

**papilloadenocystoma** (păp'î-l-ō-ăd'ē-nō-sis-tō'mă) [ʹ + Gr. *aden*, gland, + *kystis*, a cyst, + *oma*, tumor] A tumor composed of elements of papilloma, adenoma, and cystoma.

**papilocarcinoma** (păp'î-l-ō-kăr-sî-nō'mă) [ʹ + Gr. *karkinos*, crab, + *oma*, tumor] **1.** A malignant tumor of hypertrophied papillae. **2.** Carcinoma with papillary growths.

**papilloma** (păp'î-lō'mă) [ʹ + Gr. *oma*, tumor] **1.** A benign epithelial tumor. **2.** Epithelial tumor of skin or mucous membrane consisting of hypertrophied papillae covered by a layer of epithelium. Included in this group are warts, condylomas, and polyps. SEE: *acanthoma*; *papillomavirus*.

**p. durum** A hardened papilloma, as a wart or corn.

**fibroepithelial p.** A skin tag containing fibrous tissue.

**hard p.** Papilloma that develops from squamous epithelium.

**Hopmann's p.** [Carl Melchior Hopmann, Ger. physician, 1849–1925] Papillomatous overgrowth of the nasal mucosa.

**intracystic p.** Papilloma within a cystic adenoma.

**intraductal p.** A solitary neoplasm of the breast that occurs in the large, lactiferous ducts. A distinct neoplasm that

displays a papillary histological pattern.

**p. molle** Condyloma.

**soft p.** Papilloma formed from columnar epithelium; applies to any small, soft growth.

**villous p.** Papilloma with thin, long excrescences present in the urinary bladder, breast, intestinal tract, or choroid plexus of the cerebral ventricles.

**papillomatosis** (păp'î-lō-mă-tō'sis) [ʹ + Gr. *oma*, tumor, + *osis*, condition]

1. Widespread formation of papillomas.  
2. The condition of being afflicted with many papillomas.

**papillomavirus** Any of a group of viruses that cause papillomas or warts in humans and animals. They belong to the papovavirus family or group. SEE: *wart, genital*.

**human p.** (păp-î-lō'mă-v'rūs ABBR: HPV) A papillomavirus that is specific to humans and is a common viral sexually transmitted disease in the U.S. A number of HPV types, esp. HPV 16, 18, 31, and 45, have been shown to contribute to squamous cell cancers of the anogenital region, including cancers of the anus, cervix, penis, and vulva. Others (types 6 and 11) are responsible for genital warts. Cervical cancer kills nearly 4,000 women in the U.S. annually.

A vaccine (brand name Gardasil) has proven 100% effective in preventing the two strains of HPV responsible for 70% of cervical cancer and two responsible for most genital warts. In June 2006, the FDA approved the vaccine, and the CDC includes the HPV vaccine in its recommended vaccination schedule for girls age 11 or 12.

The vaccine costs approximately \$360.00, for girls and women age 9 to 26. The organization "Vaccines of Children" may cover the expense for some girls if a health care company refuses coverage.

**TREATMENT:** Imiquimod is used to treat warts of the genitals or anus. An alternative drug treatment is podophylum. Cervical HPV lesions may be removed by loop electrosurgical excision procedure. Cryotherapy and laser surgery also may be used in treatment.

**papillophlebitis** (păp'î-lō-flē-bî'tis, pă-pîl'ō) [ʹ + ʹ] Nonischemic central retinal vein occlusion, typically but not exclusively occurring in an otherwise young or healthy patient.

**papilloretinitis** (păp'î-lō-rēt-în-î'tis) [ʹ + *rete*, net, + Gr. *itis*, inflammation] Inflammation of the optic nerve and retina. SYN: *retinopapillitis*.

**papovavirus** (păp'ō-vă-vî'rūs) [*papilloma*, + *polyoma*, + *vacuolating agent* + *virus*] Any of a group of viruses important in investigating viral carcinogenesis; including polyoma virus, simian virus 40 (SV 40), and papillomaviruses.

**pappataci fever** (păp-ă-tă-chē) Sandfly fever.

**pappose** (păp'pōs) [L. *pappus*, down] Covered with fine, downy hair.

**pappus** (păp'pūs) [L.] The first growth of beard hair appearing on the cheeks and chin as fine, downy hair.

**Pap smear, Pap test** (păp) Papanicolaou test.

**papular mucinosis** (păp'yă-lēr mū-sî-nō'sis) A rare rash of unknown cause, in which mucin deposits are found in the dermis, creating a bumpy (papular) eruption often found on the face or arms. The condition is often associated with lesions of the internal organs and the presence of paraproteins in the bloodstream.

**papule** (păp'ul) [L. *papula*, pimple] A small bump or pimple, typically larger than a grain of salt but smaller than a peppercorn, that rises above the surface of the neighboring skin. Papules may appear in numerous skin diseases, including prickly heat, psoriasis, xanthomatosis, eczema, and skin cancers. Their color may range from pale, to yellow, red, brown, or black. SEE: *illus.*  
**papular** (ū-lăr), *adj.*



PAPULES

**dry p.** Chancre.

**moist p.** Condyloma latum.

**pearly penile p.** An asymptomatic white papule with a pink, white, or pearly surface on the dorsum of the penis of blacks and uncircumcised men. No treatment is indicated, just reassurance.

**piezogenic pedal p.** A soft, painful, skin-colored papule present on the non-weight-bearing portion of the heel. It disappears when weight is taken off the foot and heel. This papule is caused by herniation of fat through connective tissue defects.

**split p.** Fissures at the corners of the mouth; seen in some cases of secondary syphilis.

**papulo-** [L. *papula*, pimple] Combining form indicating *pimple, papule*.

**papuloerythematous** (păp'ū-lō-ēr'ē-thēm'ă-tūs) [ʹ + Gr. *erythema*, redness] Denoting the occurrence of papules on reddened skin.

**papulopustular** (păp"ū-lō-pūs'tū-lăr) [" + *pustula*, blister] Denoting the presence of both pustules and papules.

**papulosis** (păp-ū-lō'sis) [" + Gr. *osis*, condition] The presence of numerous and generalized papules.

**papulosquamous** (păp"ū-lō-skwā'mūs) [" + *squamosus*, scalelike] Denoting the presence of both papules and scales.

**papulovesicular** (păp"ū-lō-vē-sik'ū-lăr) [" + *vesicula*, tiny bladder] Denoting the presence of both papules and vesicles.

**papyraceous** (păp-ī-ră'shūs) [L.] Parchment-like; in obstetrics, denoting a fetus that is retained in the uterus beyond natural term and appears mummified.

**par** [L., equal] A pair, esp. a pair of cranial nerves.

**para** (păr'ă) [L. *parere*, to bring forth, to bear] A woman who has produced a viable infant (weighing at least 500 g or of more than 20 weeks' gestation) regardless of whether the infant is alive at birth. A multiple birth is considered to be a single parous experience. SEE: *gravidā*; *multipara*.

**para-** [Gr. *para*, beyond; L. *par*, equal, pair] Prefix meaning *near*, *beside*, *past*, *beyond*, *opposite*, *abnormal*, *irregular*, *two like parts*.

**-para** Suffix meaning *to bear forth* (offspring).

**para-aminohippuric acid** (păr'ă-ăm"ī-nō-hī-pūr-ik) ABBR: PAHA. A derivative of aminobenzoic acid. The salt, para-aminohippurate, is used to test the excretory capacity of the renal tubules.

**para-aortic body** (păr'ă-ăr'tik) One of the small masses of chromaffin tissue along the abdominal aorta that secrete epinephrine.

**parabiosis** (păr'ă-bī-ō'sis) [" + *biosis*, living] 1. The joining together of two individuals. It may occur congenitally as with conjoined twins or may be produced surgically for experimentation in animals. **parabiotic** (-ōt'ik), *adj.*

**parablepsia**, **parablepsis** (păr'ă-blēp'sē-ă, -sis) [Gr. *para*, beside, + *blepsis*, vision] Abnormality of vision (e.g., visual hallucinations).

**paracanthoma** (păr'ă-kăn-thō'mă) [Gr. *para*, beside, + *akantha*, thorn, + *oma*, tumor] A tumor involving the prickle-cell layer of the epidermis.

**paracasein** (păr-ă-kă'sē-în) An insoluble protein formed when rennin or pepsin acts on the casein in milk; this reaction, which results in the curdling of milk, occurs only in the presence of calcium ions.

**paracellular** (păr'ă-sēl'ū-lir) [" + "] Pertaining to pathways or junctions between or around cells. It is used for ions that pass through an epithelial membrane without entering its cells.

**paracentesis** (păr'ă-sēn-tē'sis) [Gr. *para*, beside, + *kentesis*, a puncture] The puncture of a cavity with removal of fluid, as in pleural effusion or ascites. In common parlance, "paracentesis" refers to aspiration of fluid from within the peritoneum. **paracentetic** (-tēt'ik), *adj.*

**PATIENT CARE:** The procedure is explained to the patient and an informed consent is obtained. The patient is assessed for allergies, including local anesthetics and antiseptic agents, and for bleeding and coagulation abnormalities. The patient should have an intravenous access and should empty his/her bladder before the procedure. Emotional support is offered during the procedure, and the patient is encouraged to express feelings. The patient is positioned as directed by the physician. Vital signs are monitored, especially for changes in respiratory rate, pulse, and blood pressure. The amount of fluid removed is measured and recorded, and its appearance, color, consistency, odor, and specific gravity are noted. The puncture site is observed, a pressure dressing applied, and redressed as necessary. Specimens are sent to laboratories as directed. The procedure and the patient's response are documented, and the patient is monitored for several hours after the procedure, e.g., for bleeding or drainage from the puncture site, or worsening internal pain.

**paracental lobule** SEE: under *lobule*.

**paracephalus** (păr'ă-sēf'ă-lūs) [" + *kephale*, head] A parasitic placental twin with a small rudimentary head.

**paracholera** (păr'ă-kōl'ēr-ă) [" + L. *cholera*, cholera] A disease resembling cholera but caused by vibrones other than true *Vibrio cholerae*.

**Paracoccidioides** (păr'ă-kōk-sīd'ē-oy'dēz) A genus of yeastlike fungi.

**P. brasiliensis** The species that causes South American blastomycosis. SYN: *Blastomyces brasiliensis*.

**paracoccidioidomycosis** (păr'ă-kōk-sīd'ē-oy'dō-mī-kō'sis) A chronic granulomatous disease of the skin caused by *Paracoccidioides brasiliensis*. SYN: *South American blastomycosis*.

**paracolitis** (păr'ă-kō-lī'tis) Inflammation of the tissue surrounding the colon.

**paracolpitis** (păr'ă-kōl-pī'tis) [" + *kolpos*, vagina, + *itis*, inflammation] Inflammation of tissues surrounding the vagina.

**paracone** (păr'ă-kōn) [" + *konos*, cone] The mesiobuccal cusp of an upper molar tooth.

**paraconid** (păr'ă-kō'nid) The mesiobuccal cusp of a lower molar tooth.

**paracrine** (păr'ă-krēn) Secretion of a hormone from a source other than an endocrine gland.

**p. control** A general form of bioregulation in which one cell type in a tissue selectively influences the activity of an adjacent cell type by secreting chemicals that diffuse into the tissue and act specifically on cells in that area. SEE: *factor, autocrine.*

**paracusia, paracusis** (pär"ä-kü'sē-ä, -kü'sis) [" + *akousis*, hearing] Any abnormality or disorder of the sense of hearing.

**p. loci** Difficulty in locating the direction of sound.

**paracystitis** (pär"ä-sis-ti'tis) [" + " + *itis*, inflammation] Inflammation of connective tissues and other structures around the urinary bladder.

**paracytic** (pär"ä-sit'ik) [" + *kytos*, cell] Concerning cells other than those normally present in a specific location.

**paradenitis** (pär"äd-ën-ī'tis) [" + *aden*, gland, + *itis*, inflammation] Inflammation of tissues around a gland.

**paradental** (pär"ä-dēn'täl) [" + *L. dens*, tooth] 1. Concerning the practice of dentistry. 2. Periodontal.

**paradidymis** (pär-ä-did'ī-mis) [" + *didymos*, testicle] The atrophic remnants of the tubules of the wolffian body, situated on the spermatid cord above the epididymis.

**paradigm** (pä'rädīm) 1. An example that serves as a model. 2. Conceptual model.

**paradox** (pä-rädöks) [Gr. *paradoxos*, conflicting with expectation] A condition or statement that on superficial examination seems contradictory or illogical.

**Weber's p.** Paradox that states that a muscle loaded beyond its ability to contract may elongate.

**paraffin** (pär'ä-fīn) [*L. parum*, too little, + *affinis*, neighboring] 1. A waxy, white, tasteless, odorless mixture of solid hydrocarbons obtained from petroleum; used as an ointment base or wound dressing. SEE: *petrolatum*. 2. One of a series of saturated aliphatic hydrocarbons having the formula  $C_nH_{2n+2}$ . Paraffins constitute the methane or paraffin series. 3. A series of solid waxes prepared according to their melting point, to be used to infiltrate and embed tissues for sectioning in the preparation of microscope slides.

**paraformaldehyde** (pär"ä-for-mäl'dē-hīd) A white, powdered antiseptic and disinfectant, a polymer of formaldehyde.

**paragrammacism** (pär"ä-gäm'mä-sizm) [*Gr. para*, beside, + *gamma*, Gr. letter G, + *-ismos*, condition] An inability to pronounce "g," "k," and "ch" sounds, with substitution of other consonants such as "d" or "t."

**paraganglia** (pär"ä-gäng'lē-ä) *sing.*, **paraganglion** [" + *ganglion*, knot]

Groups of chromaffin cells, similar in staining reaction to cells of the adrenal medulla, associated anatomically and embryologically with the sympathetic system. They are located in various organs and parts of the body.

**paraganglioma** (pär"ä-gäng-lē-ō'mä) [" + " + *oma*, tumor] An extra-adrenal tumor composed of neural crest cells, which may release catecholamines into the systemic circulation and cause symptoms of sustained or episodic hypertension, with sweating, palpitations, and headache. Paragangliomas usually are found in the paravertebral ganglia or the carotid bodies.

**paraganglion** (pär"ä-gäng'lē-ön) [" + *ganglion*, knot] *Sing.* of *paraganglia*.

**parageusia, parageusis** (pär-ä-gū'sē-ä, -sis) [" + *geusis*, taste] Disorder or abnormality of the sense of taste. Intravenous fluid therapy, esp. postoperatively, may create temporary parageusia and parosmia.

**paragnathus** (pär-äg'nä-thūs) [" + *gnathos*, jaw] 1. A congenital deformity in which there is an accessory jaw. 2. A parasitic fetus attached to the outer part of the jaw of the autosome.

**paragonimiasis** (pär"ä-gön'ī-mī'ä-sis) [*Paragonimus* + *-iasis*, condition] Infection with worms of the genus *Paragonimus*. The clinical signs depend on the path the worm takes in migrating through the body, after the larvae contained in partially cooked freshwater crabs or crayfish are eaten. The larvae migrate from the duodenum to various organs, including the lungs, intestinal wall, lymph nodes, brain, subcutaneous tissues, and genitourinary tract. When the lungs are involved, the symptoms are cough and hemoptysis. In peritoneal infections, there may be an abdominal mass, pain, and dysentery. When the larvae invade the brain, paralysis, epilepsy, homonymous hemianopsia, optic atrophy, and papilledema are common. In some cases, the infected person may appear to be well. This infection is treated by administration of praziquantel.

**Paragonimus** (pär"ä-gön'ī-mūs) A genus of trematode worms.

**P. westermani** The lung fluke, a common parasite of certain mammals including humans, dogs, cats, pigs, and minks. Human infestation occurs through eating partially cooked crabs or crayfish, the second intermediate host. This infestation is endemic in certain parts of Asia. SEE: *ilus*.

**paragrammatism** (pä-rä-gräm'ä-tiz-īm) A speech defect characterized by improper use of words and inability to arrange them grammatically.

**paragranuloma** (pär"ä-grän'ū-lō'mä) [*Gr. para*, beside, + *L. granulum*, lit-





PARAGONIMUS WESTERMANI (×4)

tle grain, + Gr. *oma*, tumor] A benign form of Hodgkin's disease usually limited to lymph nodes.

**paragraphia** (pär-ä-gráf'ē-ä) [ʹ + *graphein*, to write] The writing of letters or words other than those intended.

**parahemophilia** (pä-rä-hēm'ō-fēl'ē-ä) A rare, autosomal recessive bleeding disorder in which there is a deficiency in blood clotting factor V. SYN: *Owren's disease*.

**parahypnosis** (pä-rä-hĩp-nō-sĩs) [ʹ + *hypnos*, sleep] Abnormal or disordered sleep.

**parainfluenza viruses** (pä-rä-ĩn-floo-ēn'zä) A group of viruses that cause acute respiratory infections in humans, esp. in children. Virtually all children in the U.S. have been infected by age 6.

**parakeratosis** (pär-ä-kēr-ä-tō'sĩs) [ʹ + *keras*, horn, + *osis*, condition] The persistence of nuclei within the keratinocytes of the stratum corneum of epidermis or mucosal layers, which indicates a partial keratinization process; a general term applied to disorders of the keratinized layer of the skin.

**p. ostracea** Parakeratosis scutularis.

**p. psoriasiformis** Scab formation resembling that of psoriasis.

**p. scutularis** A scalp disease with hairs encircled by epidermic crust formation. SYN: *p. ostracea*.

**parakinesia, parakinesis** (pär-ä-kĩ-nē-zē-ä, -sĩs) [ʹ + *kinesis*, movement] A condition in which movement is abnormal.

**paralalia** (pär-ä-lä-lē-ä) [ʹ + *lalein*, to babble] Any speech defect characterized by sound distortion.

**p. literalis** Stammering.

**paralambdacism** (pär-ä-läm'dä-sĩzm) [ʹ + *lambda*, Gr. letter L, + ʹ] Inability to say the letter "l" correctly, with the substitution of the sound of another letter for it.

**paralepsy** (pär-ä-lēp'sē) [ʹ + *lepis*, seizure] A temporary attack of mental inertia and hopelessness, or sudden alteration in mood or mental tension.

**paralexia** (pär-ä-lēk'sē-ä) [ʹ + *lexis*, speech] An inability to comprehend printed words or sentences, together with substitution of meaningless combinations of words.

**paralgia** (pär-äl'jē-ä) [ʹ + *algos*, pain]

An abnormal sensation that is painful.

**parallax** (pär-ä-läks) [Gr. *parallaxis*, change of position] The apparent movement or displacement of objects caused by change in the observer's position or by movement of the head or eyes.

**binocular p.** The basis of stereoscopic vision; the difference in the angles formed by the lines of sight to two objects at different distances from the eyes. This is important in depth perception.

**heteronymous p.** Parallax in which, when one eye is closed, the object viewed appears to move closer to the closed eye.

**homonymous p.** Parallax in which, when one eye is covered, the object viewed appears to move closer to the uncovered eye.

**parallelometer** (pär-ä-lēl-ōm'ē-tēr) A device used in dentistry to determine whether lines and tooth surfaces are parallel to each other.

**parallel play** (pä-rä-lēl) The stage in social development in which a child plays alongside, but not with, other children; characteristic of toddlers.

**parallel trial** A research study in which groups of patients are followed for the same time but are given different treatments; e.g., one group may receive an inactive substance while another is treated with a drug whose effectiveness must be determined. The impact of the drug can thus be compared with the placebo at varying times, such as 4 weeks, 4 months, or 4 years after the study begins.

**paralogia** (pär-ä-lō'jē-ä) [Gr. *para*, beside, + *logos*, word, reason] A disorder of reasoning.

**benign p.** Disordered thinking and communication of thought in which delusions, bizarre thoughts, hallucinations, and regressive behavior are absent. Affected patients are not severely incapacitated.

**paralogism** (pär-ä-lō'jĩz-ēm) An incorrectly chosen word inserted into speech, esp. in patients with fluent aphasia. SEE: *neologism; paraphasia*.

**paralysis** (pä-räl'ĩ-sĩs) *pl.* **paralyses** [Gr. *paralyein*, to disable] **1.** Loss of sensation; anesthesia. **2.** Loss of purposeful movement, usually as a result of neurological disease (e.g., strokes, spinal cord injuries, poliomyelitis), drugs, or toxins. Loss of motor function may be complete (paralysis) or partial (paresis), unilateral (hemiplegic) or bilateral (diplegic), confined to the lower extremities (paraplegic) or present in all four extremities (quadraplegic), accompanied by increased muscular tension and hyperactive reflexes (spastic) or by loss of reflexes and tone (flaccid). SYN: *palsy*.

**PATIENT CARE:** Referral is made to the rehabilitation therapists for evaluation of the patient's motor and sensory capabilities (muscle size, tone and strength, reflex or involuntary movement, response to touch or to painful stimuli). The patient is positioned to prevent deformities. Passive range of motion is performed on the involved extremities to prevent contractures. The patient is repositioned frequently to prevent pressure sores. Local and systemic responses, including fatigue, are evaluated. The rehabilitation team assesses and attends to any self-care deficits the patient may have. Support is offered to the patient and family to assist them in dealing with psychological concerns and the response to grief and loss. Assistance is provided to help the patient in achieving an optimal level of function and in adapting to the disability.

Important concerns include functional positioning, the prevention of deformities secondary to spasticity, and the prevention of injury when sensation is absent. A plan may be prescribed for muscle re-education and compensatory training. Functional orthoses and assistive technology devices may be necessary to assist the patient in performing self-care and other tasks of daily living.

**p. of accommodation** Inability of the ciliary muscles to alter the lens of focus on near or far objects.

**acoustic p.** Deafness.

**p. agitans** Parkinson's disease.

**alcoholic p.** Paralysis caused by the toxic effect of alcohol on spinal nerves. SYN: *alcoholic paraplegia*.

**Bell's p.** Bell's palsy.

**birth p.** Loss of function due to nerve injury during delivery. Trauma to the baby during delivery may result in damage to the brachial nerves, facial nerves, or diaphragm. Asymmetrical movements or reflexes of the affected part are present. Prognosis depends on the amount of nerve damage sustained; permanent damage is rare. Most newborn paralyzes resolve without sequelae within a few weeks or a few months after birth. SYN: *birth palsy*; *brachial palsy*; *obstetrical paralysis*.

**brachial p.** Paralysis arising from an injury received at birth to the brachial nerve.

**brachiofacial p.** Paralysis of the face and an arm.

**bulbar p.** Paralysis caused by changes in the motor centers of the medulla oblongata. SYN: *progressive bulbar paralysis*.

**complete p.** Paralysis in which there is total loss of function and sensation.

**conjugate p.** Paralysis of the conjugate movement of the eyes in all direc-

tions even though the fixation axis remains parallel.

**crossed p.** Paralysis affecting muscles of one side of the face and those in the limbs on the opposite side of the body.

**crutch p.** Paralysis due to pressure on nerves in the axilla caused by improper use of a crutch.

**decubitus p.** Paralysis caused by compression of a nerve after lying on it (e.g., in sleep or a coma).

**diphtheritic p.** Paralysis of the muscles of the palate, eyes, limbs, diaphragm, and intercostal muscles as a complication of diphtheria. It is caused by a bacterial toxin. SYN: *postdiphtheritic paralysis*.

**diver's p.** Decompression illness.

**Duchenne-Erb p.** SEE: *Duchenne-Erb paralysis*.

**facial p.** Paralysis of the facial or the trigeminal nerve; Bell's palsy.

**flaccid p.** Paralysis in which there is loss of muscle tone, loss or reduction of tendon reflexes, and atrophy and degeneration of muscles. It is caused by lesions of the lower motor neurons of the spinal cord.

**general p.** Paresis.

**ginger p.** Jamaica ginger p.

**glossolabial p.** Paralysis of the tongue and lips occurring in bulbar paralysis.

**Gubler's p.** SEE: *Gubler's paralysis*.

**hyperkalemic p.** A rare form of periodic paralysis characterized by brief (1- to 2-hr) attacks of limb weakness. Respiratory muscles are involved in some cases. "Hyperkalemic" is misleading because the potassium levels may be normal. But, because an attack is precipitated by the administration of potassium, this form of paralysis is better termed "potassium-sensitive periodic paralysis."

**TREATMENT:** Emergency treatment is seldom necessary. Oral glucose hastens recovery. Attacks may be prevented by acetazolamide or thiazide diuretics.

**hypokalemic periodic p.** A form of periodic paralysis with onset usually before adulthood. An attack typically comes on during sleep, after strenuous exercise during the day. The weakness may be so pronounced as to prevent the patient from being able to call for help. The attack may last from several hours to a day or more. The diagnosis is established by determining that the serum potassium level is decreased during an attack.

**TREATMENT:** Administration of oral potassium salts improves the paralysis. If the patient is too weak to swallow, intravenous potassium salts are required. Attacks may be prevented by oral ad-

ministration of 5 to 10 g of potassium chloride daily.

**immunological p.** The inability to form antibodies after exposure to large doses of an antigen.

**incomplete p.** Partial paralysis of the body or a part.

**infantile p.** Poliomyelitis.

**infantile cerebral ataxic p.** Cerebral palsy.

**ischemic p.** Volkmann's contracture.

**Jamaica ginger p.** Paralysis due to polyneuropathy that affects the muscles of the distal portions of the limbs. It is caused by drinking Jamaica ginger, an alcoholic beverage containing the toxin triorthocresylphosphate.

**Klumpke's p.** SEE: *Klumpke's paralysis*.

**Landry's p.** Flaccid paralysis that begins in the lower extremities and rapidly ascends to the trunk.

**laryngeal p.** Loss of vocal fold mobility. Common causes include surgical trauma to the recurrent laryngeal nerve or invasion of the nerve by a tumor. SYN: *vocal paralysis*.

**lead p.** Paralysis due to lead poisoning.

**leaden p.** Extreme fatigue, a symptom of atypical depression.

**local p.** Paralysis of a single muscle or one group of muscles.

**mimetic p.** Paralysis of the facial muscles.

**mixed p.** Paralysis of the motor and sensory nerves.

**muscular p.** Loss of the capacity of muscles to contract. It may be due to a structural or functional disorder in the muscle at the myoneural junction, in efferent nerve fibers, in cell bodies of nuclei of origin of the brain or of the gray matter of the spinal cord, in conducting pathways of the brain or spinal cord, or in motor centers of the brain.

**musculospiral p.** Saturday night palsy.

**nuclear p.** Paralysis caused by lesion of nuclei in the central nervous system.

**obstetrical p.** Birth p.

**ocular p.** Paralysis of the extraocular and intraocular muscles.

**postdiphtheritic p.** Diphtheritic p.

**posticus p.** Paralysis of the posterior cricothyroid muscles.

**Pott's p.** SYN: *Pott's paraplegia*. SEE: under *Pott, John Percivall*.

**primary periodic p.** The occurrence of intermittent weakness, usually following rest or sleep and almost never during vigorous activity. The condition usually begins in early life and rarely has its onset after age 25. The attacks may last from a few hours to a day or more. The patient is alert during an attack.

The causes include hypokalemia, hy-

perkalemia, thyrotoxicosis, and a form of paramyotonia. Both forms of the disease in which potassium regulation is a factor respond to acetazolamide. The thyrotoxicosis-related disorder is treated by correcting the underlying thyrotoxicosis. Spironolactone is the treatment for cases of paramyotonia congenita with periodic paralysis.

**progressive bulbar p.** Bulbar p.

**pseudobulbar p.** Paralysis caused by cerebral center lesions, simulating the bulbar types of paralysis.

**pseudohypertrophic muscular p.** SEE: *dystrophy, pseudohypertrophic muscular*.

**radial p.** Saturday night palsy.

**Saturday night p.** Saturday night palsy.

**sensory p.** Loss of sensation due to a structural or functional disorder of the sensory end organs, sensory nerves, conducting pathways of the spinal cord or brain, or the sensory centers in the brain.

**sleep p.** Brief, temporary inability to move or speak when falling asleep or awakening.

**spastic p.** Paralysis usually involving groups of muscles. It is caused by an upper motor neuron lesion and is characterized by excessive tone and spasticity of muscles, exaggeration of tendon reflexes but loss of superficial reflexes, and positive Babinski's reflex.

**Sunday morning p.** Saturday night palsy.

**supranuclear p.** Paralysis resulting from disorders in pathways or centers above the nuclei of origin.

**tick-bite p.** Paralysis resulting from bites of some species of ticks whose saliva contains a toxin, esp. of the genera *Ixodes* and *Dermacentor*. It affects domestic animals and humans, esp. children, and causes a progressive ascending, flaccid motor paralysis. Recovery usually occurs after removal of the ticks.

**tourniquet p.** Paralysis, esp. of the arm, resulting from a tourniquet being applied for too long a time.

**vasomotor p.** Paralysis of the vasomotor centers, resulting in lack of tone and dilation of the blood vessels.

**vocal p.** Laryngeal p.

**Volkman's p.** Volkman's contracture.

**wasting p.** Spinal muscular atrophy.

**paralytic** (pär'ä-lit'ik) [Gr. *paralyein*, to disable] 1. Concerning paralysis. 2. One afflicted with paralysis.

**paralytic ileus** Paralysis of the intestinal smooth muscles with distention of the abdomen, nausea or vomiting, abdominal pain, and inability to pass stool or gas. It may occur after abdominal surgery, during an episode of peritonitis, or

after the administration of some drugs (e.g., narcotics).

**paralyzant** (pär'ä-liz'änt) [Fr. *paralyser*, paralyze] **1.** Causing paralysis. **2.** A drug or other agent that induces paralysis.

**paralyze** (pär'ä-liz) [Fr. *paralyse*] **1.** To cause temporary or permanent loss of muscular power or sensation. **2.** To render ineffective.

**paralyzer** (pär'ä-liz'er) **1.** That which causes paralysis. **2.** A substance that inhibits a chemical reaction.

**paramagnetic** (pär'ä-mäg-nët'ik) Anything that is attracted by the poles of a magnet and becomes parallel to the lines of magnetic force.

**paramania** (pär'ä-mä'në-ä) [Gr. *para*, beside, + *mania*, madness] A type of emotional disturbance in which the individual derives pleasure from complaining.

**paramastigote** (pär'ä-mäs'ti-göt) [" + *mastix*, lash] Having a small supernumerary flagellum next to a larger one.

**paramastitis** (pär'ä-mäs-ti'tis) [" + *mastos*, breast, + *itis*, inflammation] Inflammation around the breast.

**paramedian** (pär'ä-mé'dë-än) [" + L. *medianus*, median] Close to the midline. SYN: *paramesial*.

**paramedian incision** A surgical incision, esp. of the abdominal wall, close to the midline.

**paramedic** (pär'ä-méd'ik) [Gr. *para*, beside, + L. *medicus*, doctor] A health care professional trained in the emergency care of patients who suffer from acute illnesses or injuries. Paramedics typically function in the out-of-hospital setting, under the medical direction of a physician. They are trained to provide assessment and management including cardioversion, defibrillation, electrocardiographic interpretation, external pacing, IV therapy, thoracic decompression, endotracheal intubation, and drug and fluid therapy. SEE: *emergency medical technician*.

**paramedical** (pä-rä-méd-i-läl) Supplementing the work of medical personnel.

**paramedical personnel** Health care workers who are not physicians or nurses. These include medical technicians, emergency medical technicians, and physician assistants. SEE: *allied health professional*.

**paramesial** (pär'ä-më'së-äl) [" + *mesos*, middle] Paramedian.

**parameter** (pä-räm'ë-tër) [" + *metron*, measure] **1.** In mathematics, an arbitrary constant, each value of which determines the specific form of the equation in which it appears. The term is often misused for variable. **2.** In biostatistics, a measurable or adjustable characteristic; a named value. **parametric** (pär'ä-më'trik), *adj.*

**parametric statistics** The class of statis-

tics based on the assumption that the samples measured are from normally distributed populations.

**parametritic** (pär'ä-më-trit'ik) Concerning parametritis.

**parametritis** (pär'ä-më-tri'tis) [" + *metra*, uterus, + *itis*, inflammation] An inflammation of the parametrium, the cellular tissue adjacent to the uterus. It may occur in puerperal fever or septic conditions of the uterus and appendages. SYN: *pelvic cellulitis*.

**parametrium** (pär'ä-më'trë-üm) [" + *metra*, uterus] Loose connective tissue around the uterus.

**paramimia** (pär'ä-mim'ë-ä) [" + *mim-eisthai*, to imitate] The use of gestures that are inappropriate to the spoken words that they accompany.

**paramnesia** (pär'äm-në-zë-ä) [" + *amnesia*, loss of memory] **1.** Use of words without meaning. **2.** Distortion of memory in which there is inability to distinguish imaginary or suggested experiences from those that have actually occurred. **3.** Seeming recall of events that never have occurred.

**paramolar** (pär'ä-mö'lär) A supernumerary tooth close to a molar.

**paramucin** (pär'ä-mü'sin) A glycoprotein found in ovarian and some other cysts.

**paramusia** (pär'ä-mü'zë-ä) [" + *mousa*, music] A form of aphasia in which the ability to render music correctly is lost.

**paramyloidosis** (pär-äm'i-loy-dö'sis) [" + L. *amylum*, starch, + Gr. *eidōs*, form, shape, + *osis*, condition] The presence and buildup of atypical amyloid in tissues.

**paramyoclonus multiplex** (pär-ä-mi-ök'lö-nüs mül'ti-plëks) [" + *mys*, muscle, + *klonos*, tumult] Sudden and frequent shocklike contractions usually affecting the muscles of both legs, and particularly the trunk muscles. The contractions, which disappear during sleep and motion, may occur 10 to 50 times each minute. Usually the condition develops spontaneously, but it has been known to follow fright, trauma, infectious diseases, and poliomyelitis. SYN: *polymyoclonus*.

**paramyosinogen** (pär'ä-mi'ö-sin'ö-jën) [Gr. *para*, beside, + *myosin*, protein globin of muscle, + *gennan*, to produce] Protein derived from muscle tissue.

**paramyotonia** (pär'ä-mi'ö-tö-në-ä) [" + *mys*, muscle, + *tonos*, tone] A disorder marked by muscular spasms and abnormal muscular tonicity.

**ataxic p.** Tonic muscular spasm with slight ataxia or paresis during any attempt at movement.

**p. congenita** A congenital condition of tonic muscular spasms when the body

is exposed to cold. SYN: *Eulenburg's disease*.

**symptomatic p.** Temporary muscular rigidity when one first tries to walk, as in Parkinson's disease.

**paramyxovirus** (pā-rā-mīk'sō-vī-rūs)

Any virus of a subgroup of the myxoviruses that are similar in physical, chemical, and biological characteristics, even though they are quite different pathogenetically. The group includes parainfluenza, measles, mumps, Newcastle disease, and respiratory syncytial viruses.

**paraneoplastic syndromes** (pā-rā-nēō-plās'tīk)

Indirect effects of cancers, such as metabolic disturbances or hormonal excesses produced by chemicals released by tumor cells. Tumors such as small-cell carcinoma of the lung, hypernephroma, and neuroendocrine cancers are often responsible.

**paranesthesia** (pār'an-ēs-thē'zē-ă) [" + an-, not, + *aisthesis*, sensation]

Anesthesia of the lower body.

**paraneuron** (pār'ā-noor'ōn, -nūr')

A cell of epithelial origin with a membrane that can generate an action potential and with the ability to secrete neurotransmitter at a synaptic junction but without dendrites or axon, e.g., the primary sensory cells in taste buds.

**paranoia** (pār'ā-noy'ă) [Gr. *para*, beside, + *nous*, mind]

A condition in which patients show persistent persecutory delusions or delusional jealousy. The disorder must last at least 1 week. It may be accompanied by delusional jealousy or by symptoms of schizophrenia (e.g., bizarre delusions or incoherence). There are no prominent hallucinations; a full depressive or manic syndrome is either absent or brief. The illness is not due to organic disease of the brain. SYN: *paranoid disorder*; *paranoid ideation*. SEE: *paranoid reaction type*.

This disorder, which usually occurs in middle or late adult life and may be chronic, often includes resentment and anger that may lead to violence. Paranoid people rarely seek medical attention but are brought for care by associates or relatives.

**erotomanic type p.** Erotomania.

**litigious p.** Paranoia in which the patient institutes or threatens to institute legal action because of the imagined persecution.

**somatic p.** The delusion that one's body is malodorous, infested with an internal or external parasite, or misshapen or ugly.

**paranoiac** (pār-ā-noy'ăk) **1.** Concerning or afflicted with paranoia. **2.** One suffering from paranoia.

**paranoid** (pār'ā-noyd) [" + *nous*, mind, + *eidōs*, form, shape] **1.** Resembling paranoia. **2.** A person afflicted with paranoia.

**paranoid disorder** Paranoid personality disorder (under *personality disorder*). SEE: *Nursing Diagnoses Appendix*.

**paranoid ideation** Paranoia.

**paranoid reaction type** An individual who has fixed systematized delusions, is suspicious, has a persecution complex, is resentful and bitter, and is a megalomaniac. Many states approach true paranoia and resemble it but lack one or more of its distinguishing features. Some of these are transitory paranoid states caused by toxic conditions, a paranoid type of schizophrenia, and paranoid states due to alcoholism.

**paranomia** (pār'ā-nō'mē-ă) [" + *onomia*, name] Inability to remember correct names of objects shortly after seeing or using them.

**paranormal** (pā-rā-nōr-māl) **1.** Pert. to experiences that are not explainable scientifically. SEE: *extrasensory perception*; *psychokinesis*. **2.** Moderately abnormal.

**paranuclear** (pār'ā-nū'klē-ār) Adjacent to the nucleus of a cell.

**paranucleolus** (pār'ā-nū-klē'ō-lūs) A darkly staining structure within a cell nucleus.

**paranucleus** (pār'ā-nū'klē-ūs) [Gr. *para*, beside, + L. *nucleus*, a kernel] A structure next to the nucleus of a cell.

**paraoperative** (pār'ā-ōp'ēr-ă-tīv) [" + L. *operari*, to work] Perioperative.

**paraparesis** (pār'ā-pār-ē'sis, -pār'ē-sis) [" + *parienai*, to let fall] Partial paralysis affecting the lower limbs.

**tropical spastic p.** A gradually progressive disease of the spinal cord caused by infection with human T-cell lymphotropic virus-I. SYN: *HTLV-1-associated myelopathy*.

**SYMPTOMS:** Symptoms include back pain with gradual loss of motor function in one or both legs, ataxia, and urinary incontinence.

**parapeptone** (pār'ā-pēp'tōn) [" + *peptein*, to digest] Intermediate digestion product of albumin. SEE: *peptone*.

**paraphasia** (pār-ă-fă'zē-ă) [" + *aphasia*, speech loss] A form of aphasia in which a meaningless or inappropriate word or syllable is substituted for the correct spoken word or word combinations. SYN: *paraphemia*; *paraphrasia*. **paraphasic** (-fă'zīk), *adj.*

**paraphemia** (pār'ā-fē'mē-ă) [" + *pheme*, speech] Paraphasia.

**paraphilia** (pā-rā-fēl'ē-ă) [" + *philein*, to love] A psychosexual disorder in which unusual or bizarre imagery or acts are necessary for realization of sexual excitement. Included in this disorder are bestiality, fetishism, transvestism, zoophilia, pedophilia, exhibitionism, voyeurism, sexual masochism, and sexual sadism.

**paraphimosis** (pār'ā-fi-mō'sīs) [" + *phimoun*, to muzzle, + *osis*, condition]



Strangulation of the glans penis due to retraction of a narrowed or inflamed foreskin.

**paraphrasia** (pär-ä-frä'zē-ä) [Gr. *para*, beside, + *phrasis*, speech] Paraphrasia.

**paraplasm** (pär'ä-pläzm) [Gr. *para*, beside, + LL. *plasma*, form, mold]  
 1. Any abnormal new formation or malformation. 2. The fluid portion of cytoplasm.

**paraplastic** (pär"ä-pläs'tik) [ + *plastikos*, formed] 1. Misshapen; deformed. 2. Pert. to the fluid portion of the protoplasm.

**paraplegia** (pär-ä-plē'jē-ä) [Gr. *paraplegia*, stroke on one side] Paralysis of the lower portion of the body and of both legs. It is caused by a lesion involving the spinal cord that may be due to maldevelopment, epidural abscess, hematomyelia, acute transverse myelitis, spinal neoplasms, multiple sclerosis, syringomyelia, or trauma. SEE: *Nursing Diagnoses Appendix*.

**PATIENT CARE:** Patient care during the acute period, immediately following traumatic injury, aims at stabilizing the patient and preventing further injury or deterioration. Initial and ongoing neurological assessment by nurses, the neurologist, and the neurosurgeon helps to determine the level and degree of paralysis and the patient's potential for recovery. Supportive medical therapy, based on assessment results, is provided. Specific medical, neurological, and neurosurgical interventions depend on the etiology of the paraplegia. Prescribed therapies are administered, and desired and adverse effects assessed for.

The patient should have early consultations with physical and occupational therapy staff, because correct body alignment, positioning, and exercise can prevent complications, encouraging the patient to think about rehabilitation from the beginning. The respiratory therapist also is involved early on to monitor ventilatory activity and help prevent respiratory complications. If intensive care is required, the health care provider recognizes the need to limit sensory overload by controlling and moderating environmental stimuli and to avoid sleep deprivation by planning an uninterrupted sleep time. Because immobility affects all body systems, they must each be monitored for expected and complicating changes. Medical consultations (e.g., with a pulmonologist, urologist) are made as necessary, and treatment regimens are developed based on each patient's needs.

The patient experiences paraplegia as a profound loss, affecting not only independent mobility but also self-image and self-esteem. Although the loss may be sudden or gradual, predictable or un-

expected, and temporary or permanent, depending on the cause of the patient's paraplegia, it is present nevertheless. Because family members also are affected, the health care provider includes them when helping the patient with grief work and mourning, recognizing that anger and despondency are expected responses. Referral to a mental health care provider can help patients cope with their loss.

Patients with paraplegia are usually transferred to a rehabilitation facility once the acute period has passed. This move often engenders transfer anxiety, as the patient and family fear a lesser level of care as a threat to security and well-being. Behavioral and psychosomatic manifestations may occur. A liaison nurse from the new facility can help the patient bridge the transition by providing information about the facility and the vigorous program the patient will encounter. The family should be encouraged to visit the facility and to bring any questions or concerns to their liaison, while giving the patient positive input.

Rehabilitation requires the patient's active participation to achieve his or her highest potential, and this participation begins with planning. The patient's individualized plan of care should be developed by the entire rehabilitation team, which includes the patient and significant others who make up the support system, as well as the primary physician, nurse, physiatrist, physical therapist, occupational therapist, vocational counselor, dietitian, social worker, psychologist, and neuropsychologist. The goals of the plan include learning to manage neuromuscular deficits and being able to perform activities of daily living (ADLs) with enough independence to function successfully in the home, workplace, and social situations. Activities include proper positioning, range-of-motion exercises, balancing and sitting, transfer activities, ambulation, and use of equipment to aid ambulation (if the patient will be able to walk with the aid of braces, canes, or crutches) or adjustment to being in a wheelchair. Skin care is of great importance, as persons with paraplegia are at risk for pressure sore development because of their motor, sensory, and vasomotor deficits. Poor nutrition, infection, debilitation, edema, and prolonged immobility are contributing factors. Assessment and prevention of breakdown, as well as treatment of most areas of broken skin, fall within the purview of nursing, although severe pressure sores may require surgical débridement and plastic surgery.

Cystometric studies help to assess bladder function and determine the pa-

tient's ability to participate in a bladder-retraining program, as opposed to requiring catheter or condom-catheter drainage methods. Bowel incontinence also demands assessment of cause and contributing factors (autonomic dysfunction, sacral injury, immobility, decreased food intake, esp. roughage). Incontinence is managed matter-of-factly, getting the patient involved, observing behavioral cues related to the need for defecation, noting defecation habits and using them for appropriate toileting, and supporting the patient's self-esteem. Bowel retraining involves establishing and maintaining a defecation routine. All members of the rehabilitation team, but esp. mental health care providers, are involved in helping the patient and family cope with the lifestyle changes necessitated by the illness or injury. Psychosocial care begins with hearing the patient's and family's perceptions of the impact of the disability and their expectations for the future, and learning about their personalities, previous coping abilities, and previous adjustment patterns.

The adjustment to discharge to home or group living adds its own set of transfer anxieties. The team teaches the patient and family any special procedures they will need and determines home and vehicle modifications needed to provide access for wheelchair or other necessary equipment. Group sessions with others who have faced similar situations often help both the patient and family. Initiating the move with a "weekend pass," followed by a return to process feelings and activities, can also help. It is important to note that rehabilitation, instead of ending with discharge, is an ongoing process central to living a worthwhile life. Involvement in paraplegic group activities including a variety of sports (wheelchair basketball, swimming) helps patients to focus on what they can learn, enjoy, and accomplish.

**alcoholic p.** Alcoholic paralysis.

**ataxic p.** Lateral and posterior sclerosis of the spinal cord characterized by slowly progressing ataxia and paresis.

**cerebral p.** Paraplegia from a bilateral cerebral lesion.

**congenital spastic p.** Infantile spastic p.

**p. dolorosa** Paraplegia due to pressure of a neoplasm on the posterior spinal cord and nerve roots; extremely painful despite paralysis.

**infantile spastic p.** Spastic paraplegia that occurs in infants, usually due to birth injury. SYN: *congenital spastic paraplegia*.

**peripheral p.** Paraplegia due to pressure on, injury to, or disease of peripheral nerves.

**Pott's p.** Pott's paralysis. SEE: under *Pott, John Percivall*.

**primary spastic p.** Paraplegia from degeneration in corticospinal tracts.

**superior p.** Paralysis of both arms.

**paraplegic** (pär-ä-plé'jik) [Gr. *paraplegia*, stroke on one side] Pert. to, or afflicted with, paraplegia.

**paraplegiform** (pär-ä-plé'j'i-form) [" + *L. forma*, form] Similar to paraplegia.

**parapoplexy** (pär-äp'ö-plék'sē) [" + *apoplesein*, to cripple by a stroke] A mild or slight apoplexy with partial stupor; a stupor resembling apoplexy. SYN: *pseudoapoplexy*.

**parapraxia** (pär-ä-präk'sē-ä) [" + *praxis*, doing] Disturbed mental processes producing inaccuracy, forgetfulness, and tendency to misplace things and make slips of speech or pen.

**paraproctitis** (pär-ä-prök-ti'tis) [Gr. *para*, beside, + *proktos*, anus, + *itis*, inflammation] Inflammation of the tissues near the rectum.

**paraprofessional** (pär-ä-prö-fësh'ün-äl) A person with education and training in a specific area of one of the professions (e.g., medicine or law) who provides services in that profession as an extension of an individual licensed to practice independently.

**paraprostatitis** (pär-ä-prös'tä-ti'tis) [" + *prostates*, prostate, + *itis*, inflammation] Inflammation of the tissues around the prostate.

**paraprotein** (pär-ä-prö'tē-ïn) An abnormal plasma protein, such as a macroglobulin, cryoglobulin, or immunoglobulin. SEE: *paraproteinemia*.

**paraproteinemia** (pä-rä-prö-tēn-ē'mēä) The presence of abnormal or excessive amounts of proteins, such as immunoglobulins or cryoglobulins, in the blood. Paraproteinemias include amyloidosis, cryoglobulinemia, cryofibrinogenemia, cold IgM antibody disease, light chain disease, monoclonal gammopathy, multiple myeloma, and Waldenström's macroglobulinemia. Plasma exchange therapy, immunomodulating drugs, or specific chemotherapeutic agents are used to treat these disorders.

**parapsoriasis** (pär-ä-sö-rī-ä-sīs) [" + *psoriasis*, an itching] A chronic disorder of the skin marked by scaly red lesions.

**p. en plaque** A form of parapsoriasis that is often the precursor of mycosis fungoides.

**p. lichenoides chronica** A form of parapsoriasis that forms a widespread network over the extremities and trunk that is red to blue, sometimes resembling psoriasis or lichen planus.

**parapsychology** (pär-ä-si-köl'ö-jē) A brand of psychology that deals with alleged instances of extrasensory perception, telepathy, psychokinesis, clairvoyance, and associated phenomena.

**paraquat** (pär'ä-kwät) A toxic chemical used in agriculture to kill certain weeds. It damages the skin on contact and if ingested may cause vomiting, diarrhea, and liver, renal, and pulmonary disease. This chemical is sometimes present as a contaminant in marijuana.

**pararectal** (pär'ä-rëk'täl) [" + L. *rectum*, straight] Close to the rectum.

**parareflexia** (pär'ä-rë-flëk'së-ä) An abnormal condition of the reflexes.

**pararenal** (pär'ä-rë'näl) [" + L. *ren*, kidney] Near the kidneys.

**pararhotacism** (pär'ä-rö'tä-sizm) [" + *rho*, Gr. letter R, + *-ismos*, condition] Rhotacism.

**parasacral** (pär'ä-sä'kräl) [" + L. *sacrum*, sacred] Close to the sacrum.

**parasalpingitis** (pär'ä-säl-pin-jī'tis) [" + *salpinx*, tube, + *itis*, inflammation] Inflammation of the tissues around an oviduct or a eustachian tube.

**parasexuality** (pär'ä-sëks'ü-äl'jē-të) [" + L. *sexus*, sex] Recombination without sexual reproduction, as in fungi.

**paragrammatism** (pär'ä-sig'mä-tizm) [" + *sigma*, Gr. letter S, + *-ismos*, condition] Inability to pronounce "s" correctly; lisp.

**parasite** (pär'ä-sit) [" + *sitos*, food]  
**1.** An organism that lives within, upon, and at the expense of another organism (its "host"), causing harm. **2.** The smaller or incomplete element of conjoined twins that is attached to and dependent on the more nearly normal twin (autosite).

**accidental p.** A parasite infesting a host that is not its normal host. SYN: *incidental parasite*.

**external p.** A parasite that lives on the outer surface of its host, such as a flea, louse, mite, or tick. SYN: *ectoparasite*.

**facultative p.** A parasite capable of living independently of its host at times; the opposite of an obligate parasite.

**incidental p.** Accidental p.

**intermittent p.** A parasite that visits its host at intervals for nourishment. SYN: *occasional parasite*.

**internal p.** A parasite such as a protozoan or worm that lives within the body of the host, occupying the digestive tract or body cavities, or living within body organs, blood, tissues, or cells. SYN: *endoparasite*.

**obligate p.** A parasite completely dependent on its host; the opposite of a facultative parasite.

**obligate intracellular p.** A parasite such as a virus or rickettsia that can reproduce only when within a living cell, although it may survive outside cells.

**occasional p.** Intermittent p.

**periodic p.** A parasite that lives on the host for short periods of time.

**permanent p.** A parasite, such as a fluke or an itch mite, that lives on its

host until maturity or spends its entire life on its host.

**specific p.** A parasite that requires a specific host in order to complete its life cycle.

**parasitic** (pär'ä-sit'ik), *adj.*  
**parasitemia** (pär'ä-sit'ë-më-ä) [" + " + *haima*, blood] The presence of parasites in the blood.

**parasitic disease** A disease resulting from the growth and development of parasitic organisms (plants or animals) in or on the body.

**parasiticide** (pär'ä-sit'is'id) [" + " + L. *caedere*, to kill] **1.** Destructive to parasites. **2.** An agent that kills parasites.

**parasitism** (pär'ä-sit'izm) [" + " + *-ismos*, condition] **1.** The state or condition of being infested or infested with parasites. **2.** The behavior of a parasite.

**parasitize** (pär'ä-sit-iz) To infest or infect with a parasite.

**parasitogenic** (pär'ä-sit'jën'ik) [" + " + *gennan*, to produce] **1.** Caused by parasites. **2.** Favoring parasitic development.

**parasitologist** (pär'ä-sit'öl'ō-jist) [" + " + *logos*, word, reason] One who specializes in the science of parasitology.

**parasitology** (pär'ä-sit'öl'ō-jë) [" + " + *logos*, word, reason] The study of parasites and parasitism.

**parasitosis** (pär'ä-sit'ō'sis) [" + " + *osis*, condition] A disease or condition resulting from parasitism.

**delusional p.** The psychotic obsession or belief that one is infested with insects or parasites.

**parasitotropic** (pär'ä-sit'ō-tröp'ik) [" + " + *tropos*, turning] Having an attraction for parasites, esp. certain drugs that act chiefly on parasites in the body.

**parasitotropism** (pär'ä-sit'öt'rō-pizm) [" + " + " + *-ismos*, condition] The special affinity of drugs or other agents for parasites.

**parasomnia** (pär'ä-söm'në-ä) [" + L. *somnus*, sleep] Any of several abnormal experiences or behaviors occurring during sleep (e.g., bruxism, night terrors, or sleepwalking). SEE: *sleep disorder*.

**paraspadias** (pär-ä-spä'dë-äs) [Gr. *paraspadein*, to draw aside] A condition in which the urethra has an opening through one side of the penis.

**parasternal** (pär-ä-stërn'äl) [" + *sternon*, chest] Alongside the sternum.

**p. region** The area between the sternal border and parasternal line.

**Parastromylus** (pär'ä-ström'jël-us) The former name for the roundworm genus *Angiostrongylus*. SEE: *Angiostrongylus*.

**parasuicide** (pä'rä-sü'is'id) The intentional act of injuring or harming oneself without intending to commit suicide.

**parasympathetic** (pär'ä-sim'pä-thët'ik) [" + *sympathetikos*, sympathetic nerve] Of or pert. to the craniosacral division of the autonomic nervous system.

**parasympathetic nervous system** The craniosacral division of the autonomic nervous system. Preganglionic fibers originate from nuclei in the midbrain, medulla, and sacral portion of the spinal cord. They pass through the third, seventh, ninth, and tenth cranial nerves and the second, third, and fourth sacral nerves, and synapse with postganglionic neurons located in autonomic (terminal) ganglia that lie in the walls of or near the organ innervated. SEE: *autonomic nervous system* for table.

Some effects of parasympathetic stimulation are constriction of the pupil, contraction of the smooth muscle of the alimentary canal, constriction of the bronchioles, slowing of the heart rate, and increased secretion of the digestive glands.

**parasympatholytic** (pär"ä-sim"pä-thō-lit'ik) [" + " + *lytikos*, dissolving] Having a destructive effect on or blocking parasympathetic nerve fibers.

**parasympathomimetic** (pär"ä-sim"pä-thō-mim-ët'ik) [" + " + *mimetikos*, imitative] Producing effects similar to those resulting from stimulation of the parasympathetic nervous system.

**parasyovitis** (pär"ä-sin'ō-vi'tis) [" + *syn*, with, + *oon*, egg, + *itis*, inflammation] Inflammation of tissues around a synovial sac.

**parasytostole** (pär-ä-sis'tō-lē) [" + *sytole*, contraction] An ectopically originating cardiac rhythm independent of the normal sinus rhythm.

**paratenic host** A parasitized organism in which the parasite thrives but does not undergo development.

**paratenon** (pär"ä-tën'ōn) [" + *tenon*, tendon] Fatty and areolar tissue that fills the spaces within the fascia around a tendon.

**paratestis** (pär"ä-tës'tis) [" + "] The anatomical structures immediately adjacent to the testis.

**parathion** (pär"ä-thi'ōn) An agricultural insecticide that is highly toxic to humans and animals.

**p. poisoning** Poisoning contracted by accidental inhalation or ingestion while working with the pesticide or because of the inadvertent contamination of food products eaten. Shortly after exposure, headache, sweating, salivation, lacrimation, vomiting, diarrhea, muscular twitching, convulsions, dyspnea, and blurred vision occur. SEE: *Poisons and Poisoning Appendix*.

**parathormone** (pär"ä-thor'mōn) [Gr. *para*, beside, + *thyreos*, shield, + *eidos*, form, shape, + *hormaein*, to excite] Parathyroid hormone.

**parathyroidectomy** (pär"ä-thi-royd-ëk'tō-mē) [" + " + " + *ektome*, excision] Surgical removal of one or more of the parathyroid glands; used as a treatment for hyperparathyroidism or

neoplasm. Because the parathyroid glands maintain serum calcium levels, removal of the parathyroid glands may produce profound hypocalcemia. SEE: *Nursing Diagnoses Appendix*.

**PATIENT CARE:** The patient's understanding of the procedure and postoperative care is assessed. The health care provider gives additional information and answers questions. Baseline levels of serum potassium, calcium, phosphate, and magnesium are obtained prior to treatment and are carefully monitored in both blood and urine throughout preoperative treatment and the postoperative period. Preoperatively serum calcium levels are reduced by forcing fluids, limiting calcium in the diet, using intravenous normal saline solution plus furosemide or ethacrinic acid to promote diuresis and increase sodium and calcium excretion, and administering sodium or potassium phosphate, subcutaneous calcitonin, intravenous bisphosphonates, or intravenous plicamycin. During this period of hydration, fluid intake and output are recorded, with total intake of at least 3 L/day. All urine is strained for calculi. Breath sounds are auscultated frequently to assess the patient for volume overload. Because the patient is at risk for pathologic fractures, safety precautions are taken to minimize potential injuries. The bed is kept in low position with side rails in place. The patient is moved and turned gently and carefully, and assisted with walking. Postoperatively, all general patient care concerns apply. The head of the patient's bed should be slightly elevated (semi-Fowler's position) and the patient watched closely for respiratory distress. A tracheostomy tray should be available at the bedside for emergency use. The patient is also assessed for laryngeal nerve damage (hoarseness or loss of voice) and hemorrhage. The operative site is checked for swelling, dressings (and especially the posterior neck) checked for bleeding, and the head and neck supported with sandbags to reduce edema, which can result in pressure on the trachea and other vital structures. The patient is assessed for signs of tetany (tingling around the mouth or in the hands), which should subside. Calcium gluconate or calcium chloride is kept available for intravenous administration should neuromuscular irritability or other signs of severe tetany occur. During the first 4 to 5 days postoperatively, supplemental calcium may be needed as serum calcium falls to low normal levels, and vitamin D or calcitriol also may be given to help raise calcium levels. If serum levels of magnesium or phosphate are low, magnesium phosphate or sodium phosphate is administered in-

travenously, or given orally or by retention enema. Listlessness, irritability, and muscle weakness may indicate persistent hypercalcemia. Pain is monitored, and pain control is provided by patient-controlled analgesia or by round-the-clock preventive dosing. Well-supported ambulation is begun early in the postoperative period, as pressure on long bones encourages bone recalcification. Before discharge, the patient is taught about prescribed drug therapies, including adverse effects that should be reported, and about the importance of recognizing and seeking medical attention for signs of calcium deficiency. Instruction is provided in incisional care. The importance of ambulation and activity is emphasized. Arrangements are made for initial postoperative visits to the surgeon and/or endocrinologist.

**parathyrotropic** (pär"ä-thī-rō-trōp'ik) [" + " + *tropikos*, turning] Having an affinity for the parathyroid gland.

**paratope** (pär"ä-tōp) [" + *topos*, a place] The site on an antibody to which an antigen attaches. SEE: *epitope*.

**paratransit** (pär"ä-tränzīt) [" + *transit*] Transportation shared by a number of individuals or agencies to deliver patients or nursing home residents to specific facilities or services. Paratransit vehicles share some elements with municipal buses and private cars that meet immediate personal transportation demands. They are typically wheelchair-accessible vans or buses. They can be contracted to be available on-call or may make scheduled trips between health care facilities.

**paratrachosis** (pär"ä-trī-kō'sīs) [" + *trichosis*, being hairy] An abnormality of the hair or of its location.

**paratrophic** (pär"ä-trō'fik) [" + *trophe*, nourishment] 1. Requiring a living organism for food; parasitic. 2. Pert. to abnormal nutrition.

**paratyphlitis** (pär"ä-tif-lī'tīs) [" + *typhlos*, blind, + *itis*, inflammation] Inflammation of the connective tissue close to the cecum.

**paratyphoid fever** (pär-ä-tī'fōyd) A rare form of febrile gastroenteritis in Western societies, marked by fevers, abdominal pain, diarrhea, headache, and occasionally intestinal perforation. It is caused by *Salmonella paratyphi* (A and B strains) and related *Salmonella* species, typically contracted by travelers who have visited tropical countries. Antibiotic treatments include ciprofloxacin or chloramphenicol.

**paraumbilical** (pär"ä-üm-bil'ik-äl) [" + *L. umbilicus*, navel] Periumbilical.

**paravaccinia** (pär"ä-vāk-sīn'ē-ä) A viral disease that affects the udders of cows and may be transmitted to humans. In

humans, the virus produces painless smooth or warty lesions, called "milker's nodules," on the hands and arms. SEE: *milker's nodules*.

**parvaginitis** (pär"ä-vāj-in-ī'tīs) [" + " + *itis*, inflammation] Inflammation of the tissue surrounding the vagina.

**paravenous** (pär"ä-vē'nūs) [" + *L. vena*, vein] Located close to a vein.

**paravertebral** (pär"ä-vēr'tē-bräl) [" + *L. vertebralis*, pert. to vertebrae] Alongside or near the vertebral column.

**paraxial** (pär-äk'sē-äl) [" + *L. axis*, axis] On either side of the axis of the body or one of its parts.

**parazoon** (pär"ä-zō'ōn) [" + *zoon*, animal] An animal that lives as a parasite on another animal.

**parched** (pärch) [ME. *parchen*] Extremely dry.

**Paré, Ambroise** (pär-ä') French surgeon, 1510–1590, who instituted certain refined techniques into surgery, obstetrics, and wound care.

**parectropia** (pär'äk-trō'pē-ä) [" + *ek*, out, + *tropē*, a turn] Apraxia.

**paregoric** (pär-ē-gor'ik) [*L. paregoricus*, soothing] 1. Camphorated tincture of opium, a narcotic-containing drug that in large doses is poisonous; used in the symptomatic treatment of diarrhea. 2. Soothing.

**parelectronic** (pär"ē-lēk'trō-nōm'ik) [Gr. *para*, beside, + *elektron*, amber, + *nomos*, law] Not subject to electric stimulus.

**parencephalia** (pär"ēn-sē-fā'lē-ä) [" + *enkephalos*, brain] A congenital defect of the brain.

**parencephalocoele** (pär"ēn-sēf'ä-lō-sēl) [" + " + *kele*, tumor, swelling] Herniation of the cerebellum through a defect in the cranium.

**parencephalous** (pär"ēn-sēf'ä-lūs) [" + *enkephalos*, brain] A fetus with imperfect development of the cranium.

**parenchyma** (pär-ēn'kī-mä) [Gr. *parenkheim*, to pour in beside] The essential parts of an organ that are concerned with its function in contradistinction to its framework.

**parenchymatitis** (pär"ēn-kīm"ä-tī'tīs) [" + *itis*, inflammation] Inflammation of the parenchyma or substance of a gland.

**parenchymatous** (pär"ēn-kīm'ä-tūs) Concerning the essential tissues of an organ.

**parens patriae** (pär'ēnz pä'trē-ē, pä'h'rēns pä'h'trē-ī) [L. "father of (his) country," a term of art in U.S. and U.K. law] The power of the courts to protect the interests of people who cannot protect themselves. In health care, this power is sometimes invoked on behalf of children (and other dependent or incompetent individuals) in order to provide them with medical care that has been refused by their family.



**parent** (pär-ënt) [L. *parens*] A father or a mother; one who begets offspring.

**birth p.** The biological parent(s) of a child. SEE: *surrogate parenting*.

**parentage, determination of** (pär-ëntj) SEE: *paternity test*.

**parental consent** Permission granted to a health care provider by a child's mother or father for health care services.

**parental leave** (pär-ën-täl) The policy of allowing one or both parents to have leave from work following the birth of their child.

**parenteral** (pär-ën'tër-äl) [Gr. *para*, beside, + *enteron*, intestine] Denoting any medication route other than the alimentary canal, such as intravenous, subcutaneous, intramuscular, or mucosal. SEE: *medication route*.

**p. nutrition** SEE: *total parenteral nutrition*.

**parenteral therapy** A medicine or solution administered via a route other than ingestion.

**parenting** (pär-ën-tëng) 1. Caring for and raising a child or children. 2. Producing offspring.

**impaired p.** Inability of the primary caretaker to create an environment that promotes the optimum growth and development of the child. SEE: *Nursing Diagnoses Appendix*.

**impaired p., risk for** Risk for inability of the primary caretaker to create, maintain, or regain an environment that promotes the optimum growth and development of the child. SEE: *Nursing Diagnoses Appendix*.

**surrogate p.** An alternative method of childbearing for an infertile couple in which the wife is unable to bear a child. The surrogate mother agrees to be artificially inseminated by the husband's sperm and to relinquish the baby to the couple. Another approach is to retrieve eggs from the infertile wife and have them impregnated in vitro by her husband. The fertilized ovum is then implanted in the surrogate mother. SEE: *fertilization, in vitro*; *GIFT*.

**parenting, readiness for enhanced** A pattern of providing an environment for children or other dependent persons that is sufficient to nurture growth and development and can be strengthened. SEE: *Nursing Diagnoses Appendix*.

**paresis** (pär'ë-sis, pä-rë'sis) [Gr. *parienai*, to let fall] 1. Partial or incomplete paralysis. SEE: *paralysis*. 2. A dated but occasionally used term for neurological complications of syphilis.

**paretic** (pä-rët'ik), *adj.*

**paresthesia** (pär'ës-thë'zë-ä) [Gr. *para*, beside, + *aisthesis*, sensation] An abnormal or unpleasant sensation that results from injury to one or more nerves, often described by patients as numb-

ness or as a prickly, stinging, or burning feeling.

**Berger's p.** Paresthesia of the legs that occurs in young people.

**pareunia** (pär-ë-ü'në-ä) [Gr. *pareunos*, lying beside] Sexual intercourse. SEE: *dyspareunia*.

**paries** (pä'rë-ës) *pl. parietes* [L., a wall] The enveloping wall of any structure; applied esp. to hollow organs.

**parietal** (pä-rë-täl) [L. *parietalis*] 1. Pert. to, or forming, the wall of a cavity. 2. Pert. to the parietal bone.

**p. cell** A large cell on the margin of the gastric glands of the stomach that secretes hydrochloric acid and intrinsic factor. SYN: *oxyntic cell*. SEE: *achlorhydria*; *anemia*, *pernicious*; *intrinsic factor*.

**Parietaria judaica** (pär'ë-tär'ë-ä joo-dä'í-kä) [L., Jew's pellitory] ABBR: Par j. The scientific name for a weed found primarily in southern Europe and the Mediterranean. Allergens derived from the pollen of this weed are a common cause of seasonal allergies. SYN: *pellitory-of-the-wall*.

**parietofrontal** (pä-rë-të-frön'täl) Pert. to both the parietal and frontal bones of the skull or the parietal and frontal lobes of the brain.

**parieto-occipital** (pä-rë-të-tö-ök-síp'í-täl) Pert. to both the parietal and occipital bones of the skull or the parietal and occipital lobes of the brain.

**parietosquamosal** (pä-rë-të-tö-skwä-mó'säl) Concerning the parietal bone and squamous part of the temporal bone.

**parietotemporal** (pä-rë-të-tö-tém'pö-räl) Concerning the parietal and temporal bones or lobes.

**parietovisceral** (pä-rë-të-tö-vís'ër-äl) Concerning the wall of a body cavity and the viscera within.

**Parinaud, Henri** (pä-rí-nö') French ophthalmologist, 1844–1905.

**P.'s oculoglandular syndrome** Conjunctivitis with palpable preauricular lymph nodes.

**P.'s ophthalmoplegia syndrome** Dorsal midbrain syndrome with palsy of vertical gaze. It is caused by a brainstem lesion near the vertical gaze center. Sometimes associated with inability to converge the eyes and poor pupillary response to light.

**pari passu** (pär'ë-päs'ü) [L., with equal speed] Occurring at the same time or at the same rate; side by side.

**parity** (pär'í-të) [L. *par*, equal] Equality, similarity.

**parity** (pär'í-të) [L. *parere*, to bring forth, to bear] The number of live children a woman has delivered. SEE: *multiparity*; *nulliparity*.

**Parkinson, James** (pär'kin-sün) British physician, 1755–1824.

**P. disease** ABBR: PD. A common, chronic degenerative disease of the cen-



tral nervous system that produces progressive movement disorders and changes in cognition and mood. Its hallmarks include a pill-rolling tremor of the hands, muscular rigidity, loss of facial expression, difficulty initiating movements (akinesia, bradykinesia), and gait disturbances (esp. shuffling gait, festination, and sometimes difficulty initiating forward movements). Parkinson's disease is usually found in people over the age of 65. Its underlying cause is unknown; it is clear, however, that dopamine production by brain cells in the substantia nigra is diminished in the disease. Although PD often clusters in families, it is uncertain whether this is the result of genetics or of exposure to common precipitating agents (viruses, toxins, or drugs). In the U.S. about 1.5 million people have PD, with about 50,000 new cases diagnosed each year. SEE: *Nursing Diagnoses Appendix*.

**SYMPTOMS:** Most patients report gradual onset of fatigue, or malaise, followed by evidence of a tremor in one or more extremities, typically a hand when it is at rest. Such tremors increase during periods of anxiety or stress but decrease during purposeful motion or sleep. Other common symptoms include difficulty getting up from a chair or turning over in bed, a change in vocal quality (a softer, less audible, more monotonous voice), shuffling gait that becomes faster after a few steps (festination), and a stooped posture. As the years pass, frequent falls may occur. Occasionally a tendency to fall backward (retropulsion) replaces festination. Facial expressiveness may diminish (patients are said to have masklike facies), swallowing often becomes impaired, and handwriting may become smaller or more cramped (micrographia).

**TREATMENT:** The goal of treatment is to maintain function for as long as possible and relieve symptoms. Medical therapies include selegiline, levodopa/carbidopa; dopamine agonists (e.g., bromocriptine); inhibitors of catechol-o-methyltransferase (e.g., entacapone), and monoamine oxidase-B inhibitors (e.g., deprenyl). Surgical therapy, which is performed at a small number of hospitals, may involve transplantation of dopamine-secreting cells (fetal brain tissue, nerve cells from other parts of the patient's body) into affected areas of the brain or insertion of electrical brain stimulators into the subthalamic nucleus, globus pallidus internus, or ventral intermediate nucleus. Physical therapy is a very important part of the treatment, helping to maintain muscle tone and function.

**PATIENT CARE:** Teamwork benefits the PD patient, who may require a social worker, nurses, primary care pro-

viders, a neurologist, registered dietitian, physical therapist, occupational therapist, and speech therapist. Patients should be monitored for the efficacy and safety of drug therapy, particularly when a new drug is prescribed. Drug-drug interactions are common but may be avoided with careful dose titration and prescribing. Elderly patients are at increased risk for adverse effects because of reduced drug tolerance and should be assessed for postural hypotension, pulse irregularities, blepharospasm, and anxiety and confusion. Drug dosages should be reduced if adverse side effects occur. If patients have periods of immobility alternating with periods of severely impaired mobility, they may need changes in their medication schedule or new, additional medications. The patient and family are taught safety measures to prevent injury caused by falling, as well as swallowing techniques to deal with dysphagia. Prescribed drugs are administered and evaluated for desired effects and adverse reactions; the patient is instructed in their use and potential side effects so that the dosage can be adjusted to minimize the side effects. The nurse, physician, or occupational or physical therapist teaches the patient and family about safety measures to prevent injury, about drug-related dietary restrictions, and about the need for frequent small feedings to provide needed fluids, calories, and dietary bulk. Drinking at least 2 L/day of liquids and eating a high-fiber diet help to establish a regular bowel routine; an elevated toilet seat and frame can help the patient in moving from sitting to standing position. Independence is encouraged. The patient should plan daily activities for when he or she feels rested to prevent fatigue, but even so, the patient needs to exercise regularly (active and passive range of motion, walking, massage, baths, carrying out activities of daily living) to help relax muscles and prevent contractures and muscle atrophy. Education about progression of the disease and emotional support are provided; the family is assisted to recognize and fulfill the patient's need for intellectual stimulation and recreation. The patient is also referred to national organizations (e.g., the National Parkinson Foundation, Inc.; [www.parkinson.org](http://www.parkinson.org)) for additional information.

**P.'s facies** The immobile, masklike, facial expression that is a hallmark of Parkinson disease and postencephalitic states. SYN: *Parkinson's mask*.

**parkinsonian** (pär'kin-sön'e-än) Concerning Parkinson disease and/or its characteristic signs and symptoms.

**parkinsonism** (pär'kin-sön-izm") A neurological disorder in which a few but not

all of the symptoms of Parkinson disease are present.

**PAR nurse** *Postanesthesia recovery room nurse.*

**parodontitis** (pär"ō-dōn-tī'tis) [" + *odous*, tooth, + *itis*, inflammation] Inflammation of the tissues around a tooth.

**parodontium** (pär"ō-dōn'shē-ūm) Periodontium.

**parole** (pā-rōl) [Fr. *parole*, short for *parole d'honneur*, word of honor] **1.** In psychiatry, the release of a patient from the hospital on a trial basis. **2.** In the criminal justice system, the release of an incarcerated individual to monitored life in society at large.

**paromphalocele** (pär"ōm-fāl'ō-sēl") [" + *omphalos*, navel, + *kele*, tumor, swelling] A hernia or tumor close to the umbilicus.

**paronychia** (pär-ō-nīk'ē-ā) [" + *onyx*, nail] An acute or chronic infection of the marginal structures about the nail. SYN: *felon*; *runaround*; *whitlow*. SEE: *illius*.



PARONYCHIA

**SYMPTOMS:** The nail edge shows redness, swelling, and suppuration.

**TREATMENT:** Therapy may involve moist heat application, oral antibiotics, or surgical drainage.

**paroophoritis** (pär"ō-ōf'ō-rī'tis) [" + *oophoros*, bearing eggs, + *itis*, inflammation] Inflammation of the tissues around the ovary.

**paroophoron** (pär"ō-ōf'ā-rōn") [" + *oophoros*, bearing eggs] A group of minute tubules located in the mesosalpinx between the uterus and ovary. It is a vestigial structure consisting of the remains of the caudal group of mesonephric tubules and is a homologue of the paradidymis of the male.

**parophthalmia** (pär-ōf-thāl'mē-ā) [" + *ophthalmos*, eye] Inflammation of the tissue around the eye.

**parorchidium** (pär-or-kīd'ē-ūm) [" + *orchis*, testicle] Abnormal position, or

nondescent, of a testicle. SYN: *ectopia testis*.

**parexia** (pär-ō-rēk'sē-ā) [" + *orexis*, appetite] An abnormal craving for unusual foods. SEE: *pica*; *taste*.

**parosmia** (pär-ōz'mē-ā) [" + *osme*, odor] Any disorder or perversion of the sense of smell; a false sense of odors or perception of those that do not exist. Agreeable odors are considered offensive, and disagreeable ones pleasant. Intravenous fluid therapy, esp. postoperatively, may create temporary parageusia and parosmia. SYN: *parosphresia*. SEE: *cacosmia*.

**parosphresia, parosphresis** (pär"ōs-frē'zē-ā, -sīs) [" + *osphresis*, smell] Parosmia.

**parosteal** (pär-ōs'tē-āl) Concerning the outermost layer of the periosteum.

**parosteitis, parostitis** (pär-ōs-tē-ī'tis, -tī'tis) [Gr. *para*, beside, + *osteon*, bone, + *itis*, inflammation] Inflammation of tissues next to the bone.

**parosteosis, parostosis** (pär"ōs-tē-ō'sīs, -tō'sīs) [" + *osteon*, bone, + *osis*, condition] **1.** Bone formation outside of the periosteum. **2.** Bone development in an unusual location.

**parotidectomy** (pär-rōt'ī-dēk'tō-mē) [" + *ous*, ear, + *ektome*, excision] Excision of the parotid gland. This procedure is most often performed to excise a malignancy and less often to remove a stone (calculus) that cannot be extracted from Stenson's duct in the mouth.

**PATIENT CARE:** The patient's understanding of the procedure and postoperative care is assessed, including suctioning and nasogastric tube for drainage. The patient is encouraged to express feelings and anxiety about the surgery and alterations in body image. After surgery, the patient is asked to perform facial movements such as smiling, frowning, and exposing teeth to observe for possible damage to the facial nerve. Pain is managed. Drainage should be observed for excessive bleeding. A patent airway is maintained, and good oral hygiene and nutrition are encouraged.

**parotitis, parotiditis** (pär-rōt'ī-dī'tis, pär-rō-tī'tis) [" + *ous*, ear, + *itis*, inflammation] Inflammation of the parotid gland.

**granulomatous p.** Granulomatous inflammation of the parotid gland, usually due to tuberculosis or sarcoidosis.

**suppurative p.** Bacterial infection of the parotid gland, usually in patients with decreased salivary flow. It is often caused by *Staphylococcus aureus*.

**parous** (pär'ūs) [L. *pario*, to bear] Parturient; fruitful; having borne at least one child.

**parovarian** (pär-ō-vā-rē-ān) [Gr. *para*, beside, + LL. *ovarium*, ovary] **1.** Sit-

uated near or beside the ovary. **2.** Pert. to the parovarium, a residual structure in the broad ligament.

**parovariotomy** (pär"ô-vā"rē-ôt'ô-mē) [*"* + *"* + Gr. *tome*, incision] Removal of a parovarian cyst.

**parovaritis** (pär"ô-vā-rī'tis) [*"* + LL. *ovarium*, ovary, + Gr. *itis*, inflammation] Inflammation of the epoophoron.

**parovarium** (pär"ô-vā'rē-üm) Epoophoron.

**paroxetine** (pär-ôx'ë-tën) A selective serotonin reuptake inhibitor used as an anti-anxiety agent and antidepressant. It is administered orally to manage depression, panic, obsessive-compulsive disorder, social anxiety, and general anxiety. It may be used as an adjunct to psychotherapy.

**paroxysm** (pär'ôk-sizm) [Gr. *paroxysmos*, irritation] **1.** A sudden, periodic attack or recurrence of symptoms of a disease; an exacerbation of the symptoms of a disease. **2.** A sudden spasm or convulsion of any kind. **3.** A sudden emotional state, as of fear, grief, or joy.

**paroxysmal** (pär'ôk-siz'mäl) Occurring repeatedly and without warning.

**p. nocturnal hemoglobinuria** SEE: under *hemoglobinuria*.

**paroxysmal nocturnal dyspnea** SEE: *dyspnea*, *paroxysmal nocturnal*.

**Parrot, Joseph Marie Jules** (pär-ô') French physician, 1829–1883.

**P.'s disease** **1.** Osteochondritis that occurs in infants with congenital syphilis. **2.** A form of dwarfism that is transmitted as an autosomal dominant.

**P.'s nodes** Bony nodules on the skull of infants with congenital syphilis. Also called *Parrot's sign*.

**P.'s pseudoparalysis** Pseudoparalysis caused by syphilitic osteochondritis.

**P.'s sign** Parrot's nodes.

**P.'s ulcer** Lesions seen in thrush or stomatitis.

**parrot fever** (pär-rüt) Psittacosis.

**Parry's disease** (pär'ëz) [Caleb H. Parry, Brit. physician, 1755–1822] Hyperthyroidism.

**Parry-Romberg syndrome** (pär'ë rôm'bërg) Progressive hemifacial atrophy.

**pars** (pärz) *pl.* **partes** [L.] A part; portion of a larger structure.

**p. flaccida membranae tympani** The portion of the membrane of the eardrum that fills the notch of Rivinus. This portion of the drum is not taut. SYN: *Shrapnell's membrane*.

**p. interarticularis** The region between the superior and inferior articulating facets of a vertebra; the region where fracture frequently occurs with spondylolysis.

**p. squamosa ossis temporalis** The flat portion of the temporal bone that

forms part of the lateral wall of the skull.

**p. tensa membranae tympani** The larger portion of the tympanic membrane, a tightly stretched membrane lying inferior to the malleolar folds. SEE: *p. flaccida membranae tympani*.

**Parse, Rosemarie** (pär'së) A nursing educator who developed the Theory of Human Becoming and the Human Becoming School of Thought. SEE: *Nursing Theory Appendix*.

**Parsonage-Turner syndrome** Idiopathic brachial plexopathy.

**pars planitis** (pärz plā-nī'tis) Inflammation of the anterior chamber, the anterior vitreous, and/or the peripheral retina of the eye. It commonly causes floaters and blurring of vision. The disease may occur in childhood or adulthood. It is associated with autoimmune diseases such as multiple sclerosis or sarcoidosis and infectious diseases such as Lyme disease, syphilis, or tuberculosis. Treatments include treatment of the underlying illness and/or laser or cryotherapy. SYN: *intermediate uveitis*.

**part, presenting** (pärt) Before delivery, the fetal anatomical structure nearest the internal cervical os, identified by sonogram or palpation during vaginal examination. SEE: *presentation* for illness.

**partes** (pär'tës) Pl. of *pars*.

**parthenogenesis** (pär"thën-ô-jën'é-sis) [Gr. *parthenos*, virgin, + *genesis*, generation, birth] Reproduction arising from a female egg that has not been fertilized by the male; unisexual reproduction.

**participant observation** (pär-ti-si-pánt) A method of field research in which the investigator observes and records information about the characteristics of a setting through experience as a participant in that setting.

**participation** In the context of rehabilitation, a person's involvement in life situations despite physical impairments, activity limitations, or contextual factors, such as social or physical barriers in the environment. Participation in life activities, tasks, and roles is an aspect of living that is considered important within the framework of the World Health Organization's International Classification of Functioning, Disability, and Health (ICF). SEE: *International Classification of Functioning, Disability, and Health*.

**particle** (pär-tikl) [L. *particula*] **1.** A very small piece or part of matter; a tiny fragment or trace. **2.** One of several subatomic components of the nuclei of radioactive elements, such as alpha and beta particles. **3.** Attraction particle or centriole of the nucleus of a cell. **4.** Virion.

**alpha p.** A charged particle emitted

from a radioactive substance made up of a helium nucleus consisting of two protons and two electrons. The particle has very low penetrability, but an extremely high linear energy transfer.

**beta p.** Beta ray.

**Dane p.** SEE: *Dane particle*.

**elementary p.** The subatomic parts of the atomic nucleus.

**particle beam therapy** The use of heavy nuclear particles (e.g., protons, neutrons, or helium ions) to bombard and destroy diseased tissues, esp. cancers. SYN: *hadron therapy*.

**particulate** (pär-tik'ü-lät) Made up of particles.

**Partin coefficient table** A statistical tool that relies on prostate-specific antigen (PSA) levels and Gleason scores to predict whether a male with prostate cancer will have disease that has spread beyond the prostate gland.

**partner notification** A public health practice in which the sexual contacts of persons diagnosed with sexually transmitted diseases are made aware of their exposure and are advised to seek medical attention. Two methods are used to contact persons at risk. They may be notified directly by their sexual partner or partners, or they may be contacted by public health authorities who have obtained their names from their sexual partner or partners.

**parts per million** (pärts) ABBR: PPM; ppm. The concentration of a solute in a liquid or gas. For example, a pollutant such as soot may be said to be present in air at a level of 50 parts per million (parts of air). The units also may be expressed as weight of one substance to the weight of another or the volume of a fluid in the volume of another.

**parturient** (pär-tü-rē-ënt) [L. *parturiens*, in labor] Concerning childbirth or parturition; giving birth.

**parturifacient** (pär-tü-rī-fä'shënt) [ " + *facere*, to make] 1. Inducing or accelerating labor. 2. A drug used to cause or hasten delivery of the fetus.

**parturition** (pär-tü-rish'ün) [L. *parturition*] The act of giving birth to young. SYN: *childbirth*. SEE: *delivery*; *labor*.

**party** (pär'tē) A person or entity who acts as petitioner, plaintiff, or defendant in a legal action.

**parulis** (pä-roo'lis) [Gr. *para*, beside, + *oulon*, gum] Gumboil.

**paruresis** (pär'ü-rē'sis) [ " + " ] A social phobia characterized by an inhibition to urinate in the presence of others. It is also known as "shy kidney" or "shy bladder" syndrome.

**parvocellular** (pär'vō-sël'ü-lir) [L. *parvus*, small + " ] Having a small cell body. It is said esp. of cells found in the lateral geniculate nucleus of the thalamus.

**parvovirus** (pär'vō-vī'rüs) [ " + *virus*,

poison] A group of viruses similar to adeno-associated viruses. They are pathogenic in animals and humans.

**p. B19** SEE: *erythrovirus B19*.

**parvule** (pär'vül) [L. *parvulus*, very small] A small pill, pellet, or granule.

**PAS, PASA** *para-aminosalicylic acid*.

**pascal** (päs-käl') A unit of pressure equal to the force of one newton acting uniformly over 1 m<sup>2</sup>. SEE: *newton*; SI Units Appendix.

**Paschen bodies** (pä'shën) [Enrique Paschen, Ger. pathologist, 1860–1936] Intracellular particles of smallpox, visualized microscopically.

**PASG** *pneumatic anti-shock garment*. SEE: *MAST*.

**passage** (päs'äj) [ME., to pass] 1. A channel between cavities and body structures or with the external surface of an organ. 2. An evacuation of the bowels. 3. Introduction of a probe or catheter. 4. Incubation of a pathogenic organism, esp. a virus, in one or a series of tissue cultures or living organisms. 5. In cell biology, a cycle of cellular proliferation of cells maintained in culture.

**passion** (päsh'ün) [L. *passio*, suffering] 1. Suffering. 2. Great emotion or zeal.

**heat of p.** In forensic medicine, a state of mind that might influence one's propensity to commit violent or aggressive acts.

**passion flower** An herbal remedy from the American shrub or vine *Passiflora incarnata*, used primarily as a sedative or calming agent. Its effectiveness has not been systematically tested in human beings.

**passivation** (päs'ī-vā'shīn) [ " ] The stabilization and protection of a surface from outside influences, e.g., the treatment of an atherosclerotic plaque to keep it from rupturing or of a metal to keep it from corroding.

**passive** (päs'iv) [L. *passivus*, capable of suffering] 1. Not reacting or participating. 2. Secondhand; unintentional (e.g., passive smoking). 3. Submissive.

**passive smoking** The exposure of non-smokers to the toxic gases released by the burning of tobacco products in their homes, workplaces, or recreational environments. Exposure to environmental tobacco smoke has been linked to allergies, asthma, cardiovascular diseases, lung diseases, and stroke. Passive smoking causes about 30,000 deaths from heart disease and another 3,000 lung disease deaths annually in the U.S. SYN: *secondhand smoking*. SEE: *tobacco*.

**passivism** (päs'ī-vīzəm) [ " + Gr. *-ismos*, condition] 1. Passive behavior or character. 2. Sexual perversion with subjugation of the will to another.

**passivity** (päs-siv'ī-tē) [L. *passivus*, capable of suffering] 1. Dependence on



others. **2.** A reluctance to be self-determined or assertive.

**Pasteur, Louis** (pās-stūr') [Fr. chemist and bacteriologist, 1822–1895] Founder of microbiology. He developed the technique of eliminating bacteria from food products and produced the first vaccines.

**Pasteurella** (pās-tā-rēl'ă) [Louis Pasteur] A genus of gram-negative coccobacilli that causes disease in animals and humans. Pathogens once classed in this genus include *Yersinia pestis* (the microbe that causes plague) and *Francisella tularensis* (tularemia).

**P. multocida** A species found in the oral cavities of cats, dogs, and other animals. It may be transmitted to humans by animal bites, and may cause cellulitis, abscesses, osteomyelitis, pneumonia, peritonitis, or meningitis. Penicillins, doxycycline, or cephalosporins are used to treat the infection.

**pasteurellosis** (pās'tēr-ē-lō'sis) A disease caused by infection with bacteria of the genus *Pasteurella*.

**pasteurization** (pās'tūr-ī-zā'shūn) [Louis Pasteur] The process of heating a fluid at a moderate temperature for a definite period of time to destroy undesirable bacteria without changing to any extent the chemical composition of the fluid. In pasteurization of milk, pathogenic bacteria are destroyed by heating at 62°C for 30 min, or by "flash" heating to higher temperatures for less than 1 min. The pasteurization process, reducing total bacterial count of the milk by 97% to 99%, is effective because the common milk-borne pathogens (tubercle bacillus, and *Salmonella*, *Streptococcus*, and *Brucella* organisms) do not form spores and are quite sensitive to heat. SEE: *flash method*; *milk*.

**Pastia's lines** A characteristic physical finding in patients with scarlet fever, in which red or pink petechial lines appear in skin creases (e.g., in the skin in front of the elbow or the hip joint).

**pastille** (pās-tēl', -tīl') [L. *pastillus*, a little roll] **1.** A medicated disk used for local action on the mucosa of the throat and mouth. SYN: *lozenge*; *troche*. **2.** A small cone used to fumigate or scent the air of a room.

**past-pointing** (pāst-pōyn-tēng) The inability to place a finger or some other part of the body accurately on a selected point; seen esp. in cerebellar disorders.

**PAT** (pāt) *Paroxysmal atrial tachycardia*. The contemporary, and more accurate, term is paroxysmal supraventricular tachycardia (PSVT).

**patau syndrome** Trisomy 13.

**patch** (päch) [ME. *pacche*] **1.** A small circumscribed area distinct from the surrounding surface in character and appearance. **2.** A drug delivery system

that enhances the uptake of a medicine through the skin. **3.** Any substance or object used to repair a defect in the body.

**blood p.** A clot of a patient's blood placed over the dura to repair a cerebrospinal fluid leak that may be caused by a lumbar puncture, esp. one performed with a large-bore needle. It is used to treat post-lumbar puncture headache. SYN: *epidural blood patch*. SEE: *post-lumbar puncture headache*.

**cotton-wool p., cotton-wool spot** A fluffy looking lesion in the nerve fiber layer caused by infarction; usually seen in hypertension, diabetes, collagen vascular disease, or AIDS.

**epidural blood p.** Blood patch.

**herald p.** A solitary oval patch of scaly skin that appears several days before the generalized rash of pityriasis rosea.

**Hutchinson's p.** SEE: under *Hutchinson*, *Sir Jonathan*.

**mucous p.** A syphilitic eruption having an eroded, moist surface; usually on the mucous membrane of the mouth or external genitals, or on a surface subject to moisture and heat.

**Peyer's p.** SEE: *Peyer's patch*.

**salmon p.** An oval pale retinal hemorrhage seen in sickle cell disease. SEE: *Hutchinson's patch*.

**smoker's p.** Leukoplakia of the oral mucosa.

**white p.** A white, thickened area of oral mucosa that will not rub off and represents a benign hyperkeratosis. SEE: *leukoplakia*.

**patch test** A skin test in which a low concentration of a presumed allergen is applied to the skin beneath an occlusive dressing. The test is the primary method used to determine the presence of allergic contact dermatitis. If the concentration of the agent is too high or an allergy exists to the material used in the dressing, false-positive reactions can occur as a result of local irritation. False-negative reactions may result if the concentration of the suspected allergen is too low, or if the duration of the test is too short. Commercially available, standardized kits to facilitate patch testing include the T.R.U.E. test and Finn Chambers. SEE: *illus.*; *skin test*.

**patella** (pā-tēl'ă) *pl. patellae* [L., a small pan] A lens-shaped sesamoid bone situated in front of the knee in the tendon of the quadriceps femoris muscle. SYN: *kneecap*. SEE: *osteochondritis dissecans*.

**p. alta** A high-riding patella (high positioning of patella). When a person is standing, the patella rests in a more superior position than normal.

**p. baja** A low-riding patella (low positioning of patella). When a person is



APPLYING PATCH TEST

standing, the patella rests in a more inferior position than normal.

**bipartite p.** The developing patella that matures from two centers rather than one. This usually congenital condition causes no symptoms but may be mistaken for a fracture.

**dislocated p.** Displacement of the patella from its normal position in the femoral trochlea. Most patellar dislocations are marked by obvious deformity and occur laterally. They result in the tearing or stretching of the medial patellar retinaculum and the oblique fibers of the vastus medialis muscle. The patella may spontaneously reduce as the patient attempts to straighten the knee.

**floating p.** A patella that rides up from the condyles owing to a large effusion in the knee.

**fracture of p.** A break in the continuity of the kneecap. Treatment may consist of suturing the bone fragments. A long-leg immobilizer is applied for 6 to 8 weeks. Following removal of the brace, gradual exercise may be started and weight placed on the leg for a few weeks, after which the patient may walk.

**hypomobile p.** Excessive medial and/or lateral motion of the patella. A medially hypomobile patella can be moved greater than 75% of its width medially. A laterally hypomobile patella can be moved greater than 75% of its width laterally. SEE: *hypomobile p.*; *ap-prehension test*.

**ETIOLOGY:** Increased medial patellar hypermobility can result from laxity of the lateral patellar retinaculum. Lateral patellar hypermobility indicates laxity of the medial patellar retinaculum and/or weakness of the oblique fibers of the vastus medialis.

**SYMPTOMS:** Increased motion of the patella within the femur's trochlea can lead to chondromalacia patellae, pro-

ducing pain in weight-bearing activities, esp. squatting or climbing or descending stairs. Lateral patellar hypermobility is a predisposition to patellar dislocation or subluxation.

**TREATMENT:** Treatment and rehabilitation consists of strengthening the muscles on the side opposite the hypermobility. Neuromuscular re-education may be needed to restore the normal recruitment sequence of the oblique fibers of the vastus medialis and the vastus lateralis.

**hypomobile p.** Lack of normal medial and/or lateral motion of the patella. A medially hypomobile patella cannot be moved more than 25% of its width medially. A laterally hypomobile patella cannot be moved more than 15% of its width laterally. SEE: *hypomobile p.*

**ETIOLOGY:** Medial hypomobility often results from adhesions of the lateral patellar retinaculum or tightness of the iliotibial band. Lateral hypomobility can result from tightness of the medial patellar retinaculum or hypertrophy or spasm of the oblique fibers of the vastus medialis.

**SYMPTOMS:** The patient will complain of pain and demonstrate decreased strength during weight-bearing activities. Improper tracking of the patella as the result of hypomobility can lead to chondromalacia patellae.

**TREATMENT:** Physical agents such as moist heat and/or ultrasound and manual therapy techniques can be used to encourage the elasticity of the offending tissues. A surgical release of the patellar retinaculum may be required.

**rider's painful p.** Tenderness and pain in the patella from horseback riding.

**squinting p.** A disorder in which the patella appears to be pointing inward when the patient is standing; caused by excessive femoral anteversion.

**patellapexy** (pă-těl'ă-pĕk'sē) [L. *patella*, small pan, + Gr. *pexis*, fixation] Fixation of the patella to the lower end of the femur to stabilize the joint.

**patellar** (pă-těl'ăr) Concerning the patella.

**patellectomy** (pă'tĕl'ĕ-lĕk'tō-mē) [ + Gr. *ektome*, excision] Surgical removal of the patella.

**patelliform** (pă-těl'ĭ-form) [ + *forma*, shape] Shaped like the patella.

**patellofemoral** (pă-těl'ō-fĕm'ō-rāl) Concerning the patella and femur.

**patellofemoral pain syndrome** Pain in the knee that occurs with exertion (e.g., walking upstairs) and is associated with stiffness after prolonged sitting and tenderness when the patella is compressed on the femoral condyle or when it is moved laterally. SEE: *patellofemoral instability*.

**patency** (pā'těn-sē) [L. *patens*, open]

The state of being freely open.

**patent** (pāt'ěnt, pā'těnt) Wide open; evident; accessible.

**patent ductus arteriosus** Persistence, after birth, of a communication between the main pulmonary artery and the aorta. This condition in preterm infants has been treated successfully with drugs, such as indomethacin, that inhibit prostaglandin synthesis. SEE: *prostaglandin*.

**paternalism** (pā-tēr-nāl-izm) A type of medical decision making in which health care professionals exercise unilateral authority over patients. When patients are competent to make their own choices and health care professionals seek to act in the patients' best interests, shared decision making is preferable, because it encourages dialogue, preserves autonomy, fosters responsibility, and allows for adaptation.

**paternity test** (pā-tēr-nī-tē) A test to determine the father of a child. Because paternity is a clinical estimate, there is the need to have tests to determine whether it would be possible for an individual to have fathered a specific child. At one time, the tests used to prove or exclude the possibility of paternity used blood type data from the child and the suspected father. Tests involving the technique of molecular genetic fingerprinting and of determining genetic markers are available and have the ability to exclude almost all except the father. Use of these techniques makes it possible to distinguish differences between the genotype of all individuals except identical twins.

**path** (pāth) A particular course that is followed or traversed. SEE: *pathway*.

**circulation p.** SEE: *circulation path*.

**p. of closure** The path traversed by the mandible as it closes when its neuromuscular mechanisms are in a balanced functional state.

**condyle p.** The path traversed by the condyle during various mandibular movements.

**incisor p.** An arc described by the incisal edge of the lower incisors when the mandible closes to normal occlusion.

**p. of instantaneous center of rotation** ABBR: PICR. The plotted trajectory of the axis of rotation of a joint through its entire range of movement. The center of rotation moves due to translation, the accessory gliding or sliding motion that accompanies the rotation. The fact that this is instantaneous infers that the PICR is not constant, but changes with the moment.

**PATIENT CARE:** Deviation from the ideal PICR for any joint may result from muscle strength or length imbalance, internal joint derangement, or joint capsule restriction. These conditions may

occur because of previous joint surgery, scar tissue, traumatic injury, or simply from aging, and may affect the quality, quantity, efficiency, or pain of joint movement and gait mechanics. Physical therapists try to improve their patients' awareness of their center of gravity and of shifts that can throw this off balance by employing balance exercises and posture training. Correct patient positioning for bed or chair rest should be practiced by all health care providers, as asymmetry can affect the patient's comfort and lead to further joint concerns over time. An orthotist or prosthetist measuring and fitting a patient for any joint brace must consider the desired PICR, as the brace must allow the joint to move through full PICR. If proper joint movement is restricted, the device could lead to further pathology.

**path-** SEE: *patho-*.

**pathergy** (pāth'ēr-jē) [Gr. *pathos*, disease, suffering, + *ergon*, work] A skin reaction at the site of a sterile needle prick that results in a pustule and reddened skin. This reaction, which lasts 2 to 5 days, is a sign of skin hyperreactivity consistent with Behçet's syndrome.

**pathetic** (pā-thět'ik) [L. *patheticus*]

**1.** Pert. to, or arousing, the emotions of pity, sympathy, or tenderness. **2.** Pert. to the trochlear nerve.

**pathfinder** (pāth-fin-dēr) [AS. *paeth*, road, + *findan*, to locate] **1.** An instrument for locating stricture of the urethra. **2.** A dental instrument for tracing the course of root canals.

**patho-, path-** [Gr. *pathos*, disease, suffering] Combining form meaning *disease*. SEE: *-pathy*.

**pathoanatomy** (pāth'ō-ā-nāt'ō-mē) Anatomic pathology.

**pathobiology** (pāth'ō-bī-ōl'ō-jē) Pathology.

**pathodontia** (pāth'ō-dōn'shē-ā) [ + *odous* tooth] The science of dental pathology.

**pathogen** (pāth'ō-jěn) [ + *gennan*, to produce] A microorganism capable of producing a disease.

**bloodborne p.** A pathogen present in blood that can be transmitted to an individual who is exposed to the blood or body fluids of an infected individual. Three common bloodborne pathogens are hepatitis C, hepatitis B, and human immunodeficiency virus 1 (HIV-1). SEE: *hepatitis B*; *human immunodeficiency virus*; *Standard Precautions Appendix*.

**opportunistic p.** A microorganism that is usually harmless but may become pathogenic in certain circumstances, e.g., when it is introduced into a part of the body where it normally does not reside or when it infects an immunocompromised host.

**pathogen-associated molecular patterns**

ABBR: PAMP. Any of several molecular sequences associated with or found in many different disease-causing microorganisms to which the innate immune system reacts without initiating an antigen-antibody response. Examples of pathogen-associated molecular patterns are

1. bacterial DNA,
2. lipoteichoic acids found in the cell walls of gram-positive bacteria,
3. lipopolysaccharides found in the cell walls of gram-negative bacteria, and
4. sugars like glucans or mannose, found in fungi or bacteria, respectively, but not in mammalian cells.

**pathogenesis** (pāth'ō-jěn'ē-sis) The origin and development of a disease. SYN: *pathogeny*.

**bacterial p.** The development of a bacterial disease. There are three stages: entry and colonization in the host, bacterial invasion and reproduction with the production of toxic substances, and the response of the host. The mere presence of an organism in the body does not necessarily mean that disease will follow. This progression of the infection will depend upon a number of interacting factors, including the virulence and number of invading organisms and the ability of the host's immune system to destroy the bacteria.

**pathogenetic, pathogenic** (pāth'ō-jěn-ēt'ik, -jěn'ik) Productive of disease. SYN: *morbific*.

**pathogenicity** (pāth'ō-jē-nīs'ī-tē) [*n* + *gennan*, to produce] The state of producing or being able to produce pathological changes and disease.

**pathogen-reduced plasma** Plasma that has been treated with detergents, methylene blue, or ultraviolet energy in order to reduce the likelihood that it will transmit infection during transfusion.

**pathogeny** (pāth-ōj'ēn-ē) Pathogenesis.

**pathognomonic** (pāth'ōg-nō-mōn'ik) [Gr. *pathognomonikos*, skilled in diagnosing] Indicative of a disease, esp. its characteristic symptoms.

**pathognomy** (pāth-ōg'nō-mē) [Gr. *pathos*, disease, suffering, + *gnome*, a means of knowing] Diagnosing the cause of an illness after careful study of the signs and symptoms of a disease.

**pathologic, pathological** (pāth-ō-lōj'ik, -j-kāl) [Gr. *pathos*, disease, suffering, + *logos*, word, reason] 1. Concerning pathology. 2. Diseased; due to a disease. SYN: *morbid*.

**pathologist** (pā-thōl'ō-jist) [*n* + *logos*, word, reason] A medical professional trained to examine tissues, cells, and specimens of body fluids for evidence of disease.

**pathology** (pā-thōl'ō-jē) [Gr. *pathos*, disease, suffering, + *logos*, word, reason] 1. The study of the nature and cause of

disease, which involves changes in structure and function. 2. A condition produced by disease.

**anatomic p.** The field of pathology that deals with structural changes in disease.

**cellular p.** Pathology based on microscopic changes in body cells produced by disease.

**chemical p.** The study of chemical changes that occur in disease.

**clinical p.** Pathology that uses clinical analysis and other laboratory procedures in the diagnosis and treatment of disease.

**comparative p.** The study of the distinctions between human diseases and the diseases that affect other animals, or plants.

**dental p.** The science of diseases of the mouth. SYN: *oral pathology*.

**experimental p.** The study of diseases induced artificially and intentionally, esp. in animals.

**functional p.** The study of alterations of functions that occur in disease processes without associated structural changes.

**geographical p.** Pathology in its relationship to climate and geography.

**humoral p.** Pathology of the fluids of the body.

**medical p.** Pathology of disorders that are not accessible for surgical procedures.

**molecular p.** The study of the pathological effects of specific molecules.

**oral p.** Dental p.

**special p.** Pathology of particular diseases or organs.

**surgical p.** The application of pathological procedures and techniques for investigating tissues removed surgically.

**pathomechanics** (pāth'ō-mī-kān'ī-ks)

Changes in the normal biomechanical function of a joint, an extremity, or the torso as the result of trauma or disease. SEE: *biomechanics*.

**pathomimesis** (pāth'ō-mīm-ē'sis) [Gr. *pathos*, disease, suffering, + *mimesis*, imitation] Intentional (conscious or unconscious) imitation of a disease. SYN: *pathomimicry*.

**pathomimicry** (pāth'ō-mīm'ī-krē) Pathomimesis.

**pathophysiology** (pāth'ō-fiz'ē-ōl'ō-jē) [*n* + *physis*, nature, + *logos*, word, reason] The study of how normal physiological processes are altered by disease.

**pathopsychology** (pāth'ō-sī-kōl'ō-jē) [*n* + *psyche*, soul, + *logos*, word, reason] The branch of psychology dealing with mental processes during disease.

**pathotype** (pāth'ō-tīp) [Gr. *pathos*, disease, + *typos*, type] A disease-causing variant of a microorganism. It is distinguishable from other members of its

species by its virulence and by unique molecular markers.

**pathway** (pāth-wā) **1.** A path or a course; e.g., a pathway formed by neurons (cell bodies and their processes) over which impulses pass from their point of origin to their destination. **2.** A metabolic sequence; a predictable series of chemical reactions, such as those of cellular respiration. **3.** A course of study or a means to attain professional certification.

**afferent p.** A sensory pathway from a receptor to the central nervous system.

**biosynthetic p.** The chemical and metabolic events that lead to the formation of substances in the body.

**central p.** An axon tract within the brain or spinal cord.

**clinical p.** A method used in health care as a way of organizing, evaluating, and limiting variations in patient care. Development of a clinical pathway usually begins with establishment of a multidisciplinary committee that examines data to determine which patients will benefit most. Usually, diagnoses that involve costly or complex care (e.g., multidisciplinary care) or common illnesses are selected for study. The following aspects of care are evaluated: consultations and assessments, tests and treatments, nutrition and medications, activity and safety, and teaching and discharge planning. Clinical pathways address timelines, actions, and outcomes, and ensure that essential components of care are provided.

Agencies using clinical pathways report the following advantages: reduced length of stay for patients in given diagnosis-related groups (DRGs); greater accountability for patient care; greater patient and family satisfaction; enhanced staff and physician satisfaction and communication; an improved and integrated process for care delivery; minimal prejudices and elitism between departments; lower patient charges and costs; and less time spent on documentation. SYN: *care map*.

**complement alternative p.** A complement cascade initiated by a foreign protein, usually a bacterium. SEE: *complement*.

**complement classic p.** A complement cascade initiated by an antibody-antigen reaction that activates complement factor 1 (C1). SEE: *complement*.

**conduction p.** A group of fibers in the heart, nerves, spinal cord, or brain that conduct impulses that trigger responses in the same or other tissues.

**critical p.** Clinical p.

**effluent p.** A pathway from the central nervous system to an effector.

**Emden-Meyerhof p.** SEE: *Emden-Meyerhof pathway*.

**fifth p.** A form of postgraduate medical education, in which graduates of international medical training programs undergo supervised clinical clerkships in the U.S. to complete their residency training.

**p. of incidence** The path of a penetrating foreign object from the point of entry into the body to the point where it stops (e.g., the path of a bullet from where it enters the body to where it lodges).

**metabolic p.** The sequence of chemical reactions that occur as a substance is metabolized.

**motor p.** A pathway over which motor impulses are carried from the central nervous system to muscles or glands.

**pentose phosphate p.** The pathway of glucose metabolism in tissues during which five-carbon sugars are formed.

**sensory p.** A pathway over which sensory impulses are conveyed from sense organs or receptors to sensory or reflex centers of the spinal cord or brain.

**-pathy** Combining form indicating *disease*.

**patient** (pā'shēnt) [L. *patiens*] **1.** One who is sick with, or being treated for, an illness or injury. **2.** An individual receiving medical care. SEE: table.

**p. advocate** A person who ensures that a patient is served adequately by the health care system.

**p. autonomy** The right of an informed patient to choose to accept or to refuse therapy. SEE: *advance directive*; *informed consent*; *living will*; *quality of life*.

**p. day** The basic time unit for calculating the cost of keeping a patient in a hospital for 1 day.

**p. delay** Delay on the part of the patient in seeking medical attention or in taking prescribed medicines or advice.

**p. mix** The numbers and types of patients served by a hospital or other health program.

**surrogate p.** A normal, healthy individual who is employed to be examined and perhaps interviewed by health-care students. The purpose is to provide students with the opportunity to examine an individual in a less stressful setting than would be the case if the person being examined were indeed sick. This also prevents persons who are ill from being subjected to multiple examinations by students. In some cases, the surrogate patient is an actor who has been instructed to pretend to be sick, injured, disabled, or hostile. SEE: table.

**Patient Advise and Consent Encounter** ABBR: PACE. An interactive computer program to assist a patient to understand certain medical and surgical procedures and their risks. The program



### A Patient's Perception of Quality Health Care

Quality Indicator	The Patient's Viewpoint
Access	Scheduling a visit with my health care provider was easy and convenient.
Attentiveness	My concerns were heard, and my needs were anticipated and addressed.
Availability of primary care	I saw someone who knows me personally.
Availability of specialty care	I saw someone who is skilled in managing my specific problems.
Communication	I was able to contact my health care providers easily. We were able to talk to each other simply and directly. I was told what to expect during my care.
Continuity	Follow-up care was easy to arrange with professionals I already know.
Cost	My care was affordable and was worth its cost.
Craftsmanship	I was carefully examined, and my treatment was technically competent.
Dignity	I was treated with respect.
Hygiene	The facilities where I received care were spotless.
Outcome	Things turned out well. (If things did not turn out well, problems were anticipated and explained to me in advance.)
Time management	I was not left waiting for long. My health care providers respected my schedule.

uses touch-screen technology, animation, and an actor-doctor narrator to communicate with the patient. At the end of each program, the patient may take an interactive quiz that evaluates understanding of the presentation. A printout of the entire session is available for the patient and the physician.

**patient advocate** An individual, such as an attorney, friend, nurse, ombudsman, physician, or social worker, who pleads for and preserves a patient's rights to health care. Patient advocates address many common and important health care issues, including the right to access a health care provider, the right to obtain confidential care, and the right for the patient to work after diagnosis or treatment.

**Patient's Bill of Rights** A declaration of the entitlements of hospital patients, compiled by the American Hospital Association. First published in 1973, it emphasizes the responsibilities of hospitals and patients and the need for communication and collaboration between them. The patient is entitled to consideration and respect while receiving care; accurate, understandable information about the condition and treatment; privacy and confidentiality; an appropriate response to the request for treatment; and continued care as necessary after leaving the hospital. The patient may also have an advance directive regarding treatment; designate a surrogate to make decisions; review his or her medical records; be informed of hospital policies or business relationships that may affect care; and agree or

refuse to participate in treatments or research studies. Patient responsibilities include providing any information (e.g., an advance directive) that may influence treatment; providing the needed information for insurance claims; and understanding how lifestyle affects health. The full text of the Patient's Bill of Rights is available from the American Hospital Association, One North Franklin, Chicago, IL 60606, phone number: 312-422-3000.

**patient care data set** ABBR: PCDS. A terminology data set recognized by the American Nurses Association and developed by Dr. Judith Ozbolt primarily for use in the acute care arena. The data set includes terms and codes for patient problems, therapeutic goals, and patient care orders.

**patient circuit** The artificial conduit that relays gases between a mechanical ventilator and a patient.

**patient compensation fund** A governmentally administered account used as a treasury from which disbursements are made to those injured as a result of incompetence or malpractice by health care providers.

**patient concern** A complaint or grievance raised by a patient (or a personal representative of a patient) about care rendered to him or her.

**patient education** Health information and instruction to help patients learn about specific or general medical topics, such as the need for preventive services, the adoption of healthy lifestyles, the correct use of medications, or the care of diseases or injuries at home.

**patient management** A description of the interaction, from intake to discharge, between the patient and the health care team. It includes communication, empathy, examination, evaluation, diagnosis, prognosis, and intervention. The last element, intervention (or treatment), depends on the others.

**patient outcomes research team** ABBR: PORT. Those involved in investigating the results of disease interventions and comparing the benefit or lack of benefit of various therapeutic measures.

**patient return electrode** In electrosurgery, an electrode that collects the current used to operate on the patient and returns it to a current generator.

**Patient Self-Determination Act** ABBR: PSDA. A 1991 act of the U.S. Congress that preserves individual rights to decisions related to personal survival. There are several methods for preserving autonomy: filing appropriate forms for durable power of attorney for health care, making a living will, or giving a directive to the physician.

**patients' rights** Those culturally and legally specified rights, claims, powers, privileges, and remedies due to a person receiving health care services. They include, but are not limited to, the following:

1. access to care;
2. aftercare assistance or aid;
3. an appeals process when one has a grievance;
4. choice in the selection of one's health care providers;
5. confidentiality and privacy;
6. freedom from discrimination;
7. information;
8. respectful treatment;
9. safety;
10. shared decision making; and
11. respect for patient preferences and wishes.

**patient transporter** Someone who conveys patients from one health care location to another.

**patient-ventilator interaction** The complex link between a patient's neurologically mediated control of breathing (and the elasticity and resistance of his or her airways) and the pressures and volumes of gases injected into the patient by a mechanical ventilator. Failure of these two systems to work harmoniously is called patient-ventilator dyssynchrony.

**patient-year** A patient experience of 1 year's duration, e.g., on a waiting list, in a treatment program, under observation, or suffering an illness. One patient-year is equal to, for example, the experience of two patients for 6 months, or 12 patients for 1 month each.

**patricide** (păt'ri-sīd) [L. *patricida*] Murder of one's father or another close relative.

**Patrick's test** (păt'riks) [Hugh Talbot Patrick, U.S. neurologist, 1860–1939] A test for arthritis of the hip. The thigh and knee of the supine patient are flexed, and the external malleolus of the ankle is placed over the patella of the opposite leg. The test result is positive if depression of the knee produces pain. This test is also called the fabere test. "FABERE" is a mnemonic for the position the hip assumes during this test: *F*lexion, *A*Bduction, *E*xternal Rotation, and *E*xtension. SYN: *FABERE maneuver*.

**patrilineal** (păt-rē-līn'ē-äl) [L. *pater*, father, + *linea*, line] Tracing descent through the father.

**pattern** (păt-tērñ) 1. A design, figure, model, or example. 2. In psychology, a set or arrangement of ideas or behavior reactions. Particular patterns are listed under the first word. SEE: e.g., *functional health pattern*; *synergy patterns*; *wear pattern*.

**patterning** (păt-tērñ-ēng) A therapeutic method used in treating children and adults with brain damage. The patient is guided through movements such as creeping or crawling, based on the theory that undamaged sections of the brain will develop the ability to perform these functions.

**pattern recognition receptor** ABBR: PRR. Any receptor on an antigen-presenting cell of the immune system that recognizes molecular sequences found on disease-causing organisms but not host cells. Pattern recognition receptors detect the presence of pathogen-associated chemicals such as lipopolysaccharides, mannans, and teichoic acids.

**patulous** (păt'ū-lūs) [L. *patulus*] Patent.

**pauciarticular** (pāw-sē-är-tīk'ū-lār) A classification of juvenile rheumatoid arthritis that indicates that four or fewer joints are affected at the time of onset of the disease.

**Pau d'Arco** (pow dār'koo) [Portuguese] The inner bark of the *Tabebuia avellanedae*, an evergreen tree of the rain forests of Central and South America. It is marketed as a tea that is promoted as a treatment for cancer, fungal diseases, inflammation, and pain.

**pause** (pāwz) [ME.] An interruption; a temporary cessation of activity.

**compensatory p.** The long interval following a premature ventricular contraction, so called because it does not disturb the normal sinus pacing of the heart.

**noncompensatory p.** The interval on the electrocardiogram that follows a premature atrial contraction (PAC). Because PACs reset the sinus pacemaker, the next sinus beat does not appear when it would have if there had been no extra beat.

- sinus p.** An interruption in the normal pacemaking function of the sinus (sinoatrial) node of the heart, resulting in a decrease in the number of heartbeats per minute. When sinus pauses are rare, the condition may be asymptomatic. When they occur frequently, patients may note palpitations or experience loss of consciousness.
- Pautrier microabscess** (pō-trē-ā') A local collection of malignant lymphocytes. It is found on microscopic examination of biopsies taken from patients with cutaneous T cell lymphoma.
- Pavlik harness** (pōv'lik) A device used to stabilize the hip in neonates with congenital hip dislocation.
- Pavlov, Ivan Petrovich** (pāv'lōv) Russian physiologist, 1849–1936; winner of Nobel Prize in medicine in 1904. He is remembered particularly for his work on conditioning. SEE: *reflex, conditioned*.
- pavor** (pā'vor) [L.] Anxiety, dread.
- p. diurnus** Attacks of terror or fright during the day, esp. in children.
- p. nocturnus** A night terror; a nightmare.
- PAWP** *pulmonary artery wedge pressure*.
- Paxil, Paxil CR** SEE: *paroxetine*.
- pay for performance** ABBR: PFP, or, P4P. The use of specific indicators of health care efficiency or quality to increase or decrease the funds paid to health care providers for the services they render.
- Pb** [L. *plumbum*] Symbol for the element lead.
- P.B.** *Pharmacopoeia Britannica*, British pharmacopeia.
- PBI** *protein-bound iodine*.
- Pbto2** The partial pressure of oxygen in brain tissue, measured with a probe placed in the central nervous system.
- P.B.W.** *posterior bitewing* in dentistry.
- PBZ** *pyribenzamine*.
- p.c.** L. *post cibum*, after a meal.
- PCG** *phonocardiogram*.
- pCi** *picocurie*.
- PCO<sub>2</sub>** Symbol for *partial pressure of carbon dioxide*.
- PCP** *phencyclidine hydrochloride*; *Pneumocystis carinii pneumonia*; *primary care physician*.
- PCR** *polymerase chain reaction*; *prehospital care report*.
- PC-SPES** (pē-sē-spēs') A mixture of herbs (chrysanthemum, *Ganoderma lucidum*, isatis, licorice, *Panax pseudoginseng*, *Rabdosia rubescens*, saw palmetto, and scutellaria) with estrogen-like effects. The mixture was formerly promoted as an alternative therapy for prostate cancer. It has been taken off the market in the U.S. because of contamination and adulteration with pharmaceuticals.
- PCV** *packed cell volume*.
- PCWP** *pulmonary capillary wedge pressure*.
- Pd** Symbol for the element palladium.
- p.d.** *prism diopter*; *pupilla diameter*; *pupillary distance*.
- PDA** *patent ductus arteriosus*; *personal digital assistant*.
- PDR** *Physicians' Desk Reference*.
- PEA** *phenylethylamine*; *pulseless electrical activity*.
- Peabody Developmental Motor Scales** (pē'bōd'ē, pē'bi-dē") ABBR: PDMS. A standardized performance test of gross and fine motor development for infants and children. The PDMS is suitable for newborns, infants, and children up to 6 years of age. Subtests include reflexes, stationary, locomotion, object manipulation, grasping, and visual-motor manipulation.
- peak and trough** The highest and lowest concentrations of a drug in plasma. Measurement of peak and trough drug levels are used to determine whether an intravenously administered medication is consistently within therapeutic range. The trough is drawn just before a drug is scheduled to be given; the peak is drawn after the drug is administered (30 to 60 min after infusion). These measurements may guide therapy in the use of potentially toxic medications, e.g., aminoglycosides, which can have serious adverse effects if therapeutic levels are exceeded or can fail to work effectively if adequate drug levels are not attained.
- peanut** (pē'nūt") An oily herb of the legume family, *Arachis hypogaea*, whose seeds are consumed for their nutritional value and whose oil, derived from the seeds, is used in cooking.
- pearl** (pīrl) [ME. *perle*] 1. A small, tough mass in the sputum in asthma. 2. A small capsule containing a medicinal fluid for inhalation. The capsule is crushed in a handkerchief and inhaled. 3. A small mass of cells. 4. A concise, memorable, and informative idea about patient care gained from clinical experience.
- enamel p.** Small rounded globules of highly mineralized material seen near or attached to the enamel margin or furcation of the tooth roots. These are formed by aberrant ameloblasts and hypermineralization.
- epithelial p.** Concentric squamous epithelial cells in carcinoma.
- gouty p.** Tophus (1).
- Pearl index** (pūrl) A measure of the reliability of any birth control method. A Pearl index of 1.0 signifies that if 100 women use a particular contraceptive method for 1 year, only one of them will become pregnant. The most effective contraceptive methods have Pearl indexes of about 0.7.
- peau d'orange** (pō'dō-rānj') [Fr., orange skin] Dimpling, pitting, and swelling,

seen in inflamed skin (e.g., in acne rosacea) or in the skin that overlies inflammatory carcinoma of the breast.

**peccant** (pĕk'ănt) [L. *peccans*, sinning]

1. Corrupt; producing disease. 2. Sinning, or violating a law.

**pecilo-** SEE: *poikilo-*.

**pecten** (pĕk'tĕn) *pl. pectines* [L., comb]

1. A comblike organ. 2. Pubic bone.

3. The middle portion of the anal canal.  
**p. pubis** A sharp ridge on the superior ramus of the pubis that forms the pubic portion of the terminal (iliopectineal) line.

**pectic acid** (pĕk'tĭk) [Gr. *pektos*, congealed] An acid, C<sub>17</sub>H<sub>24</sub>O<sub>16</sub> derived from pectin by hydrolyzing its methyl ester group.

**pectin** (pĕk'tĭn) [Gr. *pektos*, congealed]

Water-soluble carbohydrate polymers, found in ripe fruits, such as the apple, grape, peach, or plum. Pectins are colloids; they form gels in solution. They are used to make jams, jellies, and some medications.

**pectinase** (pĕk'tĭ-nās) An enzyme that catalyzes the formation of sugars and galacturonic acid from pectin.

**pectinate** (pĕk'tĭ-nāt) [L. *pecten*, comb] Having teeth like a comb.

**pectineal** (pĕk-tĭn'ĕ-ăl) Relating to the pubic bone or the pectineal muscle.

**pectineus** (pĕk-tĭn'ĕ'ūs) [L. *pecten*, comb] A flat quadrangular muscle at the upper and inner part of the thigh, arising from the superior ramus of pubis and inserted between the lesser trochanter and linea aspera of the femur, which flexes and adducts the thigh.

**pectization** (pĕk-tĭ-ză'shŭn) [Gr. *pektos*, congealed] In colloidal chemistry, the conversion of a substance from sol to gel state.

**pector-, pectoro-** Combining forms meaning *chest*.

**pectora** (pĕk'tor-ă) [L.] Pl. of pectus.

**pectoral** (pĕk'tō-răl) [L. *pectoralis*]

1. Concerning the chest. 2. Efficacious in relieving chest conditions, as a cough.

**pectoralis** (pĕk'tō-ră'lis) [L.] 1. Pert. to the chest. 2. Any of the two overlapping muscles on each side of the anterior upper portion of the chest.

**p. major** A large triangular muscle that extends from the sternum to the humerus and functions to flex, horizontally adduct, and internally rotate the arm, and aids in chest expansion when the upper extremities are stabilized.

**p. minor** A muscle beneath the pectoralis major, attached to the coracoid process of the scapula that depresses as well as causes anterior tipping of the scapula.

**pectoriloquy** (pĕk'tō-rĭl'ō-kwĕ) [L. *pectoralis*, chest, + *loqui*, to speak] The distinct transmission of vocal sounds during auscultation of the chest with a

stethoscope. The words seem to emanate from the spot that is auscultated. Pectoriloquy is heard over cavities that communicate with a bronchus and areas of consolidation near a large bronchus, over pneumothorax when the opening in the lung is patulous, and over some pleural effusions. SYN: *pectorophony*. SEE: *chest*.

**pectorophony** (pĕk'tō-rŏf'ō-nĕ) [" + Gr. *phone*, voice] Pectoriloquy.

**pectose** (pĕk'tōs) [Gr. *pektos*, congealed] A substance found in some fruits and vegetables. It yields pectin when boiled.

**pectus** (pĕk'tŭs) *pl. pectora* [L.] The chest.

**p. carinatum** Pigeon breast.

**p. excavatum** A congenital condition in which the sternum is abnormally depressed. SYN: *funnel breast*; *pectus recurvatum*.

**p. recurvatum** Pectus excavatum.

**ped-** SEE: *pedo-*.

**pedagogy** (pĕd'ŭ-gŏj'ĕ, -gŏj'ĕ) [Gr. *paidagogos*, an assistant who takes children to school] The art, sciences, techniques, and professional methods used in teaching, especially the teaching of school-age children.

**pedal** (pĕd'l) [L. *pedalis*] Concerning the foot.

**pedal spasm** Involuntary contractions of the muscles of the feet.

**pedatroph** (pĕ-dăt'rŏ-fĕ) [Gr. *pais*, child, + *atrophia*, want of nourishment] 1. Marasmus. 2. Any wasting disease in children. 3. Gastrointestinal tuberculosis.

**pederast** (pĕd'ĕr-ăst) [Gr. *paiderastes*, a lover of boys] A man who indulges in anal intercourse with young boys.

**pederasty** (pĕd'ĕr-ăst'tĕ) Anal intercourse between a man and a young boy.

**pedi-** SEE: *pedo-*.

**pedia-** [Gr. *pais*, child] Combining form denoting *child*.

**pediatric** (pĕ-dĕ-ăt'rĭk) [Gr. *pais*, child, + *iatreia*, treatment] Concerning the treatment of children.

**pediatric advanced life support** ABBR: PALS. The treatment measures, including basic and advanced life support, needed to stabilize a critically ill or injured child.

**pediatric autoimmune neuropsychiatric disorder associated with streptococci** ABBR: PANDAS. Any of the childhood behavioral disorders (esp. tic disorders, Tourette's syndrome, and obsessive-compulsive disorder) that begin before puberty and are associated with and worsened by group A beta-hemolytic streptococcal infections (e.g., strep throat or scarlet fever). Researchers suspect that an autoimmune response to the infection is responsible for the syndrome.

**pediatrician** (pĕ-dĕ-ăt'rĭsh'ăn) [" + *ia-*

*trikos*, healing] A specialist in children's diseases.

**pediatrics** (pē-dē-ăt' rīks) [Gr. *pais*, child, + *iatreia*, treatment] The care of children and the treatment of their diseases. SEE: *mortality* for table.

**pediatric trauma score** ABBR: PTS. A method for scoring and quantifying the severity of trauma in pediatric patients. SYN: *revised trauma score*.

**pedicel** (pēd'ī-sēl) **1.** Foot process or footplate. **2.** A secondary process of a podocyte that in conjunction with other podocytes forms the inner layer of Bowman's capsule of a renal corpuscle.

**pedicellation** (pēd'ī-sēl-ā'shūn) [L. *pediculus*, a little foot; stalk] The formation and development of a pedicle.

**pedicle** (pēd'ī-k'l) **1.** The stem that attaches a new growth. SYN: *peduncle* (1). **2.** The bony process that projects backward from the body of a vertebra, connecting with the lamina on each side. It forms the root of the vertebral arch.

**pedicle screw** A rigid surgical implant used to stabilize adjacent spinal segments in spinal fusion surgery. Pedicle screws have been used to treat spinal disorders, including those caused by spinal cancer, congenital anomalies, trauma, and chronic pain syndromes. Potential complications may include increased pain, infection, or mechanical failure (breakage of the screws or the rods that connect them).

**pedicular** (pē-dīk'ū-lar) [L. *pediculus*, a louse] Infested with or concerning lice.

**pedicular** (pē-dīk'ū-lar) [L. *pediculus*, a little foot] Concerning a stalk or stem.

**pediculate** (pē-dīk'ū-lāt) [L. *pediculus*, a little foot] Pedunculate.

**pediculation** (pē-dīk'ū-lā'shūn) [L. *pediculationis*] **1.** Infestation with lice. **2.** Development of a pedicle.

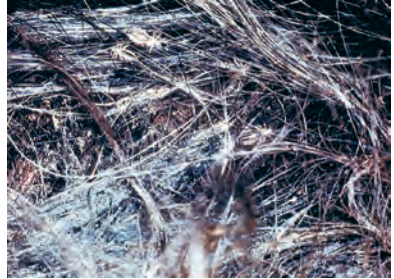
**pediculicide** (pē-dīk'ū-lī-sīd) [L. *pediculus*, a louse, + *caedere*, to kill] Destroying, or that which destroys, lice.

**Pediculidae** (pēd'ū-kūl'ī-dē") A family of lice belonging to the order Anoplura. It includes the species parasitic on primates, including humans. SEE: *Pediculus*.

**pediculosis** (pē-dīk'ū-lō'sīs) [" + Gr. *osis*, condition] Infestation with lice. SEE: *Pediculus*.

**p. capitis** A scalp infection caused by head lice, *Pediculus humanus capitis*, a common parasite in children. Outbreaks are common in schools, esp. among children between the ages of 5 and 11. The infection is transmitted through use of personal items such as hair ornaments, combs, hairbrushes, hats, scarves, or coats or through direct contact between the heads of two children. Lice, which feed on blood obtained by biting the skin, cause itching, esp. around the ears, in the occipital area, and at the nape of the neck. Long-standing

infestations may produce chronic inflammation. The adult louse is seen rarely; diagnosis usually is made through the presence of eggs (nits), which appear as whitish sacs attached to the hair. SEE: *illius*.



#### PEDICULOSIS CAPITIS

**SYMPTOMS:** Itching and eczematous dermatitis. In long-standing, neglected cases, scratching may result in marked inflammation. Secondary infection by bacteria may occur, with formation of pustules, crusts, and suppuration. Hair may become matted and malodorous.

**TREATMENT:** Therapies for lice infestations are modified frequently, to match the resistance of lice to current therapies and to minimize the toxicities of medications. Manual removal of lice always is appropriate and is strongly recommended by lice specialists. Others recommend the use of insecticides (pediculocides).

**PATIENT CARE:** The patient and family are taught how to apply medication (lindane, permethrin, pyrethrins, piperonyl butoxide, malathion) to dry hair for lice and are warned that the eyes should be immediately flushed with copious amounts of water if the medication accidentally contacts them. They are informed about minimizing the spread of infection by washing or dry cleaning all clothing and linen used in the home, delousing of rugs and upholstered furniture with sprays or vacuuming, keeping combs and brushes separate, and using medicinal shampoos if there has been contact with the patient.

**p. corporis** Pediculosis caused by the body louse, *Pediculus humanus*. It is transmitted by direct contact or by wearing infested clothing and is often transmitted in crowded or unhygienic conditions. The body louse occasionally is the vector for several important transmissible illnesses, including epidemic typhus, trench fever, and relapsing fever.

**SYMPTOMS:** Infestation with body lice is marked by intense itching, esp. on the neck, trunk, and thighs. Tiny hemorrhagic points identify the bites. Generalized excoriation, mild fever, and fa-



tigue characterize heavy infestations. In severe cases, pustules may develop.

**TREATMENT:** The patient first bathes with hot soap and water and then applies prescribed creams containing approved pesticides to affected areas.

**PATIENT CARE:** The patient should be assessed for diseases that body lice may transmit. If the patient is homeless or impoverished, social services agencies should be contacted to assist him or her to find shelter and clean clothing. If the patient lives with others, close personal contacts or family members should be screened for lice. All clothing, furniture, rugs, and bedding must be washed with hot water or dry cleaned. To prevent transmission of pediculosis among hospitalized patients, all high-risk patients should be examined for evidence of hair or body lice infestation on admission. Health care professionals should be careful to include older adults who are dependent on others for care, those coming from nursing homes or other assisted living facilities, and people living in crowded conditions.

**p. palpebrarum** Infestation by lice of the eyebrows and eyelashes.

**p. pubis** Pediculosis caused by *Phthirus pubis*, also known as crab lice. It is transmitted by direct contact and through bedding or shared towels. The pubic louse can also infest the axillae, eyelashes, and head hair. The patient can present with pruritus. On occasion visual identification of the lice may be seen in pubic hair as oval attachments on pubic hair shafts, black dots (feces) on skin and underwear, or crusts or scabs in pubic area from scratching. Treatment is the same as for other ectoparasitic (skin parasite) infestations.

**pediculosis** (pē-dīk'ū-lūs) Infested with lice.

**Pediculus** (pē-dīk'ū-lūs) A genus of parasitic insects, commonly called lice, that infest humans and other primates. Lice are sucking insects belonging to the family Pediculidae, order Anoplura. They transmit the causative organisms of epidemic typhus, trench fever, and relapsing fever to animal hosts.

**P. humanus capitis** The head louse that lives in the fine hair of the head, including the beard and eyebrows. Its eggs, commonly called nits, may be found glued to hairs. They form nests in the vicinity of the ears. This organism is the cause of pediculosis capitis.

**P. humanus corporis** The body louse that inhabits the seams of clothing worn next to the body and feeds on regions of the body covered by that clothing. Eggs are attached to fibers of the clothing. This organism causes human illnesses including pediculosis corporis and trench fever.

**pediculus** (pē-dīk'ū-lūs) *pl.* **pediculi** [L.] 1. A little foot. 2. Louse. SEE: *Pediculus*.

**pedicure** (pēd'ī-kūr) [L. *pes*, foot, + *cura*, care] 1. Care of the feet. 2. Cosmetic care of the feet and toenails. 3. Podiatrist.

**pediform** (pēd'ī-form) [f' + *forma*, shape] Having the shape of a foot.

**pedigree** (pē-dī-grē) A chart, diagram, or table of an individual's ancestors used in genetics to analyze or reveal inherited traits and illnesses.

**pedo-, pedi-, ped-** [L. *pes*, foot] Combining form meaning *foot*.

**pedodontia, pedodontics** (pē'dō-dōn'shē-ā, -tīks) [Gr. *pais*, child, + *odous*, tooth] The branch of dentistry that includes training the child to accept dentistry; restoring and maintaining the primary, mixed, and permanent dentitions; applying preventive measures for dental caries and periodontal disease; and preventing, intercepting, and correcting various problems of occlusion.

**pedodontist** (pē'dō-dōn'tīst) A dentist who specializes in care of children's teeth.

**pedodynamometer** (pēd'ō-dī-nā-mōm'ē-tēr) [L. *pes*, foot, + Gr. *dynamis*, power, + *metron*, measure] A device for measuring the strength of the leg muscles.

**pedograph** (pēd'ō-grāf) [f' + Gr. *graphein*, to write] An imprint of the foot on paper.

**pedometer** (pēd-ōm'ē-tēr) [L. *pes*, foot, + Gr. *metron*, measurement] An instrument that indicates the number of steps taken while walking.

**pedomorphism** (pē'dō-mor'fīzm) [Gr. *pais*, child, + *morphe*, form, + *-ismos*, condition] The retention of juvenile characteristics in the adult.

**pedophilia** (pē'dō-fīl'ē-ā) [f' + *philein*, to love] An unnatural desire for sexual relations with children.

**pedorthics** (pēd'ōr-thīks) [L. *pes*, foot + Gr. *orthos*, straight] The making and fitting of shoes and other foot support products to alleviate and prevent foot injury and disease.

**pedorthist** (pēd'ōr-thīst) A footwear specialist. Pedorthists design and produce individually fitted shoes and foot support products to alleviate and prevent foot injury and disease.

**peduncle** (pē-dūn'kl) [L. *pedunculus*, a little foot] 1. Pedicle (1). 2. A brachium of the brain; a band connecting parts of the brain. SEE: *crus*; *sessile*.

**cerebral p.** A pair of white bundles from the upper part of the pons to the cerebrum. It constitutes the ventral portion of the midbrain. SYN: *crus cerebri*.

**inferior cerebellar p.** A band of fibers running along the lateral border of the fourth ventricle, connecting the spinal

cord and medulla with the cerebellum. SYN: *restiform body*.

**middle cerebellar p.** A band of fibers connecting the cerebellum with the basilar portion of the pons. SYN: *brachium pontis*.

**pineal p.** A band from either side of the pineal gland to the anterior pillars of the fornix at the back of the roof of the third ventricle. The pineal recess is a space nestled into the peduncle. SYN: *pineal stalk*.

**superior cerebellar p.** A band of fibers connecting the cerebellum with the midbrain. SYN: *brachium conjunctivum*.

**p. of superior olive** A slender band of fibers extending from the superior olivary nucleus in the medulla to the nucleus of the abducens nerve.

**thalamic p.** One of four groups of fibers known as thalamic radiations that connect the thalamus with the cerebral cortex. SEE: *radiation, thalamic*.

**peduncular** (pě-dŭn'kŭ-lār) [L. *pedunculus*, a little foot] Concerning a peduncle.

**pedunculate, pedunculated** (pě-dŭn'kŭ-lāt, -ĕd) Possessing a stalk or peduncle. SYN: *pediculate*.

**pedunculotomy** (pě-dŭng'kŭ-lŏt'ō-mē) [' + Gr. *tome*, incision] Surgical section of a cerebral peduncle. It has been used to treat involuntary movement disorders.

**peeling** (pě-lēng) [ME. *pelen*, to peel] Shedding of the surface of the skin. SEE: *desquamation*.

**chemical p.** Agents applied to skin to produce a mild, superficial burn; done to remove wrinkles.

**PEEP** (pēp) *positive end-expiratory pressure*.

**PEEP decrement (trial)** Sequential decreases in positive end-expiratory pressures (PEEP) until the lowest level of PEEP is achieved that improves lung compliance the most, without reducing the patient's partial pressure of oxygen. PEEP is then adjusted to a value just higher than that value.

**peer** (pēr) [ME.] One who has an equal standing with another in age, class, or rank.

**p. review** The evaluation of the quality of the work effort of an individual by his or her peers. It could involve evaluation of articles submitted for publication or the quality of medical care administered by an individual, group, or hospital.

**PEG** (pěg) *percutaneous endoscopic gastrostomy*.

**peg, rete** (pěg) Rete ridge.

**Peganum harmala** (pě-gahn' ūm hahr' mŭ-lŭ) A weed, commonly known as Syrian rue and considered a livestock toxin, used for medicinal and spiritual purposes in many regions of the world.

Extracts (tea) made from its seeds are consumed ceremonially in certain cultures. They contain beta-carboline alkaloids, a class of chemicals that increase levels of serotonin in the brain. Use of the extracts may induce hallucinations. Overdose may result in the serotonin syndrome.

**peg tooth** An abnormally shaped tooth of genetic origin. Usually noted as a maxillary lateral incisor with a smaller cone-shaped crown.

**pegylation** (pěg'ī-lā'-shŭn) The chemical linking of a drug (e.g., interferon) to polyethylene glycol. Pegylation increases the half-life of interferon.

**PEJ** (pěj) *percutaneous endoscopic jejunostomy*.

**pejorative** (pī-jaw'r'ā-tív, pěj'jā-rā'tív) [L. *pejor*, worse] 1. Tending to become or make worse. 2. Disparaging or belittling.

**PEL** *permissible exposure limits*.

**pelade** (pěl-ad') [Fr., to remove hair] Alopecia areata.

**pelage** (pěl'ij) [Fr.] The collective hair of the body.

**Pel-Ebstein fever** (pěl'ěb'stĭn) [Pieter K. Pel, Dutch physician, 1852–1919; Wilhelm Ebstein, Ger. physician, 1836–1912] Cyclic fever occurring in Hodgkin's disease in which high body temperatures lasting from 3 to 10 days are separated by an afebrile period of about the same length.

**Pelger-Huët anomaly** (pěl'jēr hŭ'ět) [Karel Pelger, Dutch physician, 1885–1931; Gauthier Jean Huët, Dutch physician, 1879–1970] ABBR: PHA. A benign autosomal dominant disorder of neutrophil maturation, in which granulocytes form with rodlike, dumbbell, peanut-shaped, and spectacle-like nuclei. The chromatin of the nuclei is unusually coarse. Despite their unusual shape, the oddly formed cells function normally. An anomaly in white blood cell formation called *Pseudo-PHA* or *acquired PHA* appears structurally similar to PHA and occurs in myelodysplasia and some leukemias.

**peliosis** (pě-lē-ō'sĭs) [Gr.] Purpura.

**bacillary p.** A complication of an infection due to *Bartonella henselae* and *B. quintana*, esp. in immunocompromised patients. The infection causes vascular lesions in the visceral organs, esp. the liver and spleen.

**p. hepatitis** Multiple cystic, blood-filled spaces in the liver associated with dilatation of the sinusoids. These cause enlargement of and pain in the liver. These lesions are associated with use of oral contraceptives, certain types of anabolic steroids, and infections with *Bartonella* organisms. If the condition is due to infection, treatment consists of parenteral doxycycline for several weeks followed by several months of

oral therapy. SEE: *bacillary angiomatosis*; *cat scratch disease*.

**Pelizaeus-Merzbacher disease** (pĕl-ĭ-zā' ūs-mŭrts' bŏk-ĕr, -mā rts') [F. Pelizaeus, Ger. neurologist, 1850–1917; L. Merzbacher, Ger. neurologist, 1875–1942] An X-linked disorder of myelin formation marked by cognitive deficits, nystagmus, spasticity, and gait disturbance.

**pellagra** (pĕl-ă'gră, pĕ-lăg'ră) [L. *pellis*, skin, + Gr. *agra*, rough] The clinical consequences of profound niacin deficiency characterized by cutaneous, gastrointestinal, mucosal, and neurological symptoms. It is found in regions of the world where malnutrition is endemic.

**SYMPTOMS:** In advanced cases, stomatitis and glossitis, diarrhea, dermatitis, and central nervous system involvement occur. Cutaneous lesions include erythema followed by vesiculation, crusting, and desquamation. The skin may become dry, scaly, and atrophic. The mucous membranes of the mouth, esophagus, and vagina may atrophy; ulcers and cysts may develop. Anemia is common. Nausea, vomiting, and diarrhea occur, the last being characteristic. Involvement of the central nervous system is first manifested by neurasthenia, followed by organic psychosis characterized by disorientation, memory impairment, and confusion. Later, delirium and clouding of consciousness may occur.

**ETIOLOGY:** This condition is due to inadequate intake or absorption of niacin (nicotinic acid) or its amide (niacinamide, nicotinamide). It is commonly associated with restricted or limited diets in which a single cereal grain, esp. corn, is consumed without adequate consumption of wheat, eggs, beef, poultry, or other niacin- or tryptophan-rich foods. The condition is often found in chronic alcoholism.

**TREATMENT:** The disease is treated by following a diet adequate in all vitamins, minerals, and amino acids supplemented by 500 to 1000 mg of niacinamide given orally three times daily. If there is any doubt about the ability of the intestinal tract to absorb vitamins, the vitamins should be given parenterally.

**pellagrin** (pĕ-lă'grĭn, -lăg'rĭn) A person afflicted with pellagra.

**Pellegrini's disease, Pellegrini-Stieda disease** (pĕl'ĭ-grĕ'nĕz, pĕl'ĭ-grĕ'nĕ-shtĕ'dă) [Augusto Pellegrini, It. surgeon, 1877–1958; Alfred Stieda, Ger. surgeon, 1869–1945] Posttraumatic ossification of the superior portion of the medial collateral ligament of the knee.

**pellet** (pĕl'ĕt) [Fr. *pelote*, a ball] **1.** A tiny pill or small ball of medicine or food. **2.** A solid that condenses at the bottom of a centrifuged solution. **3.** Any

small round object, such as a bit of buckshot or a BB, that may enter the body in gunshot injuries.

**cotton p.** A small rolled cottonball, less than 3/8 in (about 1 cm) in diameter, used for desiccation or topical application of medicaments, particularly in dentistry; also called pledgets.

**foil p.** Loosely rolled gold foil used for direct filling in dental restoration. SEE: *foil*.

**pellicle** (pĕl'ĭ-k'l) [L. *pellicula*, a little skin] **1.** A thin piece of cuticle or skin. **2.** Film or surface on a liquid. **3.** Scum.

**salivary p.** The thin layer of salivary proteins and glycoproteins that quickly adhere to the tooth surface after the tooth has been cleaned; this amorphous, bacteria-free layer may serve as an attachment medium for bacteria, which in turn form plaque.

**pellitory-of-the-wall** (pĕl'ĭ-tŏr'ĕ ūv thŭ-wăl) [L. *pellitorium*, feverfew] *Parietaria judaica*.

**pellucid** (pĕl-lŭ'sĭd) [L. *pellucidus*] Clear.

**pellucid zone** *Zona pellucida*.

**pelotherapy** (pĕ'lŏ-thĕr'ă-pĕ) [Gr. *pelos*, mud, + *therapeia*, treatment] The therapeutic use of mud, peat, moss, or clay applied to all or part of the body.

**pelv-, pelvi-, pelvo-** Combining forms meaning *pelvis*.

**pelvic** (pĕl'vĭk) [L. *pelvis*, basin] Pert. to a pelvis, usually the bony pelvis.

**pelvicephalometry** (pĕl'vĕ-sĕf'ă-lŏm'ĕ-trĕ) [" + " + *metron*, measure] Measurement of the diameters of the fetal head and comparison of these with the diameters of the maternal pelvis.

**pelvic floor dyssynergy** Uncoordinated or faulty contraction of the muscles that aid defecation. It is an infrequent cause of chronic constipation.

**pelvic inflammatory disease** ABBR: PID. Infection of the uterus, fallopian tubes, and adjacent pelvic structures that is not associated with surgery or pregnancy. PID usually is caused by an ascending infection in which disease-producing germs spread from the vagina and cervix to the upper portions of the female reproductive tract. SEE: *chlamydia*; *gonorrhoea*; *Nursing Diagnoses Appendix*.

**ETIOLOGY:** *Chlamydia trachomatis* and *Neisseria gonorrhoeae* are the most frequent causes of PID, although anaerobic microorganisms, *Escherichia coli*, and other microorganisms also are often involved.

**SYMPTOMS:** The most common symptom is lower abdominal or pelvic pain, typically beginning after the start of a menstrual period. Exquisite tenderness during physical examination of the cervix, fallopian tubes, or ovaries is a common sign. Clear, white, or purulent vaginal discharge is sometimes present.

Fevers, chills, nausea, vomiting, vaginal bleeding, dysuria, dyspareunia, or anorectal pain are seen in smaller numbers of patients.

**DIAGNOSIS:** Distinguishing PID from other causes of lower abdominal or pelvic pain can be difficult. The disease may be confused with appendicitis, diverticulitis, tubo-ovarian abscess, endometritis, ectopic pregnancy, and other serious illnesses. PID is most likely to be found in young, sexually active patients with multiple sexual partners, esp. if there is a history of previous sexually transmitted illnesses or of substance abuse. Leukocytosis and an elevated sedimentation rate are commonly found, and a mucopurulent discharge is often present on pelvic examination. Cultures from the vagina or cervix may be helpful in identifying the causative organism. In patients for whom the diagnosis is unclear, laparoscopy, ultrasonography, or computed tomography may be needed.

**COMPLICATIONS:** PID may result in adhesions or scarring of the fallopian tubes and pelvis, and is a common cause of pelvic pain and ectopic pregnancy. About a third of all women who are infertile have lost the ability to conceive because of PID. Occasionally, PID causes intraperitoneal abscesses.

**TREATMENT:** Antibiotics effective against gonococci, chlamydiae, anaerobes, and gram-negative rods usually are used to treat PID. Typical therapy includes a tetracycline derivative, like doxycycline, and a cephalosporin. Early therapy prevents infertility caused by fallopian tube adhesions or scarring. In patients with tubal or pelvic abscesses, drainage is required. Sexual partners should be examined for evidence of sexually transmitted diseases and treated if culture results are positive. SEE: *safe sex*.

**pelvic pain, chronic idiopathic** ABBR: CIPP. Unexplained pelvic pain in a woman that has lasted 6 months or longer. A complete medical, social, and sexual history must be obtained. In an experimental study, women with this illness reported more sexual partners, significantly more spontaneous abortions, and previous nongynecological surgery. These women were more likely to have experienced previous significant psychosexual trauma.

**TREATMENT:** The pain associated with CIPP should be treated symptomatically and sympathetically. The participation of pain management specialists, complementary medical providers, and the primary health care provider should be integrated. Realistic goals (e.g., the reduction of pain rather than its elimination) should be set. Medroxyprogesterone acetate, oral contracep-

tives, presacral neurectomy, hypnosis, and hysterectomy have been tried with varying degrees of success.

**pelvic rock** An exercise to strengthen the abdominal muscles and reduce the risk of backache or back stiffness (e.g., during pregnancy). The patient kneels on her hands and knees, hollows her back and pushes out her abdomen while inhaling, and arches her back like a cat and contracts the abdominal, gluteal, and levator muscles while exhaling. The exercise can be done while standing with the hands on the knees. The effects are maximized by concurrent abdominal breathing. SEE: *pelvic tilt*.

**pelvic tilt** An exercise to strengthen the abdominal muscles and reduce the risk of backache or back stiffness (e.g., during pregnancy). The patient assumes a supine position and flattens the hollow of her back against the floor. The abdominal, gluteal, and levator muscles are contracted with each exhalation and relaxed with each inhalation. The effects are maximized by concurrent abdominal breathing. SEE: *pelvic rock*.

**pelvimeter** (pĕl'vīm'ĕ-tĕr) [l' + Gr. *metron*, measure] A device for measuring the pelvis.

**pelvimetry** (pĕl'vīm'ĕ-trĕ) Measurement of the pelvic dimensions or proportions, a technique which was formerly thought to be useful in obstetrics.

**pelvioplasty** (pĕl've-ō-plās'tē) [l' + Gr. *plassein*, to form] 1. Enlargement of the pelvic outlet to facilitate childbirth. SYN: *pelviotomy* (1); *pubiotomy*; *symphysiotomy*. 2. Plastic surgical procedure on the pelvis of the kidney.

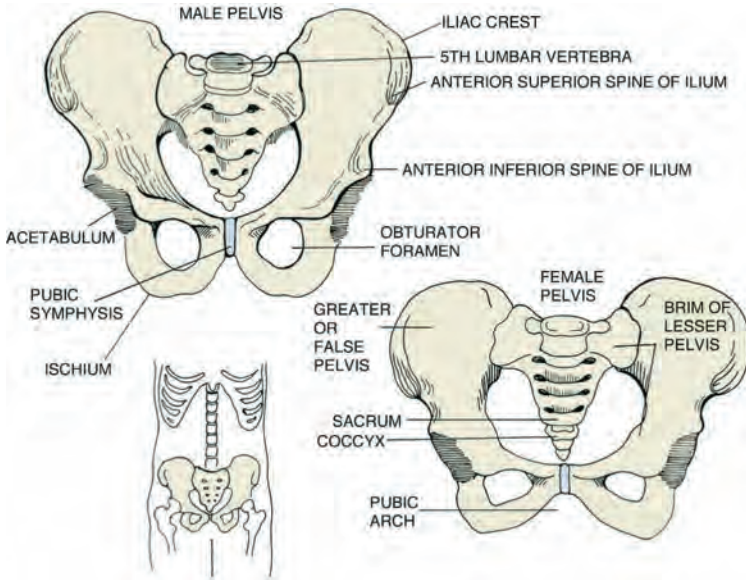
**pelvioscopy** (pĕl've-ōs'kō-pĕ) [L. *pelvis*, basin, + Gr. *skopein*, to examine] Inspection of the pelvis.

**pelviotomy** (pĕl've-ōt'ō-mĕ) [l' + Gr. *tome*, incision] 1. Enlargement of the pelvic outlet to facilitate childbirth. 2. Incision of the renal pelvis; usually done in order to remove a calculus.

**pelvis** (pĕl'vis) *pl. pelves* [L., basin] 1. Any basin-shaped structure or cavity. 2. The bony compartment comprising the innominate bones, the sacrum, and the coccyx, joined at the symphysis pubis, sacroiliac, and sacrococcygeal articulations by a network of cartilage and ligaments. The structure supports the vertebral column and articulates with the lower limbs. SEE: *illus.* 3. The cavity encompassed by the innominate bones, the sacrum, and the coccyx.

**ANATOMY:** The pelvis is separated into a false or superior pelvis and a true or inferior pelvis by the iliopectineal line and the upper margin of the symphysis pubis. The circumference of this area constitutes the inlet of the true pelvis. The lower border of the true pelvis, termed the outlet, is formed by the coccyx, the protuberances of the ischia, the





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ascending rami of the ischia, and the descending rami of the ossa pubis and the sacrosacral ligaments. The floor of the pelvis is formed by the perineal fascia, the levator ani, and the coccygeus muscles. All diameters normally are larger in the female than in the male.

**EXTERNAL DIAMETERS:** *Interspinoous:* The distance between the outer edges of the anterosuperior iliac spines, the diameter normally measuring 26 cm (10¼ in.). *Intercristal:* The distance between the outer edges of the most prominent portion of the iliac crests, the diameter normally being 28 cm (11 in.). *Intertrochanteric:* The distance between the most prominent points of the femoral trochanters, 32 cm (12½ in.). *Oblique (right and left):* The distance from one posterosuperior iliac spine to the opposite anterosuperior iliac spine, 22 cm (8½ in.), the right being slightly greater than the left. *External conjugate:* The distance from the undersurface of the spinous process of the last lumbar vertebra to the upper margin of the anterior surface of the symphysis pubis, 20 cm (7⅞ in.).

**INTERNAL DIAMETERS:** *True conjugate:* The anteroposterior diameter of the pelvic inlet, 11 cm (4¼ in.), the most important single diameter of the pelvis. *Diagonal conjugate:* The distance between the promontory of the sacrum to the undersurface of the symphysis pubis, 13 cm (5½ in.). Two cm (¾ in.) are deducted for the height and inclination of the symphysis pubis to obtain the di-

ameter of the conjugate. *Transverse:* The distance between the ischial tuberosities, 11 cm (4¼ in.). *Anteroposterior (of outlet):* The distance between the lower border of the symphysis pubis and the tip of the sacrum, 11 cm (4¼ in.). *Anterior sagittal:* The distance from the undersurface of the symphysis pubis to the center of the line between the ischial tuberosities, 7 cm (2¾ in.). *Posterior sagittal:* The distance from the center of line between the ischial tuberosities to the tip of the sacrum, 10 cm (4 in.).

**android p.** The normal shape of the male pelvis. About 30% of women share this bony configuration; however, the heart-shaped inlet, convergent sidewalls, slanted sacrum, and narrow sacrosacral notch pose problems for childbearing. The narrowed dimensions increase the risk of fetopelvic disproportion, obstructed labor, and cesarean delivery. **SYN:** *masculine pelvis.*

**anthropoid p.** A structural abnormality that occurs in about 20% of women. Deviations from the normal gynecoid configuration include a long, oval, narrow inlet and narrow sacrum, straight sidewalls, and a wide sacrosacral notch. The shape increases the potential for fetal posterior positions during childbearing.

**assimilation p.** A structural abnormality that results from a developmental lumbosacral fusion or from a sacrococcygeal fusion.

**beaked p.** A pelvis with the pelvic bones laterally compressed and pushed



forward so that the outlet is narrow and long. SYN: *rostrate pelvis*; *triradiate pelvis*.

**bony pelvis** The skeleton of the pelvis, consisting of the right and left hip bones (each made of an ilium, an ischium, and a pubis), the sacrum, and the coccyx.

**brachypellic p.** An oval pelvis in which the transverse diameter is at least 1 cm longer, but no more than 3 cm longer, than the anteroposterior diameter of the pelvis.

**brim of the p.** Brim (2).

**contracted p.** A pelvis in which one or more of the principal diameters is reduced to a degree that parturition is impeded.

**cordate p.** A pelvis possessing a heart-shaped inlet.

**coxalgic p.** A pelvis deformed subsequent to hip joint disease.

**dolichopellic p.** An abnormal pelvis in which the anteroposterior diameter is greater than the transverse diameter.

**dwarf p.** An unusually small pelvis in which all diameters are symmetrically reduced.

**elastic p.** Osteomalacic p.

**extrarenal p.** A renal pelvis located outside the kidney.

**false p.** The portion of the pelvic cavity that lies above the pelvic brim, bounded by the linea terminalis and the iliac fossae. It supports the weight of the growing uterus during the middle and last trimesters of pregnancy. SYN: *pelvis major*.

**fissured p.** A structural malformation in which the ilia are pushed forward to an almost parallel position; caused by rickets.

**flat p.** A pelvis in which the anteroposterior diameters are shortened.

**frozen p.** Adhesion of the female reproductive organs to the peritoneum or bowel by cancer, endometriosis, or pelvic infection.

**funnel-shaped p.** A pelvis in which the outlet is considerably contracted but the inlet dimensions are normal.

**gynecoid p.** A normal female pelvis. Relative to the male pelvis it has a wider bone structure and a more oval shape.

**halisteretic p.** A deformed pelvis resulting from softening of bones.

**infantile p.** An adult pelvis that retains its infantile characteristics. SYN: *juvenile pelvis*.

**p. justo major** An unusually large pelvis.

**juvenile p.** Infantile p.

**kyphoscoliotic p.** A deformed pelvis caused by rickets.

**kyphotic p.** A deformed pelvis characterized by an increase of the conjugate diameter at the brim with reduction of the transverse diameter at the outlet.

**lordotic p.** A deformed pelvis in which the spinal column has an anterior curvature in the lumbar region.

**p. major** False p.

**masculine p.** A female pelvis that resembles a male pelvis, esp. in that it is narrower, more conical, and heavier-boned and has a heart-shaped inlet. SYN: *android pelvis*.

**p. minor** An unusually small pelvis.

**p. obtecta** A deformed pelvis in which the vertebral column extends across the pelvic inlet.

**osteomalacic p.** A pelvis distorted because of osteomalacia. SYN: *elastic pelvis*.

**Otto p.** SEE: *Otto pelvis*.

**platypellic p.** A rare structural malformation that resembles a flattened gynecoid pelvis with shortened anteroposterior and wide transverse diameters.

**pseudo-osteomalacic p.** A rachitic pelvis similar to that of a person with osteomalacia.

**rachitic p.** A pelvis deformed from rickets.

**renal p.** The expanded proximal end of the ureter. It is within the renal sinus of the kidney and receives the urine through the major calyces.

**reniform p.** A pelvis shaped like a kidney.

**rostrate p.** Beaked p.

**round p.** A pelvis with a circular inlet.

**scoliotic p.** A deformed pelvis resulting from spinal curvature.

**simple flat p.** A pelvis with a shortened anteroposterior diameter.

**p. spinosa** A rachitic pelvis with a pointed pubic crest.

**split p.** A pelvis with a congenital division at the symphysis pubis.

**spondylolisthetic p.** A pelvis in which the last lumbar vertebra is dislocated in front of the sacrum, causing occlusion of the brim.

**triradiate p.** Beaked p.

**true p.** The portion of the pelvis lying below the iliopectineal line. The dimensions of the true pelvis are of obstetrical significance in determining the success of fetal descent.

**pelviscopy** (pĕl-vĭs' kŭ-pĕ) Visual examination of the female reproductive organs with a laparoscope.

**pelvitherm** (pĕl'vĭ-thĕrm) [L. *pelvis*, basin, + Gr. *therme*, heat] A device for applying heat to the pelvis through the vagina.

**pemphigoid** (pĕm'fĭ-goyd) [Gr. *pemphigodes*, breaking out in blisters] A skin condition similar to pemphigus.



**bullous p.** A blistering disease found almost exclusively in the elderly. Large, tense bullae filled with clear serum form on normal and urticarial skin. Lesions predominate in the flexural aspects of the limbs and abdomen. This condition

is treated with corticosteroids and immunosuppressive agents, such as azathioprine or cyclophosphamide.

**pemphigus** (pém'fī-gūs) [Gr. *pemphix*, a blister] An acute or chronic autoimmune disease principally of adults but sometimes found in children, characterized by occurrence of successive crops of bullae that appear suddenly on apparently normal skin and disappear, leaving pigmented spots. Antibodies form against cellular adhesion molecules in the epidermis, causing layers of the skin to separate (and blister). A characteristic sign is a positive Nikolsky's sign: when pressure is applied to an area as if trying to push the skin parallel to the surface, the skin will detach from the lower layers.

**erythematous p.** Scaling, erythematous macules and blebs of the scalp, face, and trunk. The lesions have a "butterfly" distribution over the face. The disease resembles pemphigus foliaceus.

**p. foliaceus** Pemphigus in which keratinocyte adhesion is disrupted beneath the stratum corneum. Once lesions develop, they may spread to the entire body and mimic generalized exfoliative dermatitis. The positive Nikolsky's sign helps to make the correct diagnosis. The condition is treated with systemic corticosteroids.

**p. vegetans** A form of pemphigus vulgaris characterized by pustules instead of bullae. Pustules are followed by warty vegetations. Prognosis is good, even before therapy with corticosteroids.



**p. vulgaris** The most common form of pemphigus. Blisters develop suddenly and are round or oval, thin-walled, tense, and translucent and bilateral in distribution. The lesions have little tendency to heal, and bleed easily when they burst. Since the introduction of corticosteroids, the prognosis for this autoimmune disease is favorable, but the mortality rate is still 5% to 15%. Immunosuppressive agents (e.g., azathioprine or cyclophosphamide) are used with corticosteroid therapy. SEE: *photochemotherapy*.

**penalization** (pēm'īl-ī-zā'shīn, pēm") An ophthalmological treatment for an eye with weak vision in which the vision from the healthier eye is blunted, blurred, or blocked so that the weaker eye must be relied upon. It is one form of treatment for amblyopia.

**pencil** (pēm-sīl) A material rolled into cylindrical form; may contain a caustic substance or a therapeutic paste or ointment.

**pencil-in-cup deformity** A form of bone destruction (osteolysis) found in severe inflammatory arthritis, esp. in the finger and toe joints. The deformity is characterized by thinning of the phalan-

geal shaft and widening of its base proximal to the joint space.

**Pender, Nola J.** (pēm' dēr) A U.S. nursing educator and researcher, born 1941, who developed and refined the Health Promotion Model nursing theory. SEE: *Health Promotion Model*.

**pendular** (pēm'dū-lēr) [L. *pendulus*] Hanging so as to swing by an attached part; oscillating like a pendulum.

**pendulous** (pēm'dū-lūs) Swinging freely like a pendulum; hanging.

**penectomy** (pēm-ēk'tō-mē) Surgical or traumatic removal of the penis.

**penetrance** (pēm'ē-trāns) 1. The frequency of manifestation of a hereditary condition in individuals. In theory, if the genotype is present, penetrance should be 100%. That is not usually the case, as a result of the modifying effects of other genes. 2. The extent to which something enters an object.

**penetrate** (pēm'ē-trāt) [L. *penetrare*] To enter or force into the interior; pierce.

**penetrating** (pēm'ē-trāt-īng) Entering beyond the exterior.

**p. power** The capacity of a lens to see into an object.

**penetration** (pēm'ē-trā'shūn) [L. *penetrare*, to go within] 1. The process of entering within a part. 2. The capacity to enter within a part. 3. The power of a lens to give a clear focus at varying depths. 4. The ability of radiation to pass through a substance.

**penetrometer** (pēm'ē-trōm'ē-tēr) [" + Gr. *metron*, measure] An instrument that compares roughly the comparative absorption of x-rays in various metals, esp. silver, lead, and aluminum; hence, it gives a rough estimation of the ability of x-rays to penetrate tissues. SYN: *qualimeter*.

**-penia** (pēm'nē-ā) [Gr. *penia*, lack] Combining form indicating *decrease*, *deficiency*.

**penicillin** (pēm-ī-sīl'īn) Any of a group of antibiotics biosynthesized by several species of molds, esp. *Penicillium notatum* and *P. chrysogenum*. Penicillin is bactericidal, inhibiting the growth of some gram-positive bacteria and some spirochetes by interfering with cell wall synthesis. There are many different penicillins, including synthetic ones, and their effectiveness varies for different organisms. SEE: *penicillin allergy*.

**beta-lactamase resistant p.** Synthetic penicillins that resist the action of the enzyme beta-lactamase, produced by some microorganisms. Bacteria that produce the enzyme are not susceptible to the action of non-beta-lactamase resistant penicillins.

**p. G benzathine** An antibiotic of the penicillin class available in a variety of dosage forms, used orally and parenterally.

**penicillinase-resistant p.** Any of a

group of penicillins that are not inactivated by the enzyme penicillinase. These penicillins retain their effectiveness as antibiotics used for infections caused by bacteria that produce penicillinase. SEE: *bacterial resistance; beta-lactamase resistance; Staphylococcus aureus; methicillin-resistant.*

**p. V potassium** An antibiotic of the penicillin class. It is relatively stable in an acid medium and is therefore not inactivated by gastric acid when taken orally.

**penicillin allergy** A hypersensitivity reaction to penicillin, present in about 0.5% to 8% of the population. Although different types of hypersensitivity reactions may occur, the most common and potentially dangerous are the type I (immediate) reactions mediated by immunoglobulin E. If a patient reports a history of signs of local anaphylaxis (e.g., urticaria) or systemic anaphylaxis (e.g., bronchoconstriction, vasodilation) after taking penicillin, no penicillin or other beta-lactam antibiotics (e.g., cephalosporins) should be given to that patient ever again. In those very rare situations in which an infection is susceptible to no other antibiotic and the infection is serious enough to risk the danger of anaphylaxis, the patient may be desensitized with gradually increasing doses of penicillin.

**penicillinase** (pĕn-ĭ-sĭl'ĭ-nās) A bacterial enzyme that inactivates most but not all penicillins.

**penicillinase-producing Neisseria gonorrhoeae** ABBR: PPNG. Penicillin-resistant strains of *Neisseria gonorrhoeae*.

**penicilliosis** (pĕn'ĭ-sĭl'ĕ-ō'sĭs) [L. *penicillum*, brush, + *osis*, condition] Infection with the fungi of the genus *Penicillium*.

**Penicillium** (pĕn'ĭ-sĭl'ĕ-ŭm) [L. *penicillum*, brush] A genus of molds belonging to the Ascomycetes (sac fungi). They form the blue molds that grow on fruits, bread, and cheese. A number of species (*P. chrysogenum*, *P. notatum*) are the source of penicillin. Occasionally in humans they produce infections of the external ear, skin, or respiratory passageways. They are common allergens. SEE: **illus.**

**P. marneffei** A species that may cause systemic infections, esp. in immunocompromised patients. It is found most often in Southeast Asia, where it frequently infects patients with acquired immunodeficiency syndrome.

**penicilloyl-polylysine** (pĕn'ĭ-sĭl'oyl-pōl'ĕ-lĭ'sĕn) A substance used to determine sensitivity to some forms of penicillin. When it is injected intradermally into a sensitive individual, a wheal appears within 20 minutes.

**penicillus** (pĕn'ĭ-sĭl'ŭs) *pl.* **penicilli** [L., paint brush] A group of the branches of



**PENICILLIUM IN CULTURE**

arteries in the spleen that are arranged like the bristles of a brush. Each consists of successive portions: the pulp arteries, sheathed arteries, and terminal arteries.

**penile** (pĕ'nĭl, -nĭl) [L. *penis*, penis] Pert. to the penis. SEE: *penile prosthesis*.

**penile cuff test** A means of measuring bladder pressures during urination, in which urinary flow is interrupted by inflating a pediatric blood pressure cuff placed around the penis. The cuff pressure at which urinary flow stops is an indirect, noninvasive measure of bladder pressure during urination. The test is used to distinguish the causes of urinary hesitancy: men with prostatic hyperplasia have high bladder pressures when they urinate, whereas men with bladder weakness do not.

**penile fracture** A sudden traumatic injury to the tunica albuginea of the penis, resulting in a rupture of the corpus cavernosum and sometimes a tearing of the urethra. The injury typically occurs during sexual intercourse (or, less often, during masturbation) and may be accompanied by bleeding into the penis.

**penile ring** A ring made of metal, plastic, or leather. When placed around the flaccid penis, it is small enough to prevent venous return. Use of the device assists in maintaining erection of the penis and in delaying orgasm.

**penis** (pĕ'nĭs) *pl.* **penes**, **penes** [L.] The male organ of copulation and, in mammals, of urination. It is a cylindrical pendulous organ suspended from the front and sides of the pubic arch. It is homologous to the clitoris in the female. SEE: **illus.; circumcision; penile prosthesis; Peyronie's disease; priapism.**

**ANATOMY:** The penis is composed mainly of erectile tissue arranged in three columns, the whole being covered with skin. The two lateral columns are the corpora cavernosa penis. The third or median column, known as the corpus spongiosum, contains the urethra. The body is attached to the descending por-





blood pressure in critical situations, such as the treatment of sepsis, shock, or trauma.

**pentastomiasis** (pĕn'tă-stō-mī'ă-sis) Infection with certain genera of Pentastomida, the tongue worms. The larval forms usually live in the bodies of animals but have been reported in humans.

**pentatomic** (pĕn'tă-tōm'ik) [*"* + *atomos*, indivisible] Containing five atoms in the molecule.

**pentavalent** (pĕn'tō-vă'lĕnt, -tăv'ă-lĕnt) [Gr. *pente*, five, + L. *valens*, having power] Having a chemical valence of five.

**pentosazon** (pĕn'tō-să'zŏn) A crystalline compound formed when a pentose is treated with phenylhydrazine. It is not normally present in urine.

**pentose** (pĕn'tōs) [Gr. *pente*, five]  $C_5H_{10}O_5$ ; a monosaccharide containing five carbon atoms, such as ribose in RNA and deoxyribose in DNA.

**pentosemia** (pĕn'tō-sē'mĕ-ă) Pentose in the blood.

**pentoside** (pĕn'tō-sid) Pentose combined with some other substance. Pentoses combined with purine or pyrimidine bases are present in nucleic acids, DNA, and RNA.

**pentosuria** (pĕn'tō-sū'rĕ-ă) A condition in which pentose is found in the urine.

**pentoxide** (pĕn-tŏk'sid) A chemical molecule containing five atoms of oxygen.

**penumbra** (pĕ-nŭm'bră) **1.** Healthy tissue that surrounds an ischemic or infarcted part. **2.** A shadow, e.g., around a radiographic image or at the margin of tissue treated with radiation therapy.

**PEOP model** Person-Environment-Occupation-Performance model.

**peotomy** (pĕ-ŏt'ŏ-mĕ) [*"* + *tome*, incision] Surgical removal of the penis.

**Peplau, Hildegard** (pĕp'low) A nursing educator (1909–1999) who developed the Theory of Interpersonal Relations in Nursing. SEE: *Nursing Theory Appendix*.

**peplomer** (pĕp'lă-mĕr) [Gr. *peplos*, (woman's) dress + Gr. *meros*, part] A protein that protrudes from the lipid bilayer of an enveloped virus. A peplomer helps the virus gain entry into a cell with susceptible cell surface receptors.

**peplos** (pĕp'lŏs) [Gr. *peplos*, (woman's) tunic, loose-fitting robe] The lipid envelope that surrounds some viruses (e.g., arena, corona, and flaviviruses).

**pepper** (pĕp'ĕr) [ME. *peper*] A spice that is used as a condiment, stimulant, carminative, and counterirritant. The dried berries of the fruit of plants of the genus *Piper*. These are ground or used whole to season foods. Although pepper irritates the oral mucosa, it does not produce peptic ulcers.

The Scoville scale is used for judging the level of "heat" or spiciness of peppers. Using this scale, the hottest pep-

pers have a rating of 250,000 to 400,000 units. The active ingredient in chile peppers, capsaicin, may cause nasal or ocular irritation; it is wise to wear gloves, or to wash one's hands frequently when handling especially spicy peppers.

**peppermint** (pĕp'ĕr-mĭnt) A perennial herb, *Mentha piperita*, cultivated for its aromatic leaves and used as a flavoring agent, carminative, antiemetic, and gastrointestinal antispasmodic.

**peptic** (pĕp'sik) [Gr. *peptein*, to digest] Peptic.

**pepsin** (pĕp'sin) [Gr. *pepsis*, digestion] The chief enzyme of gastric juice, which converts proteins into proteoses and peptones. It is formed by the chief cells of gastric glands and produces its maximum activity at a pH of 1.5 to 2. It is obtainable in granular form. In the presence of hydrochloric acid, it digests proteins in vitro.

**pepsinogen** (pĕp-sin'ŏ-jĕn) [*"* + *genan*, to produce] The antecedent of pepsin existing in the form of granules in the chief cells of gastric glands.

**pepsinuria** (pĕp'sī-nū'rĕ-ă) [*"* + *ouron*, urine] Excretion of pepsin in the urine.

**peptic** (pĕp'tik) [Gr. *peptikos*] **1.** Concerning digestion. **2.** Concerning pepsin. SYN: *pepsic*.

**peptic ulcer** An ulcer in the lining of the duodenum, the lower end of the esophagus, or the stomach (usually along the lesser curvature). Peptic ulcer disease is a common illness, affecting about 10% of men and 5% of women during their lifetimes. SEE: *Curling's ulcer*; *Helicobacter pylori*; *stress ulcer*; *Zollinger-Elison syndrome*; *Nursing Diagnoses Appendix*.

**ETIOLOGY:** Common causes of peptic ulcer are factors that increase gastric acid production or impair mucosal barrier protection, such use of salicylates and nonsteroidal anti-inflammatory drugs (NSAIDs), tobacco smoking, *Helicobacter pylori* infection of the upper gastrointestinal tract, pathologic hypersecretory disorders, consumption of alcohol and coffee, and severe physiological stress. Ulcers occur in men and women and occur most frequently in patients over age 65, with about 1.6 million cases diagnosed annually in the U.S. The relationship between peptic ulcer and emotional stress is not completely understood.

**SYMPTOMS:** Patients with peptic ulcers may be asymptomatic or have gnawing epigastric pain, esp. in the middle of the night, or when no food has been eaten for several hours. At times, heartburn, nausea, vomiting, hematemesis, melena, or unexplained weight loss may signify peptic disease. Food intake often relieves the discomfort. Peptic ulcers that perforate the upper gastrointestinal tract may penetrate the



pancreas, causing symptoms of pancreatitis (severe back pain), and cause chemical peritonitis followed by bacterial peritonitis or an acute abdomen as irritating GI contents and bacteria enter the abdominal cavity. Bacterial peritonitis can lead to sepsis, shock, and death.

**DIAGNOSIS:** Endoscopy (esophago-gastroduodenoscopy) provides the single best test to diagnose peptic ulcers because it allows direct visualization of the mucosa and permits carbon 13 urea breath testing, cytologic studies and biopsy to diagnose *H. pylori*, and rule out cancer. During endoscopy, tissue can be excised, vessels ligated, or sclerosants injected. Barium swallow or upper gastrointestinal x-ray series may also be used to provide images for diagnosis or follow-up and may be the initial test for patients whose symptoms are not severe.

**TREATMENT:** *Helicobacter pylori* causes most peptic ulcers in the duodenum; antibiotics (clarithromycin and amoxicillin) are prescribed to treat *H. pylori*, and antisecretory (proton pump inhibitor) drugs like lansoprazole or omeprazole should be given to all patients with duodenal ulcers. Bismuth or other coating agents may be used as a barrier to protect the duodenal mucosa. Peptic ulceration of the stomach may be treated with the same medications if biopsies or breath tests reveal *H. pylori*. When patients have ulcers caused by the use of NSAIDs or tobacco, withholding these agents and treating with an H<sub>2</sub> blocker (e.g., ranitidine) provides an effective cure. The prostaglandin analog misoprostol may also be used to suppress or prevent peptic ulcer caused by NSAID use. GI bleeding is managed initially with passage of a nasogastric tube and iced saline lavage, possibly with norepinephrine added. Gastroscopy then allows visualization of the bleeding site and laser or cautery coagulation. When conservative medical treatment is ineffective, vagotomy and pyloroplasty may be used to reduce hydrochloric acid secretion and enlarge the pylorus to enhance gastric emptying. More extreme surgical therapy (including subtotal gastric resection) may be needed in rare instances of uncontrollable hemorrhage or perforation occurring as a result of peptic ulcer disease.

**PATIENT CARE:** The ambulatory patient is educated about agents that increase the risk for peptic ulceration (e.g., NSAIDs, tobacco products, excessive coffee intake, alcohol intake when symptoms are present, stressful situations) and given specific instructions to avoid them. Patient teaching should include the importance of adherence to prescription drug therapies, adverse re-

actions to H<sub>2</sub>-receptor antagonists and omeprazole (dizziness, fatigue, rash, diarrhea) and the need for follow-up examination and care.

In the hospitalized patient with ulcer-related bleeding, careful monitoring of vital signs, fluid balance, hemoglobin levels, and blood losses may enhance early recognition of worsening disease. Intravenous access is established, and IV opiates administered as prescribed for pain control. The patient is kept NPO. Electrolytes and fluids are replaced as needed. Endoscopic or other diagnostic and treatment procedures are explained to the patient, and the effects of prescribed therapies or transfusions are carefully assessed. All patient care concerns apply after major surgery. The patient is assessed for possible complications: hemorrhage, shock, malabsorption problems (iron, folate, or vitamin B<sub>12</sub> deficiency anemias), and dumping syndrome. In dumping syndrome, rapid gastric emptying results in duodenal or jejunal distention, with symptoms such as diaphoresis, weakness, nausea, flatulence, explosive diarrhea, distention, and palpitations occurring within 30 min after a meal. To avoid this problem, the patient is advised to drink fluids between meals rather than with meals, avoid large amount of carbohydrates, eat 4 to 6 small, high-protein, low-carbohydrate meals daily, and lie down after eating. Before and after discharge, health care professionals should help the patient to develop coping mechanisms to relieve anxiety. Patients are taught to recognize signs and symptoms of disease recurrence (e.g., coffee-ground emesis, the passage of black or tarry stools, or epigastric pain). Patients who use antacid preparations and have a history of cardiac disease or whose sodium intake is restricted for any reason are warned to take only those antacids that have low amounts of sodium. The need for ongoing medical care is stressed.

**peptidase** (pĕp'tī-dāz) An enzyme that converts peptides to amino acids.

**peptide** (pĕp'tīd) [Gr. *peptin*, to digest] A compound containing two or more linked amino acids.

**brain natriuretic p.** B-type natriuretic p.

**B-type natriuretic p.** ABBR: BNP. A hormone secreted by the left or right ventricle of the heart whose concentration in the bloodstream rises during episodes of decompensated heart failure.

**immunodominant p.** Any peptide that has a strong affinity for binding with class I or II histocompatibility antigens and for stimulating a response by T lymphocytes. Immunodominant peptides are produced by antigen processing, are expressed on the surface of mac-

rophages and other antigen-presenting cells, and may be useful both in desensitizing people to allergens and in vaccine production. SYN: *immunodominant epitope*.

**natriuretic p.** Any peptide that stimulates the kidneys to excrete salt and water.

**peptide mapping** A means of identifying proteins electrophoretically after partially hydrolyzing them. Each protein leaves a characteristic pattern of light and dark peptide bands on the electrophoretic paper or gel.

**peptidoglycan** (pěp-tī-dōglisān) A large, complex carbohydrate that forms layers in the cell walls of bacteria. Gram-positive cell walls have many peptide-linked layers; gram-negative cell walls have few layers.

**peptidolytic** (pěp-tī-dō-lit'ik) [" + *lytikos*, dissolving] Causing the splitting up or digestion of peptides.

**peptidomimetics** (pěp-tī-dō-mī-mět'iks, pěp-tīd'ō-mī-) [" + "] The synthetic alteration of a natural peptide to make a new molecule that works in a specific biological or therapeutic application.

**peptization** (pěp-tī-zā'shūn) [Gr. *peptein*, to digest] In the chemistry of colloids, the process of making a colloidal solution more stable; conversion of a gel to a sol.

**Peptococaceae** (pěp-tō-kō-kā-sēi) A family of gram-positive, anaerobic cocci that includes the genus *Peptococcus* and may be normal or pathogenic inhabitants of the upper respiratory and intestinal tracts.

**Peptococcus** (pěp-tō-kōk'ūs) A genus of gram-positive, anaerobic cocci that are normally present in the oral cavity, on the skin, and in the intestinal tract. When associated with infection, they usually act synergistically with other organisms.

**peptogenic, peptogenous** (pěp-tō-jěn'ik, -tōj'ěn-ūs) [" + *gennan*, to produce] 1. Producing peptones and pepsin. 2. Promoting digestion.

**peptone** (pěp'tōn) [Gr. *pepton*, digesting] A secondary protein formed by the action of proteolytic enzymes, acids, or alkalis on certain proteins.

**peptonization** (pěp-tō-nī-zā'shūn) [Gr. *pepton*, digesting] The action by which proteolytic enzymes break proteins into peptones.

**peptonize** (pěp'tō-nīz) To convert into peptones; to predigest with pepsin.

**peptonuria** (pěp-tō-nū-rē-ā) [" + *ouron*, urine] Excretion of peptones in the urine.

**Peptostreptococcus** (pěp-tō-strěp'tō-kōk'ūs) A genus of gram-positive anaerobic cocci of the Peptococaceae family. They may be normal or pathogenic inhabitants of the upper respiratory and intestinal tracts and are an impor-

tant cause of infections. Two species of *Peptostreptococcus* (*P. magnus* and *P. micros*) have been renamed as *Finegoldia magnus* and *Micromonas magnus*, respectively.

**per** [L. *per*, through] 1. Through, by, by means of. 2. In chemistry, the highest valence of an element. 3. For each unit or entity (e.g., milligrams per kilogram, usually written as mg/kg).

**per-** A prefix indicating *throughout, through, utterly, intense*.

**peracephalus** (pěr'ă-sěf'ă-lūs) [" + Gr. *α-*, not, + *kephale*, head] A parasitic placental twin. It does not contain a head or arms, and the thorax is malformed.

**peracid** (pěr-ăs'id) 1. An acid that contains the highest valence possible. 2. An acid containing the peroxide group, O—OH.

**peracute** (pěr'ă-kūt') [" + *acutus*, keen] Very acute or violent.

**per anum** (pěr ā'nūm) [L.] Through or by way of the anus.

**perarticulation** (pěr'ăr-tik'ū-lā'shūn) [L. *per*, through, + *articulatio*, joint] Diarthrosis.

**percent** (pěr-sěnt) Per hundred; one of each hundred. The symbol % is used to indicate that the preceding number is a percentage rather than an absolute number. Thus, 8% of 50 is 4; whereas 8% of 500 is 40.

**percentage depth dose** SEE: under *dose*.

**percentile** (pěr-sěn'til) One of 100 equal divisions of a series of items or data. Thus if a value such as a test score is higher than 92% of all the other test scores, that result is above the 92nd percentile of the range of scores.

**percept** (pěr'sěpt) The mental image of an object seen.

**perception** (pěr-sěp'shūn) [L. *perceptio*, perceive] 1. Awareness of objects; consciousness. 2. The observation or receipt of sensory information. 3. The elaboration of a sensory impression; the ideal association modifying, defining, and usually completing the primary impression or stimulus. Vague or inadequate association occurs in confused and depressed states.

**auditory p.** 1. Hearing. 2. Ability to identify, interpret, and attach meaning to sound.

**depth p.** The perception of spatial relationships; three-dimensional perception.

**extrasensory p.** ABBR: ESP. The reported perception of external events by other than the five senses.

**gustatory p.** Taste.

**olfactory p.** Smell.

**stereognostic p.** The recognition of objects by touch.

**tactile p.** Touch.

**visual p.** Sight.

**perceptivity** (pěr-sěp-tív'í-tē) The power to receive sense impressions.

**perceptual completion** An optical illusion in which a boundary, color, texture, light, or object is seen where one does not actually exist. This defect in visual perception, also known as "filling-in," commonly is experienced by people with visual field cuts or defects (scotoma).

**percolate** (pěr'kō-lāt) [L. *percolare*, to strain through] **1.** To allow a liquid to seep through a powdered substance. **2.** Any fluid that has been filtered or percolated. **3.** To strain a fluid through powdered substances in order to impregnate it with dissolved chemicals.

**percolation** (pěr'kō-lā'shūn) [L. *percolatio*] **1.** Filtration. **2.** The process of extracting soluble portions of a drug of powdered composition by filtering a liquid solvent through it.

**percolator** (pěr'kō-lā'tor) An apparatus used for extraction of a drug with a liquid solvent.

**per contiguum** (pěr kōn-tīg'ū-ūm) [L.] Touching, as in the spread of an inflammation from one part to an adjacent structure.

**per continuum** (pěr kōn-tín'ū-ūm) [L.] Continuous, as in the spread of an inflammation from part to part.

**percuss** (pěr-kūs') [L. *percutere*] To tap parts of the body to aid diagnosis by listening carefully to the sounds they emit.

**percussion** (pěr-kūsh'ūn) [L. *percussio*, a striking] **1.** Striking the body surface (usually with the fingers or a small hammer) to determine the position, size, or density of underlying structures. **2.** A technique for mobilizing secretions from the lungs by striking the chest wall with cupped hands.

**auscultatory p.** Percussion combined with auscultation.

**bimanual p.** Mediate p.

**deep p.** Forceful percussion used to elicit a note from a deeply seated tissue or organ.

**direct p.** Immediate p.

**finger p.** Striking of the examiner's finger as it rests upon the patient's body with a finger of the examiner's other hand.

**immediate p.** Percussion performed by striking the surface directly with the fingers. SYN: *direct percussion*.

**indirect p.** Mediate p.

**mediate p.** Percussion performed by using the fingers of one hand as a plexor and those of the opposite hand as a pleximeter. SYN: *bimanual percussion*; *indirect percussion*.

**palpation p.** Percussion in which the examiner uses his or her fingers to feel vibrations that are produced within the body, instead of listening for the sounds produced by striking the body.

**threshold p.** Percussing lightly with the fingers on a glass-rod pleximeter,

the far end of which is covered with a rubber cap. The cap is usually placed on an intercostal space. This technique is used to confine the percussion to a very small area.

**percussor** (pěr-kūs'or) [L., striker] A device used for diagnosis by percussion, consisting of a hammer with a rubber or metal head.

**percutaneous** (pěr'kū-tā'nē-ūs) [L. *per*, through, + *cutis*, skin] Effected through the skin; describes the application of a medicated ointment by friction, or the removal or injection of a fluid by needle.

**percutaneous blood sampling** ABBR: PUBS. Cordocentesis.

**percutaneous cord blood s.** Cordocentesis.

**percutaneous coronary intervention** ABBR: PCI. Any procedure in which catheters are placed within the coronary arteries to study them or open them when they are obstructed. Examples of this are balloon angioplasty, atherectomy, and stent placement.

**PATIENT CARE:** When the patient returns to the nursing unit post-PCI procedure, the nurse should be alerted to the type of procedure performed, the site of the sheath, the type of the sheath, the flush system in use, and any adverse events that have occurred. A cardiovascular assessment is performed immediately including vital signs and an ECG. The femoral artery, peripheral perfusion in the foot on the side of the intervention (typically the right foot), urine output, and pain level are assessed and documented. Physician orders are reviewed re vital signs, intravenous fluids (IV), activated clotting time, and the plan for sheath removal. If any bleeding is suspected, hemoglobin and hematocrit levels are checked and compared to preprocedural values. During sheath removal two nurses work together: one monitoring the patient while the other removes the sheath. The patient's IV line must be patent, with fluid infusing and 500 mL normal saline available. A bedside monitor with noninvasive blood pressure capability, an ECG, and pulse oximeter should also be available. The patient is placed in a supine position, the dressing removed, and the arterial puncture site inspected for bleeding or hematoma. The patient should be advised that he will probably feel mild to moderate discomfort and pressure during and after sheath removal. Pain relievers are provided as prescribed. A syringe is attached to the stopcock, and blood drawn to ensure there is no clot in the sheath. If a suture has been used to close the access site, it is then removed. The femoral artery is palpated, and pressure applied using fingers placed along the artery, beginning about 1 cm

above the puncture site because the sheath is inserted on an angle and therefore enters the artery proximal to the skin puncture site. Using the free hand, the nurse then gently withdraws the sheath (pulling it toward the patient's foot). Manual pressure is maintained on the site to stop bleeding but should not be strong enough to obscure the pedal pulse (checked by nurse #2). The site is re-examined for bleeding, swelling, and hematoma formation. Vital signs are assessed every 3 to 5 min after the sheath is removed. Continuous manual pressure or mechanical compression should be applied to an arterial site for 10 to 20 min or longer, and to a venous site for 10 min. When bleeding has ceased, compression is discontinued, and a dressing is applied to the insertion site. The head of the bed may now be elevated slightly. Frequent patient assessment continues according to agency protocol, typically q15m X4, then q30m X4, then q1h X4. Bedrest is maintained for 2 to 6 hr (longer if the patient is not stable), with the affected leg kept straight to minimize insertion site bleeding. This position may be uncomfortable, and the patient may require reminders to maintain it. Oral intake can be resumed once the sheath has been removed and the potential for vasovagal-induced vomiting has passed. The dressing is removed after 24 h and the wound assessed for complications. Vascular closure devices (suture-placement and collagen-delivery) may be employed. Adverse reactions to sheath removal include bleeding, hypotension (during or following removal), or vasovagal-induced bradycardia. The patient is assessed for symptoms such as dizziness, altered mental status, nausea, bradycardia, or hypotension. Patients must be monitored for complications related to PCI (e.g., coronary ischemia, contrast-induced nephropathy, and insertion-site problems). Trauma to the femoral vessels may be minor or serious, and when patients have both femoral arterial and venous sheaths, the arterial sheath is removed first to reduce the risk of vascular complications. Bleeding frequently complicates the procedure. For mild bleeding, pressure is applied to the puncture site; for more serious bleeding (e.g., bleeding that compromises vital signs or the punctured limb), pressure is applied, and the cardiologist or a vascular surgeon notified. Ecchymosis is common at the site immediately or after dressing removal, often extending into surrounding tissues and accompanied by pain and minor swelling. Retroperitoneal hematoma should be suspected if the patient experiences flank, abdominal, or back

pain, unexplained hypotension, or a marked drop in hematocrit. Other complications include arterial occlusion by clot formation, pseudoaneurysm, arteriovenous fistula, and infection. The patient and family should receive clear written and verbal instructions for home care before discharge. The patient should be advised to avoid strenuous activities for 3 days after a PCI and not to attempt to lift anything heavier than 10 lb until after a follow-up visit with the cardiologist. Reclining is recommended rather than sitting. The patient may shower, but should not take tub baths or swim until the groin site is fully healed. If a dressing is in place, it may be removed in 24 hr, and the site kept clean and dry. Some bruising and development of a small lump at the site are normal. If light bleeding occurs, the patient or a family member should apply pressure to the site for 10 minutes and then apply an adhesive bandage. For heavy bleeding, pressure should be applied 1 in above the puncture site and 911 should be called. The site should also be observed for infection (redness, warmth, pain, drainage) and the physician notified if any of these signs occur.

**percutaneous electrical nerve stimulation** ABBR: PENS. A treatment for pain in which weak electrical currents are applied to acupuncture needles inserted into trigger points or dermatomes near painful body parts. PENS is sometimes used to treat episodic low back pain and other regional pain syndromes. It may be used as an alternative to TENS.

**percutaneous nephrolithotomy** ABBR: PNL. The removal of stones from the urinary tract with a needle inserted through the skin and into the urinary collecting system. The collecting system near the stone is dilated, and the stone is grasped and/or crushed.

**per diem cost** (pěr-dē-ēm) Daily expenses.

**perencephaly** (pěr'ěn-sěf'ā-lē) [Gr. *pera*, pouch, + *enkephalos*, brain] Porencephalia.

**perennial** Throughout the entire year. Said of diseases, such as some cases of allergic rhinitis, which do not have a peak incidence in one season.

**perfectionism** (pěr-fěk'shün-izm) A personality trait in which the individual strives for achievement in a manner that borders on the obsessive or the depressive.

**perflation** (pěr-flā'shün) [L. *perflatio*] The process of blowing air into a cavity to expand its walls or to force out secretions or other matter.

**perfluorocarbon** (pěr-floor'-ā-kahr' būn, -floo'ā-rō-) A class of solvent molecules that can carry nonpolar gases, such as

oxygen, nitrogen, and carbon dioxide. They have been used experimentally in transfusion medicine and in some ophthalmic surgeries. Perfluorocarbons are also used as blood gas controls when prepared in buffered solutions equilibrated with CO<sub>2</sub> and O<sub>2</sub>.

**perforans** (pĕr'fō-rāns) [L.] Perforating or penetrating, as a nerve or blood vessel through a nerve or a muscle.

**perforate** (pĕr'fō-rāt) [L. *perforatus*, pierced with holes] **1.** To puncture or to make holes. **2.** Pierced with holes.

**perforating disorder** Any of several rare conditions associated with diabetes mellitus and/or chronic kidney disease in which dermal components, such as collagen or elastin, protrude through the epidermis. The perforating disorders include elastosis perforans serpiginosa, Kyrle disease, perforating folliculitis, and reactive perforating collagenosis, but some experts believe that all of these conditions reflect the same disease.

**perforation** (pĕr'fō-rā'shūn) **1.** The act or process of making a hole, such as that caused by ulceration. **2.** A hole made through a structure or part.

**nasal septal p.** A hole through the nasal septum, usually the result of chronic inflammation caused by infection or repeated cocaine inhalation.

**p. of stomach or intestine** An abdominal crisis in which a hole forms in a wall of the gastrointestinal tract, resulting in the release of intestinal fluids into the peritoneum. The leakage may produce a localized abscess, phlegmon, or diffuse peritonitis. SYN: *intestinal perforation*. SEE: *peritonitis*.

**SYMPTOMS:** The onset is accompanied by acute pain, beginning over the perforated area and spreading all over the abdomen. Nausea and vomiting, tachycardia, hypotension, fevers, chills, sweats, confusion, and decreased urinary output are common.

**TREATMENT:** Surgical treatment is necessary. Pending operation, the patient is given no oral fluids; parenteral fluids, antibiotics, and other medications are administered.

**tooth p.** An opening through the wall of a tooth, produced by pathologic processes or accidentally, thereby exposing the dental pulp. It is also called pulp exposure.

**perforator** (pĕr'fō-rā-tor) [L., a piercing device] **1.** An instrument for piercing the skull and other bones. **2.** A blood vessel that penetrates an organ (e.g. the septal perforator arteries of the heart); any of the perforating veins of the lower extremities

**tympanum p.** An instrument used to perforate the tympanum.

**perforatorium** (pĕr'fō-rā-tō'rē-ūm) The

pointed tip of the acrosome of the spermatozoa.

**perforin** (pĕr' fū-rĭn) One of a group of membrane-altering proteins released from natural killer cells and cytotoxic T cells that drill holes in cell membranes, causing affected cells to die. Perforins contribute to innate immune defenses against viruses and tumors.

**performance** (pĕr-fōr-māns) **1.** The undertaking and completion of mental or physical work. In rehabilitation, a person's performance is observed and measured to determine functional capability. **2.** An accomplishment; the fulfillment of a task.

**performance area** Functional classifications of tasks and roles used by occupational therapists for assessment and goal-setting, including activities of daily living, work and other productive activities, and leisure and play.

**Performance Assessment of Self-Care Skills** ABBR: PASS. A formal means of gauging an adult's capacity to thrive independently that measures home management and personal care skills, mobility, safety, and outcome.

**performance-based physical function test** ABBR: PPF. A four-component assessment of physical functioning. The PPF includes:

1. the time it takes a subject to walk 10 feet;
2. the time it takes to stand up from a seated position in a chair five consecutive times;
3. the grip strength in the dominant hand; and
4. a test of balance and stability.

Each component of the test is given a score from 0 to 4. The highest possible score on the test, indicating optimal physical functioning, is 16.

**performance improvement** ABBR: PI. Any enhancement in health care operations (e.g., communications, laboratory operations, patient safety, profitability, resource utilization).

**Performance IQ** A synonym for "nonverbal intelligence" as measured by standard psychometric tests.

**performance measure** Any criterion used to assess the efficiency or the quality of health care.

**perfusate** (pĕr-fū'zāt) The fluid used to perfuse a tissue or organ.

**perfuse** (pĕr-fūz') [L. *perfundere*, to moisten (all over)] To force or instill (fluids) into an organ or a vessel.

**perfusion** (pĕr-fū'zhūn) [L. *perfundere*, to pour through] **1.** The circulation of blood through tissues. **2.** Passing of a fluid through spaces. **3.** Pouring of a fluid. **4.** Supplying of an organ or tissue with nutrients and oxygen by injecting blood or a suitable fluid into an artery.

**coronary p.** The passage of blood through the arteries of the heart.



**perfusionist** (pĕr-fū'zhŭn-ĭst) A health care professional, formally known as a clinical perfusion scientist, who manages extracorporeal circulation of blood and operates the heart-lung machine.

**perhydrocyclopentanophenanthrene** (pĕr-hĭ'drō-sĭ'klō-pĕn-tān'ō-phĕn-ān'thrĕn)

The name of the ring structure of the chemical nucleus of the steroids. SEE: *steroid hormone* for illus.

**peri-** [Gr.] Prefix meaning *around, about*.

**periadentitis** (pĕr'ē-ā'dĕ-nĭ'tis) [" + *aden, gland, + itis, inflammation*] Inflammation of the tissues surrounding a gland.

**p. mucosa necrotica recurrens** An obsolete term for recurrent aphthous ulcers of the mouth, also known as Sutton's ulcers.

**perianal** (pĕr'ē-ā'nāl) [" + L. *anus, anus*] Around or close to the anus.

**periangitis** (pĕr'ē-ān'jĕ-ī'tis) [" + *angion, vessel, + itis, inflammation*] Inflammation of tissue around a blood or lymphatic vessel.

**periangiocholangitis** (pĕr'ē-ān'jĕ-ō-kō-lĭ'tis) [" + " + *chole, bile, + itis, inflammation*] Pericholangitis.

**periaortic** (pĕr'ē-ā-or'tĭk) [" + *aorte, aorta*] Around the aorta.

**periaortitis** (pĕr'ē-ā-or-tĭ'tis) [" + *aorte, aorta, + itis, inflammation*] Inflammation of adventitia and tissues around the aorta.

**periapex** (pĕr'ē-ā'pĕks) [" + L. *apex, tip*] The area around the apex of a tooth.

**periapical** (pĕr'ē-āp'ĭ-kāl) [" + L. *apex, tip*] Around the apex of the root of a tooth.

**periappendicitis** (pĕr'ē-ā-pĕn'dĭ-sĭ'tis) [" + L. *appendix, appendage, + Gr. itis, inflammation*] Inflammation of the tissues surrounding the appendix secondary to either appendicitis or other intraperitoneal inflammatory process.

**p. decidualis** A condition in which decidual cells exist in the peritoneum of the appendix vermiformis in cases of tubal pregnancy owing to adhesions between fallopian tubes and the appendix.

**periappendicular** (pĕr'ē-āp'ĕn-dĭk'ū-lār) [" + L. *appendix, appendage*] Surrounding an appendix.

**periarterial** (pĕr'ē-ār-tĕ'rĕ-āl) [" + *arteria, artery*] Placed around an artery.

**periarteriolymphoid sheath** (pĕr'ē-ār-tĕ'r'ē-ō'lĕr) ABBR: PALS. A region of the spleen that encircles the splenic arteries and is composed mostly of T cells. It comprises the tissues sometimes referred to as the white pulp of the organ.

**periarthritis** (pĕr'ē-ār-tĕr-ĭ'tis) [" + " + *itis, inflammation*] Inflammation of the external coat of an artery.

**p. gummosa** Gummas in the blood vessels in syphilis.

**p. nodosa** Polyarteritis nodosa. SEE: *Nursing Diagnoses Appendix*.

**periarthritis** (pĕr'ē-ār-thrĭ'tis) [" + " + *itis, inflammation*] Inflammation of the area around a joint.

**periarticular** (pĕr'ē-ār-tĭk'ū-lār) Circum-articular.

**periauricular** (pĕr'ē-āw-rĭk'ū-lār) Around the ear.

**periaxial** (pĕr'ē-āk'sĕ-āl) [" + *axon, axis*] Located around an axis.

**peribronchiolar** (pĕr'ĭ-brŏng'kĕ-ō'lār) [" + L. *bronchiolus, bronchiole*] Surrounding a bronchiole.

**peribronchiolitis** (pĕr'ĭ-brŏng'kĕ-ō-lĭ'tis) [" + " + Gr. *itis, inflammation*] Inflammation of the area around the bronchioles.

**pericardiectomy** (pĕr'ĭ-kār-dĕ-ĕk'tō-mĕ) [" + " + *ektome, excision*] Puncturing or perforation of the pericardium or creation of a pericardial window, for example, to relieve a pericardial effusion responsible for cardiac tamponade.

**pericardiocentesis** (pĕr'ĭ-kār-dĕ-ō-sĕn-tĕ'sis) [" + " + *kentesis, puncture*] Surgical perforation of the pericardium. This procedure is used to aspirate pericardial fluid. SEE: *illus*.

**pericardiolysis** (pĕr'ĭ-kār-dĕ-ō-lĭ-sĭs) [" + " + *lysis, dissolution*] Separation of adhesions between the visceral and parietal pericardium.

**pericardiomediastinitis** (pĕr'ĭ-kār-dĕ-ō-mĕ-dĕ-ās'tĭ-nĭ'tis) [" + " + L. *mediastinum, + Gr. itis, inflammation*] Inflammation of the pericardium and mediastinum.

**pericardiopexy** (pār-ē-kār-dĕ-ō-pĕks-ē) [" + " + *pexis, fixation*] A surgical procedure designed to increase the blood supply to the heart by joining the pericardium to an adjacent tissue.

**pericardiophrenic** (pĕr'ĭ-kār-dĕ-ō-frĕn'ĭk) [" + *kardia, heart, + phren, diaphragm*] Concerning the pericardium and diaphragm.

**pericardiopleural** (pĕr'ĭ-kār-dĕ-ō-ploo'rāl) [" + " + *pleura, rib*] Concerning the pericardium and pleura of the lungs.

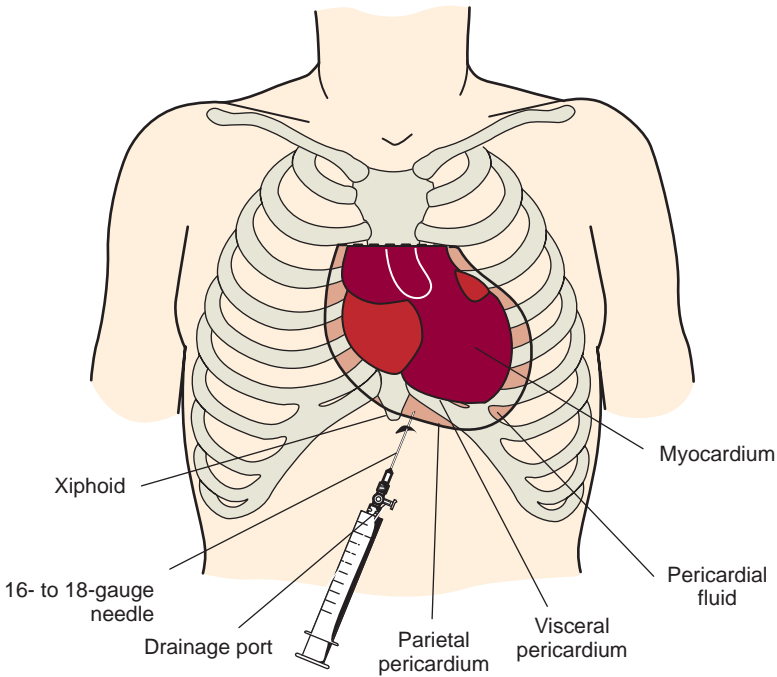
**pericardiorrhaphy** (pĕr'ĭ-kār-dĕ-or'ā-fĕ) [" + " + *rhaphe, seam, ridge*] Suture of a wound in the pericardium.

**pericardiostomy** (pĕr'ĭ-kār-dĕ-ōs'tō-mĕ) [" + *kardia, heart, + stoma, mouth*] Formation of an opening into the pericardium for drainage.

**pericardiosymphysis** (pĕr'ĭ-kār-dĕ-ō-sĭm'fĭ-sis) [" + " + *symphysis, ajoining*] Adhesion between the layers of the pericardium.

**pericardiotomy** (pĕr'ĭ-kār-dĕ-ōt'ō-mĕ) [" + " + *tome, incision*] Incision of the pericardium.

**pericarditis** (pĕr'ĭ-kār-dĭ'tis) [" + *kardia, heart, + itis, inflammation*] Inflammation of the pericardium, marked by chest pain, fever, and an audible fric-



### PERICARDIOCENTESIS

tion rub. SEE: *Dressler's syndrome*; *Nursing Diagnoses Appendix*.

**ETIOLOGY:** Many diseases and conditions can inflame the membranous covering of the heart, including infections (bacterial, tubercular, viral, fungal); collagen-vascular diseases (e.g., rheumatic fever, rheumatoid arthritis, or systemic lupus erythematosus); drugs (hydralazine, procainamide, isoniazid, minoxidil); myocardial infarction; cancer; renal failure; cardiac surgery; or trauma. In many instances, the precise cause is unknown (in these cases the inflammation is called idiopathic).

**SYMPTOMS:** Chest pain that varies with respiration is a hallmark of pericarditis. The pain often worsens when the patient lies down and improves when the patient sits up and leans forward. It is usually described as sharp and constant, and located in the mid-chest (retrosternally), but may radiate to the neck, shoulder, and back. Fever, cough, dyspnea, and palpitations also are characteristic. The classic sign of pericarditis is a friction rub (found in about 50% of cases), a multicomponent abnormal heart sound that some observers describe as being high-pitched, scratchy, raspy, grating, or leathery. It is best heard with the diaphragm of the stethoscope at the left lower sternal border as the patient sits up, leans forward,

and holds his/her breath after expiration.

**DIAGNOSIS:** Diagnosis is usually based on the clinical presentation, ECG changes, and echocardiography.

**TREATMENT:** Therapy depends on the cause of the syndrome. Uremic pericarditis, e.g., is treated with dialysis, whereas pyogenic pericarditis requires antibiotic therapy and drainage. Prednisone or other anti-inflammatory drugs improve pericardial pain in patients with idiopathic disease. Many cases of pericarditis are self-limiting, but without treatment others may progress to chronic constrictive pericarditis or cardiac tamponade.

**PATIENT CARE:** The patient is observed closely for symptoms of cardiac tamponade, such as pallor and clammy skin, pulsus paradoxus (systolic blood pressure at least 10 mm Hg lower during slow inspiration than during expiration), weak or absent peripheral pulses, distended neck veins, decreased blood pressure, and narrowing pulse pressure. Patients with chronic constrictive pericarditis usually require a total pericardectomy to permit adequate filling and contraction of the heart. If surgery is required, the patient is taught deep-breathing and coughing (incentive spirometry) exercises beforehand as time permits. Postoperative

care will be similar to that for other cardiothoracic surgical patients. Medications are administered as prescribed. Activities are restricted and vigorous exercise should be avoided until pain and fever subside, which may take weeks to months. In the convalescent phase, the patient is taught about the importance of taking prescribed medications, their purposes, and any potentially recurring symptoms to report. The patient is encouraged to keep all scheduled follow-up appointments and to notify the primary health care provider immediately if changes in symptoms occur, such as return or worsening of pain, difficulty breathing, irregular heart beats, or loss of consciousness.

**adhesive p.** An old term for constrictive pericarditis.

**constrictive p.** Scarring of the pericardium after one or more episodes of pericarditis. This limits normal cardiac filling during diastole. Impaired filling of the heart chambers reduces the volume of blood ejected by the heart with each contraction. The patient often complains of shortness of breath. On physical examination, elevated neck veins, ascites, hepatic enlargement, and lower extremity edema often are found. Surgical stripping of the pericardium (pericardiectomy) is used to relieve the constriction.

**external p.** Inflammation of the exterior surface of the pericardium.

**fibrinous p.** Pericarditis in which the membrane is covered with a butter-like exudate that organizes and unites the pericardial surfaces.

**SYMPTOMS:** The condition is characterized by symptoms of heart failure (e.g., dyspnea, generalized edema, cyanosis).

**hemorrhagic p.** Pericarditis in which the exudate contains blood.

**idiopathic p.** Acute nonspecific pericarditis.

**ischemic p.** Pericarditis resulting from myocardial infarction.

**neoplastic p.** Pericarditis due to invasion of the pericardium by cancer.

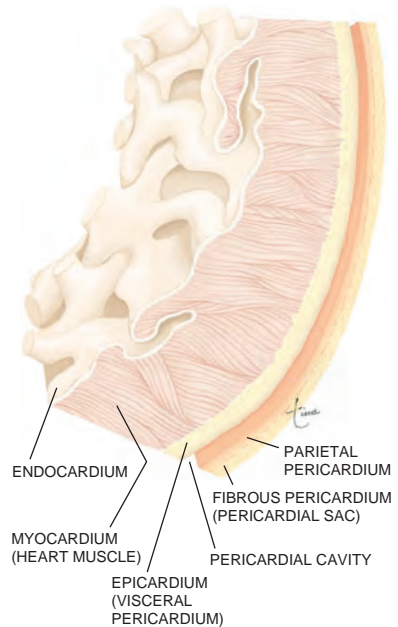
**p. obliterans** Pericardial inflammation causing adhesions and obliteration of the pericardial cavity.

**serofibrinous p.** Pericarditis in which there is a considerable quantity of serous exudate but little fibrin.

**uremic p.** Pericarditis associated with end-stage renal failure or hemodialysis. It indicates the need for more frequent or more intensive dialysis.

**pericardium** (pĕr'ĭ-kār'dĕ-ŭm) [Gr. *peri*, around, + *kardia*, heart] The membranous fibroserous sac enclosing the heart and the bases of the great vessels. Its three layers are the fibrous pericardium (the outer layer); the parietal pericardium, a serous membrane that lines

the fibrous pericardium; and the visceral pericardium (epicardium), a serous membrane on the surface of the myocardium. The space between the two serous layers is the pericardial cavity, a potential space filled with serous fluid that reduces friction as the heart beats. Its base is attached to the diaphragm, its apex extending upward as far as the first subdivision of the great blood vessels. It is attached in front to the sternum, laterally to the mediastinal pleura, and posteriorly to the esophagus, trachea, and principal bronchi. **SEE: illus.**



**PERICARDIUM AND LAYERS OF THE HEART WALL**

**adherent p.** A condition in which fibrous bands form between the two serous layers of the pericardium, obliterating the pericardial cavity. **SEE: pericarditis, constrictive.**

**bread-and-butter p.** A pathological appearance seen in fibrinous pericarditis, in which the pericardium has a peculiar appearance as a result of fibrous deposits on the two opposing surfaces.

**fibrous p.** The outer fibrous layer of the pericardium; it extends over the bases of the great vessels and the upper surface of the diaphragm.

**parietal p.** The middle layer of the pericardial sac, a serous membrane lining the fibrous pericardium.

**serous p.** A flattened sac formed of a

single layer of cells and connective tissue.

**shaggy p.** A condition occurring in fibrinous pericarditis in which loose shaggy deposits of fibrin are seen on the surfaces of the pericardium.

**visceral p.** The side of the sac attached to the external surface of the heart. SYN: *epicardium*.

**pericecitis** (pĕr'ī-sē-sī'tis) [ " + " + " ] Inflammation surrounding the cecum.

**pericellular** (pĕr'ī-sĕl'ū-lār) [ " + L. *cellula*, cell] Around a cell.

**pericemental** (pĕr'ī-sē-mĕn'tāl) [ " + L. *caementum*, cement] Concerning the pericementum (i.e., the periodontal ligament).

**pericementitis** (pĕr'ī-sē-mĕn-tī'tis) [ " + " + Gr. *itis*, inflammation] Periodontitis.

**apical p.** Apical abscess of the tooth.

**pericementum** (pĕr'ī-sē-mĕn'tūm) Periodontal ligament.

**pericholangitis** (pĕr'ī-kō-lān-jī'tis) [Gr. *peri*, around, + *chole*, bile, + *angion*, vessel, + *itis*, inflammation] Inflammation of tissues surrounding a bile duct. SYN: *periangiocholitis*.

**pericholecystitis** (pĕr'ī-kō-lĕ-sis-tī'tis) [ " + " + *kystis*, a sac, + *itis*, inflammation] Inflammation of tissues situated around the gallbladder.

**perichondritis** (pĕr'ī-kōn-drī'tis) [ " + " + *itis*, inflammation] Inflammation of the perichondrium.

**perichondrium** (pĕr-ī-kōn'drĕ-ūm) [ " + *chondros*, cartilage] Fibrous connective tissue that surrounds cartilage.

**perichondroma** (pĕr'ī-kōn-drō'mā) [ " + " + *oma*, tumor] A tumor arising from fibrous tissue that covers cartilage.

**perichorioidal, perichoroidal** (pĕr'ī-kō-rĕ-oy'dāl, -roy'dāl) [ " + *chorioeides*, skinlike] Situated around the choroid coat.

**pericolic** (pĕr-ī-kō'lik) [ " + *kolon*, colon] Around or encircling the colon.

**pericolitis** (pĕr'ī-kō-lī'tis) [ " + " + " ] Inflammation surrounding the colon.

**periculpitis** (pĕr'ī-kōl-pī'tis) [Gr. *peri*, around, + *kolpos*, vagina, + *itis*, inflammation] Inflammation of connective tissues surrounding the vagina.

**pericorneal** (pĕr'ī-kor'nĕ-āl) [ " + L. *cornu*, horn] Placed around the cornea.

**pericoronal** (pĕr'ī-kor'ō-nāl) [ " + *korone*, crown] Around the crown of a tooth.

**pericoronitis** (pĕr'ī-kor'ō-nī'tis) [ " + " + *itis*, inflammation] Abscess around the crown of an unerupted molar. SYN: *pericoronal abscess*.

**pericranial** (pĕr'ī-krā'nĕ-āl) [ " + *kranion*, skull] Pert. to the periosteum of the skull.

**pericranitis** (pĕr'ī-krā-nī'tis) [ " + " + *itis*, inflammation] Inflammation of the pericranium.

**pericranium** (pĕr'ī-krā'nĕ-ūm) The fi-

brous membrane surrounding the cranium; periosteum of the skull.

**pericystic** (pĕr'ī-sīs'tik) [ " + *kystis*, bladder] Surrounding a cyst.

**pericystitis** (pĕr'ī-sis-tī'tis) [ " + " + *itis*, inflammation] Inflammation of the tissues about the bladder.

**pericyte** (pĕr'ī-sīt) [ " + *kytos*, cell] A stem cell that may give rise to smooth muscle cells; often found around capillaries.

**pericytal** (pĕr-ī-sīsh'āl) [ " + *kytos*, cell] Placed around a cell.

**peridens** (pĕr'ī-dĕns) [ " + L. *dens*, tooth] A supernumerary tooth not situated in the dental arch.

**peridental** (pĕr'ī-dĕn'tāl) [ " + L. *dens*, tooth] Surrounding a tooth or part of one. SYN: *periodontal*.

**peridentitis** (pĕr-ĕ-dĕn-tī'tis) [ " + " + *itis*, inflammation] Inflammation of tissues surrounding a tooth. SYN: *periodontoclasia*.

**peridentium** (pĕr'ī-dĕn'tĕ-ūm) [ " + L. *dens*, tooth] Periodontium.

**periderm** (pĕr'ĕ-dĕrm) [ " + *derma*, skin] A thin layer of flattened cells forming a transient layer of embryonic epidermis. SYN: *epitrichial layer*; *epitrichium*.

**peridesmitis** (pĕr'ī-dĕz-mī'tis) [ " + *desmion*, band, + *itis*, inflammation] Inflammation of the areolar tissue around a ligament.

**peridesmium** (pĕr'ī-dĕz-mĕ-ūm) The connective tissue membrane sheathing a ligament.

**perididymis** (pĕr'ī-dīd'ī-mīs) [ " + *didymos*, testicle] The tunica vaginalis of the testicle.

**perididymitis** (pĕr'ī-dīd'ī-mī'tis) [ " + " + *itis*, inflammation] Inflammation of the perididymis.

**peridiverticulitis** (pĕr'ī-dī'vĕr-tīk'ū-lī'tis) [ " + L. *diverticulare*, to turn aside, + Gr. *itis*, inflammation] Inflammation of tissues situated around an intestinal diverticulum.

**periductal** (pĕr-ī-dūk'tāl) [ " + L. *ductus*, a passage] Situated around a duct.

**periduodenitis** (pĕr'ī-dū'ō-dĕ-nī'tis) [ " + L. *duodeni*, twelve, + Gr. *itis*, inflammation] Inflammation around the duodenum, often causing adhesions attaching it to the peritoneum.

**peridural** (pĕr'ī-dū'rāl) [ " + L. *durus*, hard] Outside the dura mater.

**periencephalitis** (pĕr'ĕ-ĕn-sĕf'ā-lī'tis) [ " + *enkephalos*, brain, + *itis*, inflammation] Inflammation of the surface of the brain.

**periencephalomeningitis** (pĕr'ĕ-ĕn-sĕf'ā-lō-mĕn'in-jī'tis) [ " + " + *meninx*, membrane, + *itis*, inflammation] Inflammation of the cerebral cortex and meninges.

**periendothelioma** (pĕr'ĕ-ĕn'dō-thĕ'lĕ-ō'mā) [ " + *endon*, within, + *thele*, nipple, + *oma*, tumor] A tumor aris-

ing from the endothelium of the lymphatics and the perithelium of blood vessels.

**perienteric** (pĕr'ē-ĕn-tĕr'ĭk) [Gr. *peri*, around, + *enteron*, intestine] Around the intestines.

**perienteritis** (pĕr'ē-ĕn'tĕr-ĭ'tis) [" + " + *itis*, inflammation] Inflammation of the intestinal peritoneum.

**perienteron** (pĕr'ē-ĕn'tĕr-ŏn) [" + *enteron*, intestine] The peritoneal cavity of the embryo.

**periesophagitis** (pĕr'ē-ĕ-sŏf'ă-jĭ'tis) [" + *oisophagos*, esophagus, + *itis*, inflammation] Inflammation of the tissues around the esophagus.

**perifistular** (pĕr-ĭ-fĭs'tū-lĕr) [" + *L. fistula*, pipe] Located around a fistula.

**perifocal** (pĕr'ĭ-fŏ-kăł) [" + *L. focus*, hearth] Around a focus, esp. around an infected focus.

**perifollicular** (pĕr'ĭ-fŏl-ĭk'ū-lăr) [" + *L. folliculus*, a little sac] Around a follicle.

**perifolliculitis** (pĕr'ĭ-fŏ-ĭk'ū-lĭ'tis) [" + " + *Gr. itis*, inflammation] Inflammation around hair follicles.

**perigangliitis** (pĕr'ĭ-găng'ĭĕ-tis) [" + *ganglion*, knot, + *itis*, inflammation] Inflammation around a ganglion.

**periganglionic** (pĕr'ĭ-găng'ĭĕ-ŏn'ĭk) [" + *ganglion*, knot] Around a ganglion.

**perigastritis** (pĕr'ĭ-găs-trĭ'tis) [" + " + *itis*, inflammation] Inflammation of the peritoneal covering of the stomach.

**periglandulitis** (pĕr'ĭ-glăn'dū-lĭ'tis) [" + *L. glandula*, small gland, + *Gr. itis*, inflammation] Inflammation of tissues around a gland.

**perihepatic** (pĕr'ĭ-hĕ-păt'ĭk) [Gr. *peri*, around, + *hepar*, liver] Around the liver.

**perihepatitis** (pĕr'ĭ-hĕp-ăt-tĭ'tis) [" + " + *itis*, inflammation] Inflammation of the peritoneal covering of the liver, e.g., in Fitz-Hugh-Curtis syndrome.

**perihernial** (pĕr'ĭ-hĕr'nĕ-ăl) [" + *L. hernia*, rupture] Around a hernia.

**perijejunitis** (pĕr'ĭ-jĕ-jū-nĭ'tis) [" + *L. jejunum*, empty, + *Gr. itis*, inflammation] Inflammation of tissues around the jejunum.

**perikaryon** (pĕr'ĭ-kăr'ĕ-ŏn) [" + *kar-yon*, nucleus] The cell body of a neuron.

**perikeratic** (pĕr'ĭ-kĕr-ăt'ĭk) [" + *keras*, horn] About the cornea. SYN: *pericornal*.

**perikymata** (pĕr'ĭ-kĭ-mă-tă) [" + *kyma*, wave] The transverse wavelike grooves most apparent in the surface enamel of newly erupted anterior teeth; they are more pronounced at eruption and are reduced in depth with wear in advancing age.

**perilabyrinthitis** (pĕr'ĭ-lăb'ĭr-in-thĭ'tis) [" + *labyrinthos*, a maze of canals, + *itis*, inflammation] Inflammation around the labyrinth.

**perilaryngeal** (pĕr'ĭ-lă-rĭn'jĕ-ăl) [" + *larynx*, larynx] Around the larynx.

**perilaryngitis** (pĕr'ĭ-lăr'in-jĭ'tis) [" + " + *itis*, inflammation] Inflammation around the larynx.

**perilenticular** (pĕr'ĭ-lĕn-tĭk'ū-lăr) [" + *L. lenticularis*, pert. to a lens] Around the lens of the eye.

**perilingual** (pĕr'ĭ-ling'gwĭł) [" + "] Occurring during the development of speech and language.

**perilymph, perilymphea** (pĕr'ĭ-lĭmf, pĕr'ĭ-lĭm'fă) [" + *L. lymphea*, serum] The pale, transparent fluid within the bony (not the vestibular) labyrinth of the inner ear.

**perilymphangeal** (pĕr'ĭ-lĭm-făn'jĕ-ăl) [" + " + *Gr. angeion*, vessel] Around a lymphatic vessel.

**perilymphangitis** (pĕr'ĭ-lĭmf-ăn-jĭ'tis) [" + " + " + *itis*, inflammation] Inflammation of tissues around a lymphatic vessel.

**perimastitis** (pĕr'ĭ-măs-tĭ'tis) [" + *mastos*, breast, + *itis*, inflammation] Inflammation of the fibrous tissue around a breast.

**perimeningitis** (pĕr'ĭ-mĕn'in-jĭ'tis) [Gr. *peri*, around, + *meninx*, membrane, + *itis*, inflammation] Pachymeningitis.

**perimenopause** (pĕr-ĕ-mĕn'ŏ-păwz) The phase prior to the onset of menopause (known as the menopausal transition) and the first year after menopause. It includes three distinct elements: the time during which menstrual cycles become increasingly less regular and follicle stimulating hormones rise; the last menstrual period; and the first 12 consecutive months during which no menses occur.

**perimeter** (pĕr-ĭm'ĕ-tĕr) [" + *metron*, measure] **1.** The outer edge or periphery of a body or measure of the same. **2.** A device for determining the extent of the field of vision. SEE: *perimetry*.

**perimetric** (pĕr'ĭ-mĕt'ĭk) [" + *metra*, uterus] Around the uterus.

**perimetritic** (pĕr'ĭ-mĕ-trĭt'ĭk) [" + *metra*, uterus, + *itis*, inflammation] Concerning perimetritis.

**perimetritis** (pĕr'ĭ-mĕ-trĭt'is) [" + " + *itis*, inflammation] Inflammation of the peritoneal covering of the uterus; may be associated with parametritis.

**perimetrium** (pĕr-ĭ-mĕ'trĕ-ŭm) The serous layer of the uterus.

**perimetry** (pĕr-ĭm'ĕ-trĕ) [" + *metron*, measure] **1.** Circumference; edge; border of a body. **2.** Measurement of the scope of the field of vision with a perimeter.

**kinetic p.** A test of visual field impairment in which a person's ability to see peripherally placed objects is assessed by moving the objects but keeping their size and brightness unchanged.

**static p.** A test of visual field impairment in which a person's ability to see



objects at the edges of the visual field is assessed by changing the brightness or size of the objects but not their position.

**perimetric**, *adj.*

**perimyelitis** (pĕr'ī-mī'ē-lī'tīs) [ʹ + ʹ + *itis*, inflammation] **1.** Inflammation of the pia mater and arachnoid of the brain or spinal cord. SYN: *leptomeningitis*. **2.** Inflammation of the endosteum or membrane around medullary cavity of a bone.

**perimyelography** (pĕr'ī-mī'ē-lŏg'rā-fē) [ʹ + ʹ + *graphein*, to write] Radiological examination of the area around the spinal cord.

**perimyocarditis** (pĕr'ī-mī'ō-ĕn'dŏ-kār-dī'tīs) [ʹ + *mys*, muscle, + *endon*, within, + *kardia*, heart, + *itis*, inflammation] Inflammation of the muscular wall of the heart, its endothelial lining, and the pericardium.

**perimyolysis** (pĕr'ē-mī'ō-lī'sīs) Loss of enamel from the lingual surface of the anterior teeth. A complication of repeated bouts of regurgitation (e.g., as in bulimia nervosa). Another dental complication of bulimia is the development of multiple dental caries.

**perimyositis** (pĕr'ī-mī'ō-sī'tīs) [ʹ + ʹ + *itis*, inflammation] Inflammation of the connective tissue around a muscle.

**perimysia** (pĕr'ī-mīs'ē-ā) Pl. of perimysium.

**perimysiitis** (pĕr'ī-mīs'ē-ī'tīs) [ʹ + *mys*, muscle, + *itis*, inflammation] Inflammation of the sheath surrounding a muscle.

**perimysium** (pĕr'ī-mīs'ē-ūm) *pl.* **perimysia** A connective tissue sheath that envelops each primary bundle of muscle fibers; sometimes called perimysium internum.

**perinatal** (pĕr'ī-nā'tāl) [Gr. *peri*, around, + L. *natalis*, birth] Concerning the period beginning after the 28th week of pregnancy and ending 28 days after birth.

**perinatal programming** The triggering of illnesses in adults by events that occurred during development within the womb.

**perinatology** (pĕr-ĕ-nā-tŏl'ŏ-jē) The study of the fetus and infant during the perinatal period. SEE: *perinatal*.

**perineal** (pĕr'ī-nē'āl) [Gr. *perinaion*, perineum] Concerning, or situated on, the perineum.

**perineal body** A mass of tissue that separates the anus from the vestibule and the lower part of the vagina.

**perineo-** [Gr. *perinaion*] Combining form meaning *perineum*.

**perineocele** (pĕr'ī-nē'ŏ-sel) [Gr. *perinaion*, perineum, + *kele*, tumor, swelling] A hernia in the region of the perineum, between the rectum and vagina or between the rectum and prostate. SYN: *perineal hernia*.

**perineometer** (pĕr'ī-nē-ŏm'ē-ter) [Gr.

*perinaion*, perineum, + *metron*, measure] An apparatus for measuring the pressure or force that is produced in the vagina when the pubococcygeus and levator ani muscles are contracted voluntarily. SEE: *Kegel exercise*.

**perineoplasty** (pĕr'ī-nē'ŏ-plās'tē) [ʹ + *plassein*, to form] Reparative surgery on the perineum.

**perineorrhaphy** (pĕr'ī-nē-or'ā-fē) [ʹ + *rhaphe*, a sewing] Suture of the perineum to repair a laceration that occurs or is made surgically during the delivery of the fetus.

**PATIENT CARE:** Caregivers should implement standard precautions, wearing disposable gloves throughout perineal assessment, patient care, and disposal of biohazardous wastes, and performing thorough hand hygiene before and after procedures. Assessments focus on diet and fluid intake, bowel elimination, and the status of the suture line. To minimize potential for autoinfection, patient care and teaching should emphasize cleansing the perineum from front to rear after urination or defecation with a cascade of warm fluid or an antiseptic towelette. Perineal pads also should be applied and removed from front to rear. Application of an ice pack immediately after delivery and intermittently during the first 24 hr postpartum aids in reducing edema and relieving discomfort. To maximize effects, the ice pack should be removed 20 min after its placement and reapplied 10 min later and the mother taught this 20 min on, 10 min off regimen. The use of warm Sitz baths for 20 min several times daily is encouraged. Personal portable Sitz baths avoid the possibility of cross-contamination and may be sent home with the mother. Pain is assessed and analgesics are administered as prescribed. Ambulation also is encouraged. Gluteal splinting (i.e., tensing the buttocks while sitting or rising from a seated position) reduces discomfort. Health care professionals should provide support and reassurance because the patient may experience anxiety about the ability to resume normal physical functions and sexual activity and should provide opportunities for the patient to express feelings and to ask questions.

**anterior p.** Surgical repair of anterior perineum and vaginal wall to correct a cystocele.

**posterior p.** The removal and repair of a rectocele.

**perineoscrotal** (pĕr'ī-nē-ŏ-skrŏ'tāl) [ʹ + L. *scrotum*, a bag] Concerning the perineum and scrotum.

**perineotomy** (pĕr'ī-nē-ŏt'ŏ-mē) [ʹ + *tome*, incision] Surgical incision into the perineum. SYN: *perineal section*.

**perinephric** (pĕr'ī-nēf'rik) [Gr. *peri*,

around, + *nephros*, kidney] Located or occurring around the kidney.

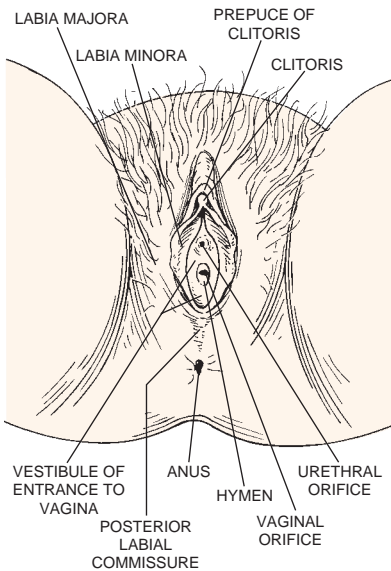
**perinephritis** (pĕr'ī-nĕ-frī'tīs) [" + " + *itis*, inflammation] Inflammation of peritoneal tissues around the kidney.

**perinephrium** (pĕr'ī-nĕf-rĕ-ūm) The connective and fatty tissue surrounding the kidney. **perinephrial**, *adj.*

**perineum** (pĕr'ī-nĕ-ūm) [Gr. *perinaion*]

1. The structures occupying the pelvic outlet and constituting the pelvic floor.

2. The external region between the vulva and anus in a female or between the scrotum and anus in a male. It is made up of skin, muscle, and fasciae. The muscles of the perineum are the anterior portion of the intact levator ani muscle and the transverse perineal muscle. **SEE: illus.; perineal body.**



### PERINEUM

**tears of the p.** Laceration of the perineum during delivery. There are four degrees of severity caused by overstretching of the vagina and perineum during delivery. Fetal malposition increases the chance of tears occurring.

A first-degree tear involves superficial tissues of the perineum and vaginal mucosa but does not injure muscular tissue. A second-degree tear involves those tissues included in a first-degree tear and the muscles of the perineum but not the muscles of the anal sphincter. A third-degree tear involves all of the tissues of the second-degree tear and the muscles of the anal sphincter. A fourth-degree tear extends completely through the perineal skin, vaginal mucosa, perineal body, anal sphincter muscles, and the rectal mucosa.

Complications include hemorrhage, infection, cystocele, rectocele, descent of uterus, and occasionally loss of bowel control. Surgery is necessary to treat this condition.

**perineural** (pĕr'ī-nū-rāl) [Gr. *peri*, around, + *neuron*, nerve] Around a nerve.

**perineurial** (pĕr'ī-nū-rĕ-āl) [" + *neuron*, sinew] Concerning the perineurium, the sheath around a bundle of nerve fibers.

**perineuritis** (pĕr'ī-nū-rī'tīs) [" + " + *itis*, inflammation] Inflammation of the sheath enveloping nerve fibers.

**perineurium** (pĕr'ī-nū-rĕ-ūm) [" + *neuron*, sinew] A connective tissue sheath investing a fasciculus or bundle of nerve fibers.

**perinuclear** (pĕr'ī-nū'klĕ-ār) [" + L. *nucleus*, a kernel] Around a nucleus.

**periocular** (pĕr'ĕ-ōk'ū-lār) [" + L. *oculus*, eye] Located around the eye. **SYN: circumocular.**

**period** (pĕr-ĕ-ūd) [L. *periodus*] 1. The interval between two successive occurrences of any regularly recurring phenomenon or event; a cycle. 2. Colloquial expression for the menstrual flow. 3. Time occupied by a disease in running its course, or by a stage of a disease, such as an incubation period.

**absolute refractory p.** Following contraction of a muscle fiber or transmission of a nerve impulse by a neuron, the period in which a stimulus, no matter how strong, will not elicit a response.

**effective refractory p.** In electrocardiography, the interval during which a second action potential cannot occur in an excitable fiber unless the stimulus is much stronger than usual; the membrane is still in the repolarization phase of the previous action potential.

**isoelectric p.** 1. In an occurrence that normally produces an electric force, such as a muscle contraction, the time or point when no electrical energy is produced. 2. In an electrocardiogram, the period when the electrical tracing is neither positive nor negative.

**isometric p.** Postsphygmic p.

**postsphygmic p.** The short period in diastole when the ventricles are relaxed and no blood is entering. This lasts until the atrioventricular valves open. **SYN: isometric period.**

**presphygmic p.** The short period in systole beginning with closing of the atrioventricular valves and ending with opening of the valves connecting the right and left ventricles to the pulmonary artery and aorta, respectively.

**relative refractory p.** The period after activation of a nerve or muscle, during recovery, when it can be excited only by a stronger-than-normal stimulus.

**silent p.** 1. The time in the course of a disease in which the signs and symp-

toms are so mild as to be difficult to detect. **2.** A pause in normally continuous electrical events such as an electrocardiogram (ECG) or electroencephalogram (EEG). **3.** A period in a tendon reflex that immediately follows the contraction of the responding muscles during which the motor neurons do not respond to afferent impulses entering the reflex center.

**periodic** (pēr-ē-ōd'īk) [Gr. *periodikos*] Recurring after definite intervals.

**periodic abstinence** A method of birth control in which a couple tries to avoid pregnancy by refraining from sexual intercourse during certain times within the menstrual cycle.

**periodic catatonia** An inherited form of schizophrenia characterized by psychomotor disturbances, including grimacing, stereotyped body movements, and hyperkinetic movements alternating with mutism, staring, and body posturing. Susceptibility to this condition has been linked to genes on chromosome 15.

**periodic health examination** A health screening examination performed on a scheduled or routine basis. The appropriate features of this examination depend on the patient's age, gender, and sometimes health history, family history, or employment status. Adult women, for example, should have periodic examinations, including Pap smears and professional breast examinations, whereas professional pilots and truckers are screened periodically for visual impairment and hypertension, among other conditions. All adults over age 45 should be screened for diabetes mellitus. Patients with a personal history of cancer may be screened periodically for evidence of disease recurrence.

For many patients, the periodic examination may include blood tests (e.g., to check levels of cholesterol and other lipids), immunological tests (e.g., health care workers are periodically screened for tuberculosis), or invasive examinations (e.g., sigmoidoscopy or colonoscopy to look for colon cancer). SEE: *mammography*; *Papanicolaou test*; table under *cancer*.

**periodicity** (pēr'ē-ō-dis'ī-tē) **1.** The state of being regularly recurrent. **2.** The rate of rise and fall or interruption of a unidirectional current in physical therapy.

**periodic leg movements in sleep** ABBR: PLMS. Jerking or twitching of the toes, ankles, knees, or hips during sleep.

**periodic table** A chart with the chemical elements arranged by their atomic numbers. SEE: *law, periodic*.

**periodontal** (pēr'ē-ō-dōn'tāl) [Gr. *peri*, around, + *odous*, tooth] Located around a tooth. SYN: *peridental*.

**p. disease** A disease of the supporting structures of the teeth, the periodontium, including alveolar bone to which

the teeth are anchored. The most common initial symptom is bleeding gums, but loosening of the teeth, receding gums, abscesses in pockets between the gums and the teeth, and necrotizing ulcerative gingivitis may be present as the disease process worsens. Proper dental hygiene, including proper brushing of the teeth, use of dental floss, gum massage, and periodic removal of plaque by a dentist or dental hygienist, will help to prevent periodontal disease.

**TREATMENT:** In the early stages of the disease, curettage of the irritating material—plaque and calculus (tartar)—from the crown and root surfaces of the teeth may be the only treatment required. In more advanced stages, procedures such as gingivectomy, gingivoplasty, and correction of the bony architecture of the teeth may be required. Adjustment of the occlusion of the teeth and orthodontic treatment may be used in order to help prevent recurrences. SEE: *plaque; teeth; tooth; toothbrushing*.

**PATIENT CARE:** Dental professionals teach the patient about the importance of proper dental care, including brushing for two minutes twice a day, flossing, and regular dental examinations and prophylaxis. Patients should consult a dentist if recession of teeth from gums, any drainage from gums, or bleeding gums occur, because these symptoms may indicate periodontal disease. The patient may also need medical follow-up to ascertain whether or not hypovitaminosis, blood dyscrasias, diabetes mellitus, or use of hormonal contraceptive drugs are contributing to or causing the dental problems.

**p. pocket reduction** Pocket reduction.

**periodontal pocket** SEE: under *pocket*.

**periodontia** (pēr'ē-ō-dōn'shē-ā) [Gr. *peri*, around, + *odous*, tooth] **1.** Plural of periodontium. **2.** Periodontics.

**periodontics** (pēr'ē-ō-dōn'tiks) [" + *odous*, tooth] The branch of dentistry dealing with treatment of diseases of the supporting tissues of the teeth, the periodontium. SYN: *periodontia* (2); *periodontology*.

**periodontitis** (pēr'ē-ō-dōn-tī'tis) [" + " + *itis*, inflammation] Inflammation or degeneration, or both, of the dental periosteum, alveolar bone, cementum, and adjacent gingiva. Suppuration usually occurs, supporting bone is resorbed, teeth become loose, and recession of gingivae occurs. This condition usually follows chronic gingivitis, Vincent's infection, or poor dental hygiene. Systemic factors may also predispose one to this condition. SYN: *Riggs' disease*. SEE: table.

**aggressive p.** ABBR: AgP. Periodontitis in which alveolar bone loss and ligament failure occur rapidly, resulting



## Symptoms and Signs of Periodontitis

- Gums bleed during brushing or flossing
- Gums are puffy or swollen
- Gums have a bright red appearance
- Gum line has receded, giving the teeth a longer appearance
- Bad breath persists even after brushing and flossing

in dental mobility and sometimes exfoliation (loss of teeth). The disease often begins in adolescence and may cluster in families. SYN: *rapidly progressive periodontitis*.

**apical p.** Periodontitis of the periapical region usually leading to formation of periapical abscess.

**chronic p.** Periodontitis in which there is gradual and persistent evidence of periodontal pocket formation, injury to the ligamentous attachments of the teeth, alveolar bone destruction, and eventually, dental loosening.

**early p.** Periodontitis in which, despite mild-to-moderate pocket formation and some bone loss, there is no evidence of abnormal tooth movement.

**moderate p.** Periodontitis in which moderate bone loss and pocket formation are accompanied by abnormal tooth mobility.

**rapidly progressive p.** Aggressive periodontitis.

**periodontium** (pĕr-ē-ō-dŏn'shē-ŭm) The structures that support the teeth, cushion the shock of chewing, and keep the teeth firmly anchored in the bone. These structures are the gingivae, periodontal membrane or ligament, cementum, and alveolar bone.

**periodontoclasia** (pĕr'ē-ō-dŏn'tō-klā'zē-ă) [" + *odous*, tooth, + *klasis*, breaking] A condition characterized by inflammation accompanied by degenerative and retrogressive changes in the periodontium. SYN: *periodontitis*.

**periodontology** (pĕr'ē-ō-dŏn-tŏl'ō-jē) [" + " + *logos*, word, reason] Periodontics.

**periodontosis** (pĕr'ē-ō-dŏn-tō'sis) [" + " + *osis*, condition] Any degenerative disease of the periodontal tissues.

**perioscope** (pĕr'ē-ōd'ō-skŏp) [LL. *periodus*, interval of time, + *skopein*, to examine] A table or dial for the calculation of the expected date of delivery. SEE: *pregnancy* for table.

**period of reactivity** In obstetrics, an initial episode of activity, alertness, and responsiveness to interaction, characteristic of the physiological and social responses of newborns to stimuli. The first period of reactivity begins with birth, lasts approx. 30 min, and ends

when the infant falls into a deep sleep. Common assessment findings include transient tachypnea, nasal flaring, sternal retraction, crackles, tachycardia, and irregular heart rhythms. The second period of reactivity begins when the infant awakens and usually lasts 4 to 6 hr. Common assessment findings include signs of excessive respiratory and gastric mucus, hunger, apneic episodes, and the passing of a meconium stool.

**periomphalic** (pĕr'ē-ōm-fāl'ik) [Gr. *peri*, around, + *omphalos*, navel] Located around or near the umbilicus.

**perionychia** (pĕr'ē-ō-nik'ē-ă) [" + *onyx*, nail] Inflammation around a nail.

**perionychium** (pĕr'ē-ō-nik'ē-ŭm) The epidermis surrounding a nail.

**perionyx** (pĕr'ē-ō'niks) [" + *onyx*, nail] The remnant of the eponychium that persists as a band across the root of the nail.

**perionyxis** (pĕr'ē-ō-nik'sis) Inflammation of the epidermis surrounding a nail.

**perioophoritis** (pĕr'ē-ō-ŏf'ō-rī'tis) [" + *oophoron*, ovary, + *itis*, inflammation] Inflammation of the surface membrane of the ovary. SYN: *periothecitis*.

**perioophorosalingitis** (pĕr'ē-ō-ŏf'ō-rō-sāl'pīn-jī'tis) [" + " + *salpinx*, tube, + *itis*, inflammation] Inflammation of the tissues around an ovary and oviduct. SYN: *periothecosalingitis*.

**periothecitis** (pĕr'ē-ō-ŏ-thē-sī'tis) [" + *oon*, egg, + *theke*, box, + *itis*, inflammation] Perioophoritis.

**periothecosalingitis** (pĕr'ē-ō-ŏ-thē'kō-sāl'pīn-jī'tis) [" + " + " + *salpinx*, tube, + *itis*, inflammation] Perioophorosalingitis.

**perioperative** (pĕr-ē-ŏp'ēr-ă-tīv) Occurring in the period immediately before, during, and/or after surgery.

**perioperative period** The time immediately before, during, and after surgery.

**perioral** (pĕr'ē-or'āl) [" + L. *oralis*, mouth] Surrounding the mouth. SYN: *circumoral*.

**periorbita** (pĕr'ē-or'bi-tă) [" + L. *orbita*, orbit] Connective tissue lining the socket of the eye.

**periorbital** (pĕr'ē-or'bi-tāl) Surrounding the socket of the eye. SYN: *circumorbital*.

**periorbititis** (pĕr'ē-or'bi-tī'tis) [" + L. *orbita*, orbit, + Gr. *itis*, inflammation] Inflammation of the periorbita.

**periorchitis** (pĕr'ē-or-kī'tis) [" + *orchis*, testicle, + *itis*, inflammation] Inflammation of the tissues investing a testicle.

**p. hemorrhagica** A chronic hematocoele of the tunica vaginalis of the testis.

**periosteitis** (pĕr'ē-ōs'tē-ī'tis) [" + " + *itis*, inflammation] Perioistitis.

**periosteoma** (pĕr'ē-ōs-tē-ō'mă) [" + " + *oma*, tumor] 1. An abnormal growth surrounding a bone. 2. A tumor of the

periosteum, the tissue surrounding a bone.

**periosteomyelitis** (pěr"ē-ōs"tē-ō-mī"ē-lī'tis) [" + " + *myelos*, marrow, + *itis*, inflammation] Inflammation of bone, including the periosteum and marrow. SYN: *periostomedullitis*.

**periosteophyte** (pěr"ē-ōs'tē-ō-fit) [" + *osteon*, bone, + *phyton*, growth] An abnormal bony growth on the periosteum, or arising from it.

**periosteorrhaphy** (pěr"ē-ōs'tē-or'ā-fē) [" + " + *rhaphē*, seam, ridge] Joining by suture the margins of a severed periosteum.

**periosteotome** (pěr"ē-ōs'tē-ō-tōm) [" + *osteon*, bone, + *tome*, incision] An instrument for cutting the periosteum or removing it from the bone.

**periosteotomy** (pěr"ē-ōs-tē-ō-tō-mē) Incision into the periosteum.

**periosteum** (pěr-ē-ōs'tē-ūm) [Gr. *periosteon* ] The fibrous membrane that forms the covering of bones except at their articular surfaces; consists of a dense external layer containing numerous blood vessels and an inner layer of connective tissue cells that function as osteoblasts when the bone is injured and then participate in new bone formation. Periosteum serves as a supporting structure for blood vessels nourishing bone and for attachment of tendons and ligaments.

**alveolar p.** Periodontal ligament.

**p. externum** Periosteum covering external surfaces of bones.

**p. internum** Interior periosteum lining the marrow canal of a bone.

**periostitis** (pěr"ē-ōs-tī'tis) [" + *itis*, inflammation] Inflammation of the periosteum, the membrane covering a bone. Findings include pain over the affected part, esp. under pressure; fever; sweats; leukocytosis; skin inflammation, and rigidity of overlying muscles. Infectious diseases, esp. syphilis, and trauma cause this condition. SYN: *periosteitis*.

**albuminous p.** Periostitis with albuminous serous fluid exudate beneath the membrane affected.

**alveolar p.** Periodontitis.

**diffuse p.** Periostitis of the long bones.

**hemorrhagic p.** Periostitis with extravasation of blood under the periosteum.

**periostoma** (pěr"ē-ōs-tō'mā) [Gr. *peri*, around, + *osteon*, bone, + *oma*, tumor] A bony neoplasm around a bone or arising from its membranous sheath.

**periostomedullitis** (pěr"ē-ōs'tō-mēd-ū-lī'tis) [" + " + L. *medulla*, marrow, + Gr. *itis*, inflammation] Periosteomyelitis.

**periostosis** (pěr"ē-ōs-tō'sis) [" + " + *osis*, condition] A bony neoplasm around a bone or arising from it.

**periostosteitis** (pěr"ē-ōs-tōs'tē-ī'tis) ["

+ " + *osteon*, bone, + *itis*, inflammation] Osteoperiostitis.

**periostotome** (pěr"ē-ōs'tō-tōm) [" + " + *tome*, incision] Periosteotome.

**periostotomy** (pěr"ē-ōs-tōt'ō-mē) [" + " + *tome*, incision] Periosteotomy.

**periotic** (pěr-ē-ō'tik) [" + *ous*, ear] Situated around the ear, esp. the internal ear.

**periovular** (pěr"ē-ō'vū-lār) [" + L. *ovulum*, little egg] Around an ovum.

**peripachymeningitis** (pěr"ī-pak"ēmēn"īn-jī'tis) [" + *pachys*, thick, + *meninx*, membrane, + *itis*, inflammation] Inflammation of the connective tissue between the dura mater and the bone that encloses the central nervous system.

**peripancreatitis** (pěr"ī-pān"krē-ā-tī'tis) [" + *pankreas*, pancreas, + *itis*, inflammation] Inflammation of the tissues around the pancreas.

**peripatetic** (pěr"ī-pā-tēt'ik) [L. *peripateticus*, to walk about while teaching] Moving from place to place.

**peripersonal** (pěr"ī-pūr'sūn-īl) Near the body; within arm's reach.

**periphacitis** (pěr-ī-fā-sī'tis) [" + *phakos*, lens, + *itis*, inflammation] Inflammation of the capsule of the lens of the eye.

**peripherad** (pěr-īf'ēr-ād) [" + *pherein*, to bear, + L. *ad*, to] In the direction of the periphery.

**peripheral** (pěr-īf'ēr-āl) Located at, or pert. to, the periphery; occurring away from the center.

**peripheral arterial disease** ABBR: PAD. Atherosclerotic disease of the aortoiliac, axillary, carotid, or femoral arteries. It affects more than 8 million Americans, many of whom also have ischemic disease of the coronary arteries or a history of heart attack or stroke. PAD contributes to claudication, amputation, stroke, and other diseases and conditions. SEE: *peripheral vascular disease*.

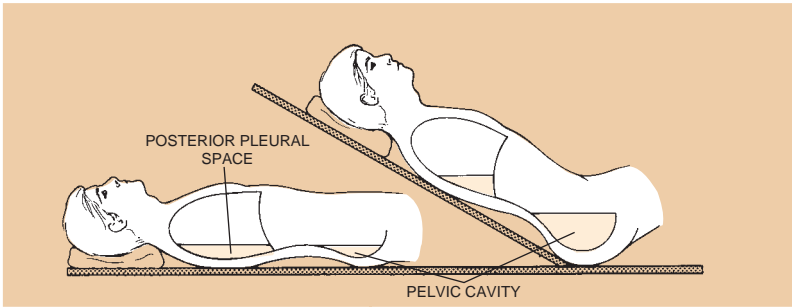
**peripheral nervous system** ABBR: PNS. The portion of the nervous system outside the central nervous system: the 12 pairs of cranial nerves and 31 pairs of spinal nerves. These nerves contain sensory and somatic motor fibers and the motor fibers of the autonomic nervous system.

**peripheral neurovascular dysfunction, risk for** A state for which an individual is at risk of experiencing a disruption in circulation, sensation, or motion of an extremity. SEE: *Nursing Diagnoses Appendix*.

**peripheral vascular disease** ABBR: PVD. Any condition that causes partial or complete obstruction of the flow of blood to or from the arteries or veins outside the chest. Peripheral vascular disease includes atherosclerosis of the carotid, aortoiliac, femoral, and axillary arteries, as well as deep venous thrombo-



- ses of the limbs, pelvis, and vena cava. SEE: *atherosclerosis*; *claudication*; *deep venous thrombosis*; *Nursing Diagnoses Appendix*.
- peripheral zone of the prostate** The lateral border of the prostate gland. Most prostate cancers begin here.
- periphery** (pĕr'ī-f'ĕ-rĕ) [Gr. *periphēria*] The outer part or surface of a body; the part away from the center.
- periplebitis** (pĕr'ī-flĕ-bī'tīs) [Gr. *peri*, around, + *phleps*, vein, + *itis*, inflammation] Inflammation of the external coat of a vein or tissues around it.
- Periplaneta** (pĕr'ī-plā-nĕ'tā) A genus of cockroaches belonging to the order Orthoptera. Roaches contaminate food by mechanically transporting disease-producing bacteria, ova, and protozoa to the food.
- P. americana*** The scientific name for the American cockroach. Domestic infestations by *P. americana* may spread disease to humans by defecating on food or trigger asthma and other allergic reactions in susceptible people. Allergens derived from this cockroach are abbreviated *Per a* by the World Health Organization.
- P. australasiae*** The Australian cockroach.
- peripleural** (pĕr'ī-plū'rāl) [" + *pleura*, rib] Encircling the pleura.
- peripleuritis** (pĕr'ī-plū-rī'tīs) [" + " + *itis*, inflammation] Inflammation of the connective tissues between the pleura and wall of the chest.
- peripolar** (pĕr'ī-pō'lār) [" + L. *polus*, pole] Around a pole.
- peripoleosis** (pĕr'ī-pō-lĕ'sīs) [Gr., a going about] In tissue culture, the collecting of lymphocytes around macrophages.
- periporitis** (pĕr'ī-por-ī'tīs) [Gr. *peri*, around, + L. *porus*, pore, + Gr. *itis*] Multiple abscesses around sweat glands, esp. as a complication of malaria in children.
- periportal tracking** In the evaluation of patients with abdominal injuries, the finding of decreased computerized tomographic attenuation around the portal region of the liver. This should be presumed to represent bleeding, which may require operative intervention.
- periproctic** (pĕr'ī-prōk'tĭk) [" + *proktos*, anus] Around the anus and rectum.
- periproctitis** (pĕr'ī-prōk-tī'tīs) [" + " + *itis*, inflammation] Inflammation of the areolar tissues in the region of the rectum and anus. SYN: *perirectitis*.
- periprostatitis** (pĕr'ī-prōs-tā-tī'tīs) [" + " + *itis*, inflammation] Inflammation of the tissues surrounding the prostate.
- peripylephlebitis** (pĕr'ī-pī-lĕ-flĕ-bī'tīs) [" + *pyle*, gate, + *phlebos*, vein, + *itis*, inflammation] Inflammation of tissues about the portal vein.
- peripyloric** (pĕr'ī-pī-lor'ĭk) [" + *pylo-*
- ros*, pylorus] Extending around the pylorus.
- periradicular** (pĕr-ĕ-rā-dĭk'ū-lār) Around a root or a rootlike process, esp. relating to a tooth.
- perirectal** (pĕr'ī-rĕk'tāl) [" + L. *rectus*, straight] Extending around the rectum.
- perirectitis** (pĕr'ī-rĕk-tī'tīs) [" + " + Gr. *itis*, inflammation] Proctitis.
- perirenal** (pĕr'ī-rĕ'nāl) [" + L. *ren*, kidney] Extending around the kidney. SYN: *perinephric*.
- perirrhizoclasia** (pĕr'ī-rī-zō-klā-zĕ-ā) [" + *rhiza*, root, + *klasis*, destruction] Inflammation and destruction of tissues extending around the roots of a tooth.
- perisalpingitis** (pĕr'ī-sāl'pĭn-jī'tīs) [" + *salpinx*, tube, + *itis*, inflammation] Inflammation of the peritoneum on the surface of the fallopian tube, usually as a result of a sexually transmitted infection or endometriosis.
- perisalpinx** (pĕr'ī-sāl'pĭns) [" + *salpinx*, tube] The peritoneum covering the upper borders of the uterine tubes.
- periscopic** (pĕr'ī-skōp'ĭk) [" + *skopein*, to examine] Viewing on all sides; providing a wide range of vision.
- perisigmoiditis** (pĕr'ī-sĭg'mōy-dī'tīs) [Gr. *peri*, around, + *sigma*, Gr. letter S, + *eidosis*, form, shape, + *itis*, inflammation] Inflammation of peritoneal tissues around the sigmoid colon.
- perisinusitis** (pĕr'ī-sī'nū-sī'tīs) [" + L. *sinus*, cavity, + Gr. *itis*, inflammation] Inflammation of membranes about a sinus, esp. a venous sinus of the dura mater.
- perispermatis** (pĕr'ī-spĕr'mā-tī'tīs) [" + *sperma*, seed, + *itis*, inflammation] Inflammation of tissues about the spermatic cord.
- p. serosa*** Hydrocele of the spermatic cord.
- perisplanchnitis** (pĕr'ī-splānk-nī'tīs) [" + " + *itis*, inflammation] Perivisceritis.
- perisplenic** (pĕr'ī-splĕn'ĭk) [" + *splen*, spleen] Near or around the spleen.
- perisplenitis** (pĕr'ī-splĕ-nī'tīs) [" + " + *itis*, inflammation] Inflammation of the peritoneal coat of the spleen, the splenic capsule.
- perispondylitis** (pĕr'ī-spōn-dĭl-ī'tīs) [" + " + *itis*, inflammation] Inflammation of the parts around a vertebra.
- peristalsis** (pĕr-ĭ-stāl'sīs) [Gr. *peri*, around, + *stalsis*, contraction] A progressive wavelike movement that occurs involuntarily in hollow tubes of the body, esp. the alimentary canal. It is characteristic of tubes possessing longitudinal and circular layers of smooth muscle fibers.
- Peristalsis is induced reflexly by distention of the walls of the tube. The wave consists of contraction of the circular muscle above the distention with



### PERITONEAL AND PLEURAL FLUID

relaxation of the region immediately distal to the distended portion. The simultaneous contraction and relaxation progresses slowly for a short distance as a wave that causes the contents of the tube to be forced onward.

**mass p.** Forceful peristaltic movements of short duration in which contents are moved from one section of the colon to another, occurring three or four times daily.

**reverse p.** Peristalsis in a direction opposite to the normal direction. SYN: *antiperistalsis*.

**peristasis** (pĕr-ris'tă-sĭs) [n + *stasis*, standing] **1.** In the early stage of inflammation, the decrease in blood flow in the affected area. **2.** Environment.

**peristomatous** (pĕr'ĭ-stŏm'ă-tūs) [n + *stoma*, mouth] Around the mouth.

**peristome** (pĕr'ĭ-stŏm) [n + *stoma*, mouth] The channel leading to the cytosome or mouth in certain types of protozoa.

**peristromitis** (pĕr'ĭ-stroo-mĭ'tĭs) [n + L. *struma*, goiter, + *itis*, inflammation] Perithyroiditis.

**peristromous** (pĕr'ĭ-stroo'mūs) [n + L. *struma*, goiter] Around a goiter.

**peritectomy** (pĕr'ĭ-tĕk'tŏ-mĕ) [n + *ektome*, excision] Surgical removal of a ring of conjunctiva around the cornea.

**peritendinitis, peritenonitis** (pĕr'ĭ-tĕn'dĭ-nĭ'tĭs, -tĕn'ŏ-nĭ'tĭs) [n + " + Gr. *itis*, inflammation] Tenosynovitis.

**p. calcarea** Calcific tendinitis.

**p. serosa** Peritendinitis with effusion into the sheath.

**peritenon** (pĕr'ĭ-tĕ'nŏn) [n + *tenon*, tendon] The sheath of a tendon.

**perithelioma** (pĕr'ĭ-thĕ-lĕ-ŏ'mă) [n + *thelē*, nipple, + *oma*, tumor] A tumor derived from the perithelial layer of the blood vessels.

**perithelium** (pĕr'ĭ-thĕ'lĕ-ŭm) The fibrous outer layer of the smaller blood vessels.

**perithyroiditis** (pĕr'ĭ-thĭ-roy-dĭ'tĭs) [n + *thyreos*, shield, + *eidōs*, form, shape, + *itis*, inflammation] Inflammation of

capsule or tissues sheathing the thyroid gland. SYN: *peristromitis*.

**peritomy** (pĕr-ĭt'ŏ-mĕ) [n + *tome*, incision] **1.** A 360° incision of the conjunctiva and subconjunctival tissue around the limbus as part of retinal surgery or enucleation. SYN: *syndectomy*. **2.** Circumcision.

**peritoneal** (pĕr'ĭ-tŏ-nĕ'ăl) [Gr. *peritonaion*, peritoneum] Concerning the peritoneum.

**p. fluid** The clear straw-colored serous fluid secreted by the cells of the peritoneum. The few milliliters present in the peritoneal cavity moisten the surfaces of the two peritoneal layers and allow them to glide over each other as the intestinal tract changes shape during the process of digestion and absorption. In certain disease states (such as right-sided heart failure, cirrhosis, or ovarian malignancy) the amount of peritoneal fluid is increased. SEE: *illus.*; *ascites*.

**peritonealize** (pĕr-ĕ-tŏn'ĕ-ă-lĭz) During abdominal surgery, to cover a tissue with peritoneum.

**peritoneo-** Combining form meaning *peritoneum*.

**peritoneocentesis** (pĕr'ĭ-tŏ'nĕ-ŏ-sĕn-tĕ'sĭs) [Gr. *peritonaion*, peritoneum, + *kentesis*, puncture] Piercing of the peritoneal cavity to obtain fluid. SEE: *paracentesis*.

**peritoneoclysis** (pĕr'ĭ-tŏ'nĕ-ŏ-klĭ'sĭs) [n + *klysis*, a washing out] Introduction of fluid into the peritoneal cavity.

**peritoneopexy** (pĕr'ĭ-tŏ'nĕ-ŏ-pĕks'ĕ) [Gr. *peritonaion*, peritoneum, + *pexis*, fixation] Fixation of the uterus via the vagina.

**peritoneoplasty** (pĕr'ĭ-tŏ'nĕ-ŏ-plăs'tĕ) [n + *plassein*, to form] Surgery to repair separated or denuded segments of the peritoneum.

**peritoneoscope** (pĕr'ĭ-tŏ'nĕ-ŏ-skŏp'ŏ) [Gr. *peritonaion*, peritoneum, + *skopein*, to examine] A long, slender periscope or telescope device with a light at one end and an eyepiece at the other; used to inspect the peritoneal and ab-

dominal cavities through a small incision in the abdominal wall. SYN: *laparoscope*.

**peritoneoscopy** (pĕr'ī-tō'nē-ōs'kō-pē) Examination of the peritoneal cavity with a laparoscope.

**peritoneotomy** (pĕr'ī-tō'nē-ōt'ō-mē) The process of incising the peritoneum.

**peritoneum** (pĕr'ī-tō-nē'ūm) [LL., Gr. *peritonaion*.] The serous membrane lining the abdominal cavity and reflected over the viscera.

**EXAMINATION:** Diseases that affect the peritoneum can be assessed with gentle and careful percussion and palpation of the abdomen. Localized or diffuse peritonitis, for example, may be evident when the abdomen is tapped with a percussing finger (the patient will wince, guard the abdomen, and complain that the percussion is very painful); it may also be evident when the abdominal wall is gently depressed and then released (release of the examining hand causes guarding and discomfort). Fluid within the peritoneum (ascites) may be suggested by shifting dullness on percussion of the abdominal wall, or by the detection of a fluid wave when one hand depresses and releases on one side of the abdomen, while the other hand gently holds the opposite side. SEE: *illius*.



**PERITONEUM**

Seen laparoscopically (mag.  $\times\frac{1}{2}$ )

**parietal p.** Peritoneum lining the abdominal walls and the undersurface of the diaphragm.

**visceral p.** Peritoneum that invests the abdominal organs. The peritoneum holds the viscera in place by its folds, which are called the *mesentery*.

**peritonism** (pĕr'ī-tō-nīz'm) [Gr. *peritonaion*, peritoneum, + *-ismos*, condition] **1.** A condition having the clinical signs of shock and peritonitis. **2.** Symptoms similar to peritonitis, but without actual inflammatory process, due instead to functional disease.

**peritonitic** (pĕr'ī-tō-nīt'ik) [r + *itis*, inflammation] Affected with or concerning peritonitis.

**peritonitis** (pĕr'ī-tā-nīt'is) [r + *itis*] In-

flammation of the serous membrane that lines the abdominal cavity and its viscera. SEE: *chemical p.*; *primary p.*; *secondary p.*

**ETIOLOGY:** Peritonitis is caused by infection of the abdominal cavity without obvious organ rupture (primary peritonitis), by perforation (rupture) of one of the internal organs (secondary peritonitis), or by instillation of a chemical irritant into the abdominal cavity (chemical peritonitis).

Primary peritonitis occurs in patients with cirrhosis and ascites, in some patients with tuberculosis (esp. those with AIDS), and in patients who use the peritoneum for dialysis. Cirrhotic patients develop peritonitis from infection of the peritoneal contents by microorganisms such as *Streptococcus pneumoniae*, enterococci, or *Escherichia coli*. Patients who use the peritoneum for dialysis (chronic ambulatory peritoneal dialysis patients) sometimes contaminate their dialysate with hand-borne microbes such as staphylococci or streptococci. Dialysis patients may also develop peritonitis after the infusion of irritating substances (e.g., antibiotics like vancomycin) into the peritoneal cavity during treatment for these infections.

Common causes of secondary peritonitis are ruptured appendix, perforated ulcer, abdominal trauma, and Crohn's disease. The gases, acids, fecal material, and bacteria in the ruptured organs spill into and inflame the peritoneum.

**SYMPTOMS:** Primary peritonitis is marked by moderate to mild abdominal pain, fever, change in bowel habits, and malaise. Dialysis patients may notice clouding of their discharged dialysate. Fever, weight loss, inanition, and other systemic symptoms are common in tuberculous peritonitis.

Secondary peritonitis is marked by intense, constant abdominal pain that worsens on body movement. It is often associated with nausea, loss of appetite, and fever or hypothermia. On examination the abdomen is typically distended and quiet, and the patient holds very still in order to limit discomfort.

**DIAGNOSIS:** In patients with organ rupture, a plain x-ray examination of the abdomen may reveal air trapped beneath the diaphragm. Ultrasonography or abdominal computed tomography is used to visualize intraperitoneal fluid, abscesses, and diseased organs. Paracentesis or peritoneal lavage are also helpful in the diagnosis of some cases.

**TREATMENT:** Primary peritonitis may respond to the administration of antibiotics or antitubercular drugs, but the prognosis is guarded. As many as 50% of affected patients may die of sepsis. Secondary peritonitis is treated with surgical drainage, repair or re-

removal of the ruptured viscus, fluid resuscitation, and antibiotics. The prognosis depends on the patient's underlying condition, the rapidity of the diagnosis and of subsequent medical intervention, and the skill of the surgeon.

**acute diffuse p.** Diffuse peritonitis.

**adhesive p.** Peritonitis in which the visceral and parietal layers stick together.

**aseptic p.** Peritonitis due to causes other than bacterial, fungal, or viral infection (e.g., trauma, presence of chemicals produced naturally or introduced into the cavity, or irradiation).

**bile p.** Peritonitis caused by the escape of bile into the peritoneal cavity. It usually results from an injury to the gallbladder or biliary ducts during cholecystectomy.

**chemical p.** Peritonitis due to presence of chemicals (e.g., intestinal juices, pancreatic secretions, or bile) in the peritoneal cavity.

**chronic p.** Peritonitis usually caused by tuberculosis or cancer. Findings include slight or absent fever, pain, diffuse tenderness, anemia, and emaciation.

**circumscribed p.** Localized p.

**p. deformans** Chronic peritonitis with a thickened membrane and adhesions that contract and cause retraction of the intestines.

**diaphragmatic p.** Peritonitis in which the peritoneal surface of the diaphragm is mainly affected.

**diffuse p.** Peritonitis that is widespread, involving most of the peritoneum. SYN: *generalized peritonitis*.

**fibrocaceous p.** Peritonitis with fibrosis and caseation, usually caused by tuberculosis.

**gas p.** 1. Peritonitis in which gas is present in the peritoneal cavity. 2. Peritonitis caused by group A streptococci (GAS).

**generalized p.** Diffuse p.

**localized p.** Peritonitis confined to the area immediately surrounding an abscess, inflamed organ, or leak. SYN: *circumscribed peritonitis*.

**meconium p.** Peritonitis in the newborn caused by perforation of the gastrointestinal tract in utero. It most often occurs in newborns with cystic fibrosis. Neonatal intestinal obstruction is also usually present.

**pelvic p.** Peritonitis involving the peritoneum of the pelvis, usually as a result of endometrial, tubal, or ovarian infections.

**periodic p.** Familial Mediterranean fever.

**primary p.** Peritonitis resulting from infectious organisms transmitted through blood or lymph.

**puerperal p.** Peritonitis that develops after childbirth.

**secondary p.** Peritonitis resulting from extension of infection from adjoining structures, rupture of a viscus, abscess, or trauma.

**septic p.** Peritonitis caused by a pyogenic bacterium.

**serous p.** Peritonitis in which there is copious liquid exudation.

**silent p.** Peritonitis in which there are no signs or symptoms.

**talc p.** Peritonitis due to particles of talcum powder in the peritoneal cavity (e.g., postoperatively).

**traumatic p.** Acute peritonitis due to injury or wound infection.

**tuberculous p.** Peritonitis caused by tuberculosis.

**peritonsillar** (pĕr'ī-tŏn'sī-lăr) [Gr. *peri*, around, + L. *tonsilla*, tonsil] Extending around a tonsil.

**peritonillitis** (pĕr'ī-tŏn'sī-lī'tīs) [" + " + Gr. *itis*, inflammation] Inflammation of tissues around the tonsils.

**peritrichal, peritrichic** (pĕ-rīt'rī-kāl, pĕr'ē-trīk'īk) [" + *thrix*, hair] Peritrichous.

**peritrichous** (pĕ-rīt'rīk-ūs) [" + *thrix*, hair] Indicating microorganisms that have cilia or flagella covering the entire surface of the cell. SYN: *peritrichal*.

**perityphlitis** (pĕr'ī-tīf-lī'tīs) [" + " + *itis*, inflammation] Inflammation about the cecum; can be secondary to appendicitis.

**periumbilical** (pĕr'ē-ūm-bīl'ī-kāl) [" + L. *umbilicus*, a pit] Located around or near the navel (i.e., umbilicus). SYN: *paraumbilical*.

**periungual** (pĕr'ē-ūng'gwāl) [" + L. *unguis*, nail] Around a nail.

**periureteritis** (pĕr'ē-ū-rĕ-tĕr'ī'tīs) [" + " + *itis*, inflammation] Inflammation of parts around the ureter.

**periurethral** (pĕr'ē-ū-rĕ'thrāl) [" + *our-ethra*, urethra] Located around the urethra.

**periurethral bulking** The injection of collagen, plastic polymers, or other substances around the bladder sphincter. It is used as a surgical treatment for stress urinary incontinence. Also known as urethral bulking.

**periurethritis** (pĕr'ē-ū-rĕ-thrī'tīs) [" + " + *itis*, inflammation] Inflammation of the tissues around the urethra.

**perimeterine** (pĕr'ē-ū'tĕr-īn) [" + L. *uterus*, womb] Around the uterus. SYN: *perimetric*.

**perivaginal** (pĕr'ī-vāj'ī-nāl) [" + L. *vagina*, sheath] Around the vagina.

**perivaginitis** (pĕr'ī-vāj'ī-nī'tīs) [" + " + Gr. *itis*, inflammation] Inflammation of the region around the vagina. SYN: *pericolpitis*.

**perivascular** (pĕr'ī-vās'kū-lăr) [" + L. *vasculus*, a little vessel] Around a vessel, esp. a blood vessel.

**perivasculitis** (pĕr'ī-vās'kū-lī'tīs) [" + " + Gr. *itis*, inflammation] Inflamma-

tion of the tissues surrounding a blood vessel. SYN: *periangiitis*.

**periventricular** (pĕr'ī-vĕn-trĭk'ū-lăr) Pert. to the area surrounding or near the ventricles, esp. the ventricles of the brain.

**perivertebral** (pĕr'ī-vĕr'tĕ-brăl) [ʹ + L. *vertebra*, vertebra] Around a vertebra.

**perivisceral** (pĕr'ī-vĕs'ī-kăl) [ʹ + L. *vesicula*, little bladder] Around the urinary bladder.

**perivisculitis** (pĕr'ī-vĕ-sĭk'ū-lĭ'tĭs) [ʹ + ʹ + Gr. *itis*, inflammation] Inflammation of tissues around a seminal vesicle.

**perivisceritis** (pĕr'ī-vĭs'ĕr-ĭ'tĭs) [ʹ + ʹ + ʹ] Inflammation of the tissues surrounding the visceral organs. SYN: *perisplanchnitis*.

**perle** (pĕrl) [Fr., pearl] A soft capsule containing medicine.

**perlèche** (pĕr-lĕsh') [Fr.] A disorder marked by fissures and epithelial desquamation at the corners of the mouth, esp. seen in children. The condition may be due to oral candidiasis or may be a symptom of dietary deficiency, esp. riboflavin deficiency.

**perlingual** (pĕr-lĭng'gwăl) [L. *per*, through, + *lingua*, tongue] By way of the tongue; a method of administering medicines.

**Perls' stain** [Max Perls, German pathologist 1843-1881] A histochemical stain that demonstrates iron when it is present in body tissues.

**permanent** (pĕr'mă-nĕnt) [ʹ + *manere*, to remain] Enduring; without change.

**permanganate** (pĕr-măn'gă-năt) Any one of the salts of permanganic acid.

**permeability** (pĕr'mĕ-ă-bĭl'ĭ-tĕ) [LL. *permeabilis*] The quality of being permeable; that which may be traversed.

**capillary p.** The condition of the capillary wall that enables substances in the blood to pass into tissue spaces or into cells, or vice versa.

**permeable** (pĕr'mĕ-ă-b'l) Capable of allowing the passage of fluids or substances in solution. SYN: *pervious* (1).

**permeation** (pĕr'mĕ-ă-shŭn) [L. *permeare*, permeate] Penetration of and spreading throughout an organ, tissue, or space.

**permethrin** (pĕr-mĕth-rĭn) An insecticide and insect repellent that has been used to treat scabies and lice infestations, and to protect people from tick exposure while working or playing outdoors.

**permissible exposure limits** (pĕr-mĭs-să-bl) The limits, usually expressed as a combination of time and concentration, to which humans may be safely exposed to physical agents, ionizing radiation, or chemical substances in the environment in general and in work areas specifically. SEE: *hazardous material*; *health*

*hazard*; *maximum allowable concentration*; *right-to-know law*.

**permucosal** (pĕr-mŭ-kō'săl, Across mucous membranes.

**permutation** (pĕr'mŭ-tă'shŭn) [L. *per*, completely, + *mutare*, to change] Transformation; complete change; act of altering objects in a group.

**pernicious** (pĕr-nĭsh'ŭs) [L. *perniciosus*, destructive] Destructive; fatal; harmful.

**p. trend** In psychology, an abnormal departure from conventional ideas and social interests.

**pernio** (pĕr'nĕ-ō) [L.] Chilblain.

**pero-** [Gr. *peros*, maimed] Combining form meaning *deformed*.

**peroneal** (pĕr'ō-nĕ'ăl) [Gr. *perone*, pin] Concerning the fibula.

**p. sign** Eversion and dorsiflexion of the foot resulting from tapping the peroneal nerve with a reflex hammer.

**peroneo-** [Gr. *perone*, pin] Combining form meaning *fibula*.

**peroneotibial** (pĕr'ō-nĕ'ō-tĭb'ĕ-ăl) [ʹ + L. *tibia*, shinbone] Concerning the fibula and tibia.

**peroneus** (pĕr'ō-nĕ'ŭs) [Gr. *perone*, pin] One of three muscles of the leg that act to move the foot.

**p. brevis** The muscle arising from the distal two thirds of the lateral fibula and attaching to the styloid process of the base of the fifth metatarsal. The peroneus brevis assists in plantar flexion of the foot and eversion of the ankle.

**p. longus** The muscle arising from the lateral tibial condyle and the upper two thirds of the fibula and inserting on the lateral aspect of the first metatarsal and the associated portion of the first cuneiform. The peroneus longus is the primary contributor to the plantar flexion of the foot and the eversion of the ankle.

**p. tertius** The muscle arising from the anterior portion of the distal one third of the tibia and the adjacent portion of the interosseous membrane and attaching on the dorsal surface of the fifth metatarsal. The peroneus tertius is a secondary contributor to ankle dorsiflexion and eversion. This muscle is absent in a significant proportion of the population.

**peroral** (pĕr-or'ăl) [L. *per*, through, + *oris*, mouth] Administered through the mouth.

**per os** (pĕr ōs) [L.] ABBR: po. By mouth.

**perosseous** (pĕr-ōs'ĕ-ŭs) [L. *per*, through, + *os*, bone] Through bone.

**peroxidase** (pĕr-ōk'sĭ-dās) [ʹ + Gr. *oxys*, acid, + *-ase*, enzyme] An enzyme that catalyzes the decomposition of hydrogen peroxide to water and oxygen; common in plant cells. This process is essential to intracellular respiration.

**peroxide** (pĕr-ōk'sĭd) In chemistry, a



compound containing more oxygen than the other oxides of the element in question.

**peroxisome** (pě-rōks'ī-sōm) A class of single-membrane-bound vesicles that contain a variety of enzymes including catalase. They are present in most human cells but are concentrated in the liver. The absence of functional peroxisomes is involved in a number of diseases; the most severe is Zellweger's syndrome, which affects newborns and is usually fatal before 1 year of age. This syndrome consists of cirrhosis of the liver and congenital malformations of the central nervous system and skeleton.

**per rectum** (pěr rēk'tūm) [L.] By the rectum; through the rectum.

**PERRLA** (pūr'lā) *pupils equal, round, reactive to light and accommodation.*

**perseveration** (pěr-sěv'ēr-ā'shūn) [L. *perseverare*, to persist] **1.** Abnormal, compulsive, and inappropriate repetition of words or behaviors, a symptom observed, for example, in patients with schizophrenia or diseases of the frontal lobes of the brain. **2.** The repetition of rhythmic but meaningless actions, behaviors, or movements.

**Persian Gulf syndrome** ABBR: PGS. A term used to describe a variety of symptoms experienced by veterans of the Persian Gulf war, including fatigue, loss of memory, muscle and joint pains, shortness of breath, and gastrointestinal complaints. The cause of these complaints is obscure.

**persistent light reaction** Photosensitivity.

**persistent vegetative state** A continuing and unremitting clinical condition of complete unawareness of the environment accompanied by sleep-wake cycles with either complete or partial preservation of hypothalamic and brainstem autonomic functions. The diagnosis is established if the condition is present for 1 month after acute or nontraumatic brain injury or has lasted for 1 month in patients with degenerative or metabolic disorders or developmental malformations. SYN: *vegetative state*.

**person** (pěr-sūn) A human being.

**persona** (pěr-sō'nā) [L., mask] **1.** The attitude or appearance a person presents to others. **2.** Personality.

**personal care attendant** An employee hired to assist a functionally limited person with activities of daily living.

**personal digital assistant** ABBR: PDA. A hand-held or pocket-sized computer used to store information or communicate with others.

**personal emergency alert system** (pěr-sūn-āl) A device consisting of a portable battery-powered help button and a machine that automatically dials a monitoring station. The device is connected

to the individual's telephone or to a phone jack. When the system is activated, it either allows a two-way communication between the monitoring station and the individual or alerts the station personnel to phone the individual. In the latter case, if there is no response the station may call a neighbor or family member or dispatch emergency medical technicians to the person's home.

**personal equation** A personal bias or peculiarity that may explain a difference in approach or interpretation.

**personalism** (pěr'sūn-ā-lizm) A social theory of health care that stresses the importance of respect for the dignity and individuality of those people for whom care is provided.

**personality** (pěr-sūn-āl-itē) [LL. *personalitas*] The unique organization of traits, characteristics, and modes of behavior of an individual, setting the individual apart from others and at the same time determining how others react to the individual. SYN: *persona* (2). SEE: *personality test*.

**alternating p.** Dissociative identity disorder.

**anal p.** SEE: *anal personality*.

**borderline p.** SEE: *borderline personality disorder*.

**compulsive p.** Obsessive-compulsive personality disorder.

**extroverted p.** SEE: *extrovert*.

**inadequate p.** A personality type in which the individual is ineffective and is physically and emotionally unable to cope with the normal stress of living.

**introverted p.** SEE: *introvert* (1).

**multiple p.** Dissociative identity disorder.

**obsessive-compulsive p.** Obsessive-compulsive disorder.

**paranoid p.** Paranoid personality disorder.

**psychopathic p.** Antisocial personality disorder.

**type A p.** SEE: under *behavior*.

**type B p.** SEE: under *behavior*.

**personality disorder** A pathological disturbance of the patterns of perception, communication, and thinking that impairs a person's ability to function effectively. Personality disorders are manifested in at least two of the following areas: cognition, affect, interpersonal functioning, or impulse control. Generally, the disorder is of long duration, and its onset can be traced to early adolescence.

**TREATMENT:** Psychotherapy, psychopharmacological drugs, or a combination of the two is used in treating these disorders although many personality disorders resist treatment.

**antisocial p.d.** A type of personality disorder characterized by disregard for the rights and feelings of others. It usu-

ally begins before age 15. In early childhood, lying, stealing, fighting, truancy, and disregard of authority are common. In adolescence, aggressive sexual behavior, excessive use of alcohol, and drug use may be characteristic. In adulthood, these behavioral patterns continue with the addition of poor work performance, inability to function responsibly as a parent, and inability to accept normal restrictions imposed by the law. Affected people may repeatedly perform illegal acts (e.g., destroying property, harassing others, or stealing) or pursue illegal occupations. They disregard the safety, wishes, rights, and feelings of others. This type of personality disorder is not due to mental retardation, schizophrenia, or manic episodes. It is much more common in males than females. This condition has been referred to as psychopathy, sociopathy, or dyssocial personality disorder.

**avoidant p.d.** A personality disorder marked by a pervasive pattern of social inhibition, feelings of inadequacy, and hypersensitivity to criticism. This begins by early adulthood and is present in various situations (e.g., school, work, or activities involving contact with others). People with this disorder desire affection, security, certainty, and acceptance and may fantasize about idealized relationships with others.

**borderline p.d.** A personality disorder in which there is difficulty in maintaining stable interpersonal relationships and self-image. This manifests as unpredictable and impulsive behavior, outbursts of anger, irritability, sadness, and fear. Self-mutilation or suicidal behavior may be present. Sometimes there is a chronic feeling of emptiness or boredom. SEE: *Nursing Diagnoses Appendix*.

**Cluster A p.d.** A grouping of personality disorders sharing traits of odd behavior and social isolation. This group of diagnoses includes paranoid, schizoid, and schizotypal personality disorders.

**Cluster B p.d.** A grouping of personality disorders sharing traits of attention seeking, highly excitable emotional states, and unpredictable behavior. This group includes antisocial, borderline, narcissistic, and histrionic personality disorders.

**Cluster C p.d.** A group of personality disorders in which anxious and fearful behavior is a prominent feature. This group includes dependent, avoidant, and obsessive-compulsive personality disorders.

**histrionic p.d.** A personality disorder marked by excessive emotionalism and attention-seeking. Those affected are active, dramatic, prone to exaggerate, and subject to irrational, angry out-

bursts or tantrums. They express boredom with normal routines and crave novelty and excitement. Behavior in interpersonal relationships is shallow, vain, demanding, and dependent.

**obsessive-compulsive p.d.** Obsessive-compulsive disorder. SYN: *obsessive-compulsive personality*.

**narcissistic p.d.** A personality disorder marked by a grandiose sense of self-importance and preoccupation with fantasies of unlimited success, power, brilliance, or beauty. The individual believes that his problems are unique and can only be understood by other "special" people. There is an exhibitionistic need for admiration and attention, a lack of empathy, and an inability to understand how others feel.

**paranoid p.d.** A personality disorder characterized by unwarranted suspiciousness and mistrust of others, hypervigilance directed at hidden motives or intent to harm, hypersensitivity to criticism, tendency to hold grudges and to be easily offended, and reluctance to confide in others. SYN: *paranoid disorder*.; SEE: *paranoid disorder in Nursing Diagnoses Appendix*.

**passive-aggressive p.d.** A personality disorder marked by indirect resistance to demands for adequate occupational or social performance through procrastination, dawdling, stubbornness, inefficiency, or forgetfulness. The disorder begins in early childhood and may manifest itself in refusal to complete routine tasks, complaints of being misunderstood or unappreciated, sullen or argumentative attitude, pronounced envy of others, and behavior that alternates between hostile defiance and contrition.

**schizoid p.d.** A personality disorder characterized by shyness, oversensitivity, seclusiveness, dissociation from close interpersonal or competitive relationships, eccentricity, daydreaming, preference for solitary activities, and inability to express anger or joy in situations that normally call for such a reaction. In most social interactions, those affected seem cold or aloof.

**personality test** A neuropsychiatric assessment tool, such as the Minnesota Multiphasic Personality Inventory-2, used to identify an individual's predominant emotional makeup. Personality tests measure adjustment, adventurousness, agitation, anxiety, coping styles, depression, introversion, hypochondriasis, paranoia, and other emotional variables.

**personalized medicine** Theranostics.

**personal protective equipment** Clothing, masks, gloves, or other gear that protects a person from exposure to noxious chemicals or transmissible diseases.

**personal representative** (pĕr'sin-ĭl rĕp'rĭ-zĕn'-tā-tĭv) Someone designated to make health care decisions for another if that other person becomes incapable of making such decisions.

**Person-Environment-Occupation-Performance model** ABBR: PEOP. A conceptual model used by occupational therapists to guide clinical reasoning and plan interventions. It emphasizes that activity performance is influenced by the capacity of the individual, the characteristics of the activity, and the resources and task demands of the environment.

**persons in need of supervision** ABBR: PINS. A legal term for children who, because of behavioral problems, require supervision, usually in an institution.

**person-years of life lost** A calculation of the impact of a disease on society owing to premature death from the specific disease; the number of years the person would live if she or he had never contracted the disease.

**perspiration** (pĕr'spĭr-ā'shŭn) [L. *perspire*, breathe through] **1.** The secretion of the sweat (sudoriferous) glands of the skin; sweating. **2.** The salty fluid secreted through the sweat glands of the skin; sweat. Essentially, the fluid is a weak solution of sodium chloride, but it also contains potassium, lactate, and urea.

Perspiration is a means of removing heat from the body. Evaporation of 1 L of sweat removes 580 kcal of heat from the body. Sweat loss varies from 100 to 1000 ml/hr but may exceed those amounts in a hot climate.

Perspiration is increased by temperature and humidity of the atmosphere, exercise, pain, nausea, nervousness, mental excitement, dyspnea, diaphoretics, and shock. It is decreased by cold, diarrhea, other causes of profound dehydration, and using certain drugs.

**insensible p.** Evaporation of water vapor from the body without appearing as moisture on the skin. SYN: *insensible sweating*.

**sensible p.** Perspiration that forms moisture on the skin.

**perspire** (pĕr-spĭr') [L. *perspire*, breathe through] To secrete fluid through the pores of the skin. SYN: *sweat* (3).

**persuasion** (pĕr-swā'zhŭn) The act of influencing the thinking or behavior of others.

**persulfate** (pĕr-sŭl'fāt) One of a series of sulfates containing more sulfuric acid than the others in the same series.

**Perthes' disease** (pĕr'tĕz) [Georg C. Perthes, Ger. surgeon, 1869–1927] Osteochondritis deformans juvenilis.

**pertinent** Relevant; clinically meaningful.

**p. negative** An element of the pa-

tient's history that aids diagnosis because the patient denies that it is present.

**p. positive** An element of a patient's history that aids diagnosis because the patient affirms that it is present.

**per tubam** (pĕr tŭ'bām) [L.] Through a tube.

**perturbation** (pĕr'tĕr-bā'shŭn) [L. *perturbare*, thoroughly disordered] **1.** The state of being greatly disturbed or agitated; uneasiness of mind. **2.** A disturbance or a change in a structure or function, usually as a result of an external influence.

**pertussis** (pĕr-tŭs'is) [L. *per*, through, + *tussis*, cough] An acute, contagious disease characterized by paroxysmal coughing, vomiting that follows the cough, and whooping inspiration. The disease is caused by a small, nonmotile, gram-negative bacillus, *Bordetella pertussis*. The incubation period is 7 to 10 days. Treatment is symptomatic and supportive. Antibiotics (e.g., erythromycin) are given to treat bacterial pneumonia and otitis media, esp. in infants and young children, early in the course of the infection. SYN: *whooping cough* (1).

**PREVENTION:** Pertussis may be prevented by immunization of infants beginning at 3 months of age. Booster vaccination (Tdap) should be given to adolescents (at ages 11 to 18) and to susceptible adults.

**SYMPTOMS:** Pertussis is often divided into the following three stages:

**Catarrhal:** At this stage the symptoms are chiefly suggestive of the common cold—slight elevation of fever, sneezing, rhinitis, dry cough, irritability, and loss of appetite.

**Paroxysmal:** This stage sets in after approx. 2 weeks. The cough is more violent and consists of a series of several short coughs, followed by a long drawn inspiration during which the typical whoop is heard, brought on by spasmodic contraction of the glottis. With the conclusion of the paroxysm, vomiting is common. The number of paroxysms in 24 hr may vary from 3 or 4 to 40 or 50. The cough may be precipitated by eating, drinking, or pressing on the trachea.

**Decline:** This stage begins after an indefinite period of several weeks. Paroxysms grow less frequent and less violent, and after a period that may be prolonged for several months, the cough finally ceases.

**PATIENT CARE:** Parents are advised that immunization prevents pertussis. Vaccination should be given to children and adolescents, except for those with a history of known allergy. For those individuals who contract the disease, precautions are taken to prevent spread after the onset of symptoms. Bedrest,

isolation, and a quiet environment are provided. Because cough may be severe and debilitating, remedies such as guaifenesin or benzonatate may be given. Comfort measures are provided as indicated.

**pertussis immune globulin** A sterile solution of antibodies derived from the blood of adults who have been immunized with pertussis vaccine; used to produce passive immunity to pertussis.

**pertussis vaccine** SEE: under *vaccine*.

**perтусoid** (pěr-tūs'oyd) [L. *per*, through, + *tussis*, cough, + Gr. *eidōs*, form, shape] **1.** Of the nature of whooping cough. **2.** A cough generally similar to that of whooping cough.

**per vaginam** (pěr vā-jī'nām) [L.] Through the vagina.

**pervasive** (pěr-vā'siv) [L. *pervadere*, to go through] Spreading widely and deeply; affecting all aspects of something.

**pervasive developmental disorder** A synonym for the autism spectrum of disorders, e.g., "classical" autism, Asperger disorder, childhood disintegrative disorder (regressive autism), and Rett syndrome.

**perversion** (pěr-věr'zhŭn) [L. *perversus*, perverted] Deviation from the normal path, whether it be in the area of one's intellect, emotions, actions, or reactions.

**sexual p.** A maladjustment of sexual behavior in which satisfaction is sought in ways that veer far from accepted cultural norms.

**pervert** (pěr-věrt') [L. *pervertēre*, to turn the wrong way] **1.** To turn from the normal; to misuse. **2.** One who has turned from the normal or socially acceptable path, esp. sexually.

**pervious** (pěr've-tŭs) [L. *pervius*] **1.** Permeable. **2.** Penetrating.

**pes** (pēs, pēz, pē'dēz) *pl.* **pedes** [L.] The foot or a footlike structure.

**p. abductus** Talipes valgus.

**p. adductus** Talipes varus.

**p. anserinus** **1.** The network of branches of the facial nerve as it passes through the parotid gland **2.** The combined tendinous expansions of the sartorius, gracilis, and semitendinosus muscles at the medial border of the tibial tuberosity.

**p. cavus** Talipes arcuatus.

**p. contortus** Talipes equinovarus.

**p. equinovalgus** A condition in which the heel is elevated and turned laterally.

**p. equinovarus** A condition in which the heel is turned inward and the foot is plantar flexed.

**p. equinus** A deformity marked by walking without touching the heel to the ground. SYN: *talipes equinus*.

**p. gigas** Macropodia.

**p. hippocampi** The lower portion of the hippocampus major.

**p. planus** Flatfoot.

**p. valgus** Talipes valgus.

**p. varus** Talipes varus.

**pesco-** (pēs'kō) [Sp. *pesca*, to fish] Combining form meaning *fish*.

**pescovegetarian** (pēs'kō-věj'ī-tār'ē-ĭn) [" + "] A person who eats a vegetarian diet supplemented by fish.

**pessary** (pēs'ā-rē) [L. *pessarium*] A device inserted into the vagina to function as a supportive structure for the uterus. A pessary may be inserted to treat symptomatic uterine displacements. After manually repositioning the uterus, the physician inserts the appropriate-size device; a woman should not feel a well-fitted pessary. Pessaries should be removed and cleaned frequently; however, this requires manual dexterity and is difficult for elderly patients. Use of an antibacterial cream or gel will help decrease odor. Unless discomfort arises, the device is removed about 6 weeks later. If relief and anteversion occur, no further treatment is necessary. If not, the pessary is reinserted for another 6 weeks.

**cup p.** Pessary that has a cup-shaped hollow that fits over the os uteri.

**diaphragm p.** A cup-shaped rubber pessary used as a contraceptive device.

**Hodge's p.** A pessary used to correct retrodeviations of the uterus.

**ring p.** A round pessary.

**pessimism** (pēs-i-mi-zim) A frame of mind marked by loss of hope, confidence, or trust in a good outcome, even when such an outcome is likely. SEE: *optimism*.

**therapeutic p.** Nihilism (1).

**pest** (pĕst) [L. *pestis*, plague] **1.** A noxious, destructive insect. **2.** A fatal epidemic disease, esp. plague.

**pesticemia** (pēs'ti-sē-mē-ā) [" + Gr. *haima*, blood] The presence of *Yersinia pestis* in the blood.

**pesticide** (pēs'ti-sid) [" + *cida*, killer] Any chemical used to kill pests, esp. rodents and insects.

**p. residue** The amount of any pesticide remaining on or in food or beverages intended for human consumption.

**restricted-use p.** In the U.S., a pesticide known to have adverse effects on the environment or on people; only individuals who have been specially trained and certified as pesticide applicators may use it.

**pestilence** (pēs'til-ĕns) [L. *pestilentia*] An epidemic contagious disease. **pestilential** (pēs-ti-lĕn'shāl), *adj.*

**pestis** (pēs'tis) [L.] Plague.

**p. ambulans** Ambulatory plague.

**p. fulminans** The most severe form of plague.

**pestle** (pēs'l) [L. *pistillum*] A device for macerating drugs in a mortar.

**PET** *positron emission tomography*.

**peta-** (pēt) [Fm. *penta*, representing the fifth power of a thousand] A prefix used in the International System of Units (SI units) to signify  $10^{15}$ .

**petechiae** (pē-tē'kē-ē) *sing.*, **petechia** [It. *petecchia*, skin spot] **1.** Small, purplish, hemorrhagic spots on the skin that appear in patients with platelet deficiencies (thrombocytopenias) and in many febrile illnesses. **SEE:** *illus.* **2.** Red spots from the bite of a flea.



**PETECHIAE**

**petechial** (pē-tē'kē-āl) Marked by the presence of petechiae.

**Peter Pan syndrome** (pē-tēr) The reluctance of an adult to adopt traditional male adult behavior.

**petiole** (pēt'ē-ōl) [LL. *petiolus*] A slender stalk or stem, as petiole of the epiglottic cartilage.

**petition** Complaint (2).

**petit mal** **SEE:** *epilepsy*.

**Petri dish** (pē'trē) [Julius Petri, Ger. bacteriologist, 1852–1921] A shallow covered dish made of plastic or glass, used to hold solid media for culturing bacteria.

**petrification** (pēt-rī-fāk'shūn) [L. *petra*, stone, + *facere*, to make] The process of changing into stone or hard substance.

**petrify** (pēt'rī-fī) To convert into stone; make rigid.

**pétrissage** (pā'trē-sāzh') [Fr.] A massage technique that uses kneading or squeezing of muscle groups across muscle fibers and is performed generally by the tips of the thumbs, with the index finger and thumb, or with the palm of the hand. It is used principally on the extremities. The operator picks up a special muscle or tendon and, placing one finger on each side of the part, proceeds in centripetal motion with a firm pressure. **SYN:** *kneading*.

**petro-** [L. *petra*, stone] Combining form meaning *stone*; pert. to the petrous portion of the temporal bone.

**petrolatum** (pēt'rō-lā'tūm) [L.] A purified semisolid mixture of hydrocarbons obtained from petroleum. This occlusive

substance is used as a base for ointments. It is not suitable for use as a vaginal lubricant because it is not miscible in body secretions. **SYN:** *soft paraffin*.

**liquid p.** A mixture of liquid hydrocarbons obtained from petroleum. This mixture is used as a vehicle for medicinal substances for local applications. Light petrolatum is employed as a topical spray, whereas heavy petrolatum was once used internally to treat constipation. **SYN:** *mineral oil*.

**petroleum** (pē-trō'lē-ūm) [L. *petra*, stone, + *oleum*, oil] An oily inflammable liquid found in the upper strata of the earth; a hydrocarbon mixture.

**petro-occipital** (pēt'rō-ōk-sīp'ī-tāl) [p' + *occipitalis*, occipital] Concerning the petrous portion of the temporal bone and the occipital bone.

**petrosa** (pē-trō'sā) [L. *petrosus*, stony] The petrous part of the temporal bone.

**petrosal** (pēt-rō'sāl) [L. *petrosus*, stony] Of, pert. to, or situated near the petrous portion of the temporal bone.

**petrositis** (pēt'rō-sī'tīs) [p' + Gr. *itis*, inflammation] Inflammation of the petrous region of the temporal bone.

**petrosquamous** (pēt'rō-skwā'mūs) [p' + *squamosus*, scaly] Pert. to the petrous and squamous portions of the temporal bone.

**petrous** (pēt'rūs) [L. *petrosus*] **1.** Resembling stone. **2.** Relating to the petrous portion of the temporal bone. **SYN:** *petrosal*.

**Peutz-Jeghers syndrome** (pütz-jā'kērs) [Johannes Laurentius Augustinus Peutz, Dutch physician, 1886–1957; Harold J. Jeghers, U.S. physician, 1904–1990] An inherited disorder characterized by the presence of polyps of the small intestine and melanin pigmentation of the lips, mucosa, fingers, and toes. Anemia due to bleeding from the intestinal polyps is a common finding.

**pexin** (pēk'sīn) Rennet.

**pexis** (pēk'sīs) [Gr., fixation] Fixation of material to the tissue.

**-pexy** [Gr. *pexis*, fixation] A combining form used as a suffix meaning *fixation*, usually surgical.

**Peyer's patch** (pī'ērzh) [Johann Conrad Peyer, Swiss anatomist, 1653–1712] A group of diffuse lymphoid nodules in the mucosa of the small bowel. Part of the mucosa-associated lymphoid tissue (MALT), Peyer's patches detect and respond to foreign antigens in the gastrointestinal tract. Antibodies secreted by B cells in Peyer's patches provide a significant defense against ingested pathogens. **SYN:** *agminated follicle*.

**peyote** (pā-ō'tē) [Nahuatl *peyotl*] **1.** The cactus plant, *Lophophora williamsii*, from which the hallucinogen mescaline is obtained. **2.** The drug from the flow-



ering heads, buttons, of *L. williamsii*, used by some Native Americans to produce altered states of consciousness. In certain tribes the buttons are used in religious ceremonies.

**Peyronie's disease** (pā-rō-nēz') [François de la Peyronie, Fr. surgeon, 1678–1747] A dorsal deformity or curvature of the penis caused by fibrous tissue within the tunica albuginea. When the distortion of the penis is severe, the affected individual may experience erectile dysfunction or pain during sexual intercourse.

**TREATMENT:** In many cases the contracture is mild, and those patients do not require treatment. When pain is present for more than 12 months, however, or when the deformity is severe or interferes with erectile function, surgical repair of the defect may prove helpful.

**Pfannenstiel incision** (fän'ën-stēl) A transverse curvilinear incision immediately above the pubic symphysis extending from the skin into the peritoneum. The skin incision is continued transversely to include the anterior rectus sheath, which is then reflected superiorly; the bellies of the rectus muscle are separated longitudinally and the peritoneum is incised vertically. This surgical approach is used most often in gynecological procedures.

**PFD** *personal flotation device*. SEE: under *device*.

**Pfeiffer, Richard F.** (fi'fēr) German bacteriologist, 1858–1945.

**P.'s bacillus** *Haemophilus influenzae*.

**P.'s phenomenon** A discovery made in 1894 stating that the serum of guinea pigs immunized with cholera vibrios destroyed cholera organisms in the peritoneal cavity of immune and nonimmune guinea pigs and that the same reaction occurred in vitro. That same lytic reaction occurred with typhoid and *Escherichia coli*.

**Pfiesteria piscicida** (fēs-tēr'e-ä pīs-i-sid'ä) [NL fish killer] A unicellular marine organism, which may or may not produce a toxin, depending on environmental conditions. When toxic, it has been implicated in the death of millions of fish in the estuaries of North Carolina, Delaware, and Maryland. The toxin can become aerosolized, and if humans are exposed to it, severe neurological, mental, and physical illness may occur. Specific therapy to combat the toxin is not available, but concomitant infections can be treated with tetracyclines.

**P:F ratio** The ratio of arterial partial pressure of oxygen to inspired fractional concentration of oxygen; used to measure oxygen transfer.

**PFT** *pulmonary function test*.

**PG** *prostaglandin*.

**pg** *picogram*.

**PGA** *pteroylglutamic acid*.

**Ph 1.** *Pharmacopoeia*. **2.** Symbol for phenyl.

**pH** *potential of hydrogen*. A measure of the hydrogen ion concentration of a solution. In chemistry, the degrees of acidity or alkalinity of a substance are expressed in pH values. A solution that is neither acid nor alkaline is assigned a pH of 7. Increasing acidity is expressed as a number less than 7, and increasing alkalinity as a number greater than 7. Maximum acidity is pH 0 and maximum alkalinity is pH 14. Because the pH scale is logarithmic, there is a 10-fold difference between each unit. For example, pH 5 is 10 times as acid as pH 6 and pH 4 is 100 times as acid as pH 6. The pH of a solution may be determined electrically by a pH meter or colorimetrically by the use of indicators. A list of indicators and the pH range registered by each is given under the indicator. SEE: *illus.*; *table*; *indicator*.

**PHA** *phytohemagglutinin*.

**phacitis** (fä-si'tis) [Gr. *phakos*, lens, + *itis*, inflammation] Phakitis.

**phaco-** [Gr. *phakos*] Combining form denoting *lens*.

**phacoanaphylaxis** (fäk"ō-än"ä-fi-läk'sis) [Gr. *phakos*, lens, + *ana*, excessive, + *phylaxis*, protection] Hypersensitivity to protein of the crystalline lens.

**phacocele** (fäk"ō-sēl) [" + *kele*, tumor, swelling] Displacement of the lens from its normal anatomic location. SYN: *phacomatachrosis*.

**phacocyst** (fäk"ō-sist) [Gr. *phakos*, lens, + *kystis*, a sac] The capsule of the crystalline lens.

**phacocystectomy** (fäk"ō-sis-tēk'tō-mē) [" + " + *ektome*, excision] Surgical excision of part of the crystalline lens capsule for treatment of cataract.

**phacocystitis** (fäk"ō-sis-ti'tis) [" + " + *itis*, inflammation] Inflammation of the capsule of the lens of the eye. SYN: *phacohymentitis*.

**phacododensis** Wobbling of the lens during eye movement. It is caused by loss of zonular attachments and is associated with pseudoexfoliation syndrome and ocular trauma.

**phacoemulsification** (fäk"ō-ē-mül'si-fi-kä"shün) A method for removing the lens of the eye in order to treat cataracts. An ultrasonic device is used to fragment the lens, which is then removed via aspiration through a small incision. SYN: *phacofragmentation*.

**phacoerysis** (fäk"ō-ēr-e'sis) [" + *eresis*, removal] Removal of the lens of the eye by attaching a suction device, an erysiphe, to it. SEE: *erysiphe*.

**phacofragmentation** (fäk"ō-fräg'mēntä"shün) Phacoemulsification.

**phacoglaucoma** (fäk"ō-glaw-kō'mä) ["

+ *glaukos*, green, + *oma*, tumor] Lens changes induced by glaucoma. SEE: *glaucoma*.

**phacohymeritis** (fāk"ō-hī"mēn-'tīs) [" + *hymen*, membrane, + *itis*, inflammation] Phacocystitis.

**phacoid** (fāk'oyd) [" + *eidōs*, form, shape] Lentil- or lens-shaped.

**phacoiditis** (fāk'oy-dī'tīs) [" + " + *itis*, inflammation] Phakitis.

**phacoidoscope** (fā-koyd'ō-skōp) [" + " + *skopein*, to examine] Phacoscope.

**phacolysis, phakolysis** (fāk-ōl'y-sīs) [" + *lysis*, dissolution] Any dissolution or disintegration of the crystalline lens.

**phakoma** (fā-kō'mā) [" + *oma*, tumor] Phakoma.

**phacomalacia** (fāk"ō-mā-lā'shē-ā) [" + *malakia*, softening] A softening of the lens, usually resulting from a soft cataract.

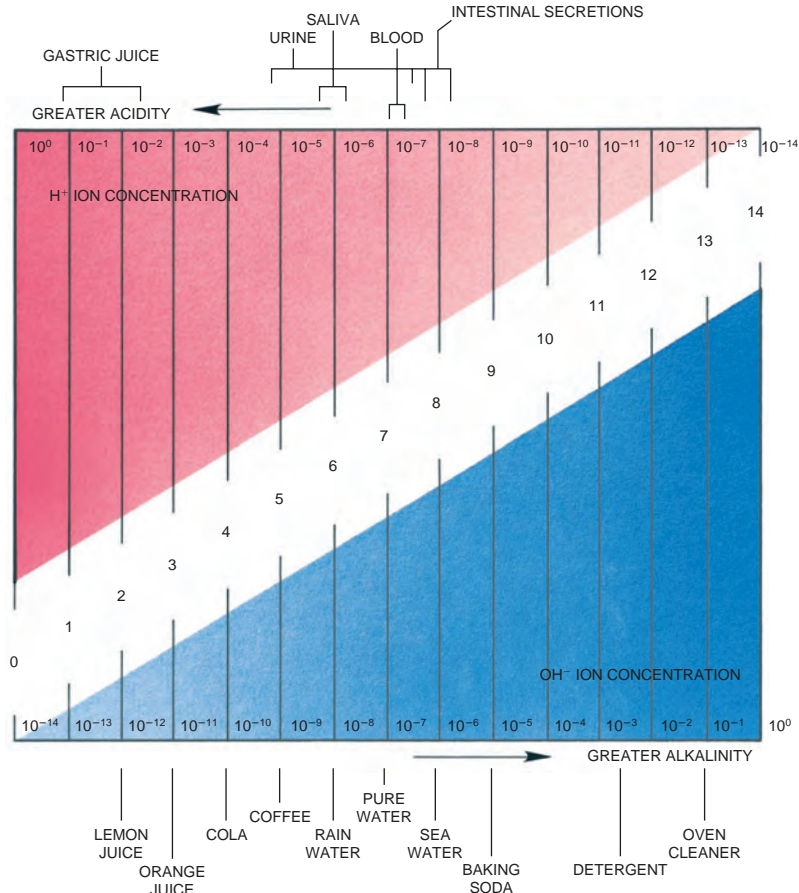
**pH of Some Fluids**

Material	pH
Decinormal HCl	1.0
Gastric juice	1.0–5.0
Thousandth-normal HCl	3.0
Pure water (neutral) at 25°C	7.0
Blood plasma	7.35–7.45
Pancreatic juice	8.4–8.9
Thousandth-normal NaOH	11.0
Decinormal NaOH	13.0

HCl—hydrochloric acid; NaOH—sodium hydroxide

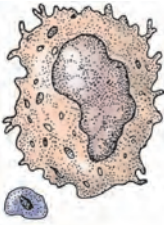
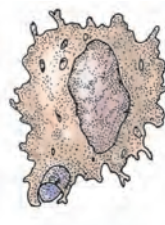
**phacomatosis** (fā'kō-mā-tō-sīs) Phacomatosis.

**phacometachoresis** (fāk"ō-mēt"ā-kō-rē'



**pH SCALE**

Values of body fluids and some familiar solutions

PARTICLE TO BE  
INGESTED BY CELLCELL WALL BEGINS TO  
SURROUND FOREIGN BODYPARTICLE ENCLOSED  
IN PHAGOLYSOSOMEENZYMATIC DEGRADATION  
OF PARTICLE BEGINS

## PHAGOCYTOSIS

sīs) [ " + *metachoresis*, displacement] Phacocelae.

**phacometer** (fāk-ōm'ē-tēr) [Gr. *phakos*, lens, + *metron*, measure] A device for ascertaining the refractive power of a lens.

**phacosclerosis** (fāk'ō-sklēr-ō'sīs) [ " + *sklerosis*, a hardening] A hardening of the crystalline lens of the eye.

**phacoscope** (fāk'ō-skōp) [ " + *skopein*, to examine] An instrument for observing change of curvature of the lens of the eye during accommodation.

**phacotoxic** (fāk'ō-tōk'sīk) [ " + *toxikon*, poison] The toxic effect of the lens of the eye.

**Phaedra complex** (fā-drā) [Wife of King Theseus of Athens] The love and attraction between a stepparent and a stepchild; so named because of Phaedra's tragic love for the son (Hippolytus) of her husband by a previous marriage.

**phaeohyphomycosis** (fē'ō-hī'fō-mī-kō'sīs) [Gr. *phaeos*, gray + Gr. *hyphos*, *hyphē*, web, net + " ] Tissue infection with fungi that have darkly pigmented hyphae. SEE: *hyalohyphomycosis*.

**phag-** SEE: *phago-*.

**phage** (fāj) [Gr. *phagein*, to eat] Bacteriophage.

**phagedena** (fāj-ē-dē'nā) [Gr. *phagedaina*] A sloughing ulcer that spreads rapidly.

**sloughing p.** Hospital gangrene; bedsores.

**phagedenic** (fāj-ē-dēn'īk) Concerning, or of the nature of, phagedena.

**phago-, phag-** [Gr. *phagein*, to eat] Combining forms meaning *eating, ingestion, devouring*.

**phagocyte** (fāj'ō-sīt) [Gr. *phagein*, to eat, + *kytos*, cell] White blood cells (neutrophils and macrophages) that can ingest and destroy microorganisms, cell debris, and other particles in the blood or tissues. SEE: *endocytosis*; *macrophage*; *mononuclear phagocyte system*; *neutrophil*; *phagocytosis*; *pinocytosis*.

**phagocytic** (fāj'ō-sīt'īk) 1. Pert. to phagocytes. 2. Pert. to phagocytosis.

**phagocytize** (fāj'ō-sīt'īz) To ingest bacteria and foreign particles by phagocytosis.

**phagocytoblast** (fāj'ō-sī'tō-blāst) [ " + " + *blastos*, germ] A cell that develops into a phagocyte.

**phagocytolysis** (fāj'ō-sī-tōl'ī-sīs) [ " + *kytos*, cell, + *lysis*, dissolution] Destruction or disintegration of phagocytes. SYN: *phagolysis*.

**phagocytolytic** (fāj'ō-sī'tō-līt'īk) Able to destroy phagocytes.

**phagocytose** (fāj'ō-sī'tōs) [ " + *kytos*, cell] Phagocytize.

**phagocytosis** (fāj'ō-sī-tō'sīs) [ " + " + *osis*, condition] A three-stage process by which phagocytes (neutrophils, monocytes, and macrophages) engulf and destroy microorganisms, other foreign antigens, and cell debris. Generally, these substances must be covered with opsonins, such as antibodies or complement, to initiate binding with cell receptors on the phagocytes, the first stage in phagocytosis. In the second stage, the particle is engulfed and enclosed in a vacuole (phagosome). During the third stage, the phagosome merges with lysosomes whose enzymes destroy the engulfed particle. SEE: *illus.*; *defensin*; *lysozyme*; *macrophage*; *neutrophil*; *oxygen radical*.

Most bacteria are killed during phagocytosis by oxygen radicals, which are formed during the respiratory burst when phagosomes and lysosomes merge. When oxygen radical production is excessive, tissue damage occurs. Lysozymes, defensins, and bacteriocidal permeability-increasing (BPI) protein also destroy bacteria and other organisms; their actions do not depend on the generation of oxygen radicals.

**induced p.** Phagocytosis that is stimulated by the presence of opsonins such as antibodies.

**spontaneous p.** Phagocytosis that occurs in the absence of opsonins.

**phagodynamometer** (fāj'ō-dī'nā-mōm'ē-tēr) [ " + *dynamis*, power, + *metron*, measure] A device that measures energy expended in chewing food.

**phagolysis** (fāj-ōl'ī-sīs) [ " + *lysis*, dissolution] Phagocytolysis.

**phagolysosome** (fāj'ō-lī'sō-sōm) [ " + *lysis*, dissolution, + *soma*, body] The

vacuole formed when the membrane-bound phagosome inside a macrophage fuses with a lysosome. SEE: *phagosome*.

**phagosome** (fäg'ō-sōm) [ʹ + *soma*, body] A membrane-bound vacuole inside a phagocyte that contains material waiting to be digested. Digestion is facilitated by the fusion of the vacuole with the lysosome. The phagosome is then called a phagolysosome or a secondary lysosome. SEE: *phagocytosis*.

**phagotype** (fäg'ō-tīp) [ʹ + *typos*, mark] The classification of bacteria by their sensitivity to phage types.

**phakitis** (fäk-i'tīs) [Gr. *phakos*, lens, + *itis*, inflammation] Inflammation of the crystalline lens of the eye. SYN: *phacitis*; *lenticitis*.

**phakoma** (fä-kō'mä) [ʹ + *oma*, tumor] **1.** A tumor of glial tissue. **2.** An area of myelinated nerve fibers rarely seen in the retina in association with neurofibromatosis. SYN: *phacoma*.

**phakomatosis** (fä'kō-mä-tō'sīs) [Gr. *phakos*, lens, + *oma*, tumor, + *osis*, condition] Any genetic neurocutaneous disorders, in which anomalies are spread unevenly through the body. SYN: *phacomatosis*. SEE: *Hippel's disease*; *neurofibromatosis*; *sclerosis, tuberosus*; *Sturge-Weber syndrome*.

**phalang-** SEE: *phalango-*.

**phalangeal** (fä-län'jē-äl) [Gr. *phalanx*, closely knit row] Concerning a phalanx.

**phalangeal depth ratio** The thickness of the finger at the base of the nail divided by its thickness at the distal interphalangeal joint. A ratio greater than 1 is indicative of clubbing.

**phalangectomy** (fäl-än-jēk'tō-mē) [ʹ + *ektome*, excision] Excision of one or more phalanges.

**phalanges** (fä-län'jēz) Pl. of phalanx. "Phalanges" is used as the plural of only the anatomical sense of "phalanx;" "phalanxes" is the plural for all other senses of "phalanx."

**phalangette** (fäl'än-jēt') The distal phalanx of a digit.

**drop p.** Falling of the distal phalanx of a digit with loss of power to extend it when the hand is pronated. This is due to trauma or overstretching of the extensor tendon.

**phalangitis** (fäl'än-jī'tīs) [Gr. *phalanx*, closely knit row, + *itis*, inflammation] Inflammation of one or more phalanges.

**phalango-, phalang-** [Gr. *phalanx*, closely knit row] Combining form meaning *phalanges* (bones of fingers and toes).

**phalanx** (fäl'änks) *pl. phalanges* [Gr., closely knit row] **1.** Any one of the bones of the fingers or toes. SEE: *skeleton*. **2.** One of a set of plates formed of phalangeal cells (inner and outer) forming the reticular membrane of the organ of Corti.

**distal p.** The phalanx most remote from the metacarpus or metatarsus. SYN: *terminal phalanx*; *ungual phalanx*.

**metacarpal p.** Any phalanx that articulates with a metacarpal bone. SEE: *proximal p.*

**metatarsal p.** Any phalanx that articulates with a metatarsal bone. SEE: *proximal p.*

**middle p.** When there are three phalanges, the phalanx intermediate between distal and proximal phalanges.

**proximal p.** Any phalanx that articulates with a metacarpal or metatarsal bone.

**terminal p.** Distal p.

**ungual p.** Distal p.

**Phalen's test** (fä'länz) A maneuver used in the physical diagnosis of carpal tunnel symptoms. The patient is asked to flex the wrists while keeping the fingers extended, typically by placing the dorsa of the wrists together. The test is positive (suggestive of carpal tunnel syndrome) when wrist flexion produces numbness in the distribution of the median nerve. The accuracy of the test is limited. Also known as Phalen's sign.

**phall-** [Gr. *phallos*, penis] Combining form indicating *penis*.

**phallalgia** (fäl-äl'jē-ä) [Gr. *phallos*, penis, + *algos*, pain] Pain in the penis.

**phallectomy** (fäl-ēk'tō-mē) [ʹ + *ektome*, excision] Surgical removal of the penis.

**phallic** (fäl'ik) Concerning the penis.

**phallicform** (fäl'i-form) [ʹ + L. *forma*, form] Shaped like a penis.

**phallitis** (fäl-i'tīs) [ʹ + *itis*, inflammation] Inflammation of the penis.

**phallocampsis** (fäl-ō-kämp'sis) [ʹ + *kampsis*, a bending] Painful downward curvature of the penis when erect.

**phallocrypsis** (fäl'ō-krīp'sīs) [ʹ + *krypsis*, hiding] Contraction of the penis so that it is almost invisible.

**phallosdynia** (fäl-ō-dīn'ē-ä) [ʹ + *odyne*, pain] Pain in the penis.

**phalloid** (fäl'oyd) [ʹ + *eidōs*, form, shape] Similar to a penis.

**phalloidin** (fä-loyd'in) A poisonous peptide from the mushroom *Amanita phalloides*. Ingestion of this can cause death from fulminant hepatic failure.

**phalloscus** (fäl-ōn'kūs) [ʹ + *onkos*, mass] A tumor or swelling on the penis.

**phaloplasty** (fäl'ō-pläs'tē) [ʹ + *plassein*, to form] Reparative or plastic surgery on the penis.

**phalorrhagia** (fäl-ō-rä'jē-ä) [ʹ + *rhegynai*, to burst forth] Hemorrhage from the penis.

**phallus** (fäl'ūs) [Gr. *phallos*, penis] **1.** The penis. **2.** An artificial penis, used as a symbol. **3.** Embryonic structure developing at the tip of the genital tubercle that in the male develops into the penis and in the female, the clitoris.

**phanero-, phaner-** [Gr. *phaneros*, visible]

Combining forms meaning *evident, visible*.

**phanerogenic** (fän"ēr-ō-jën'ik) [" + *gennan*, to produce] Indicating a disease with a known cause.

**phanerosis** (fän"ēr-ō'sis) [Gr.] The process of becoming visible.

**phantasm** (fän'tázm) [Gr. *phantasma*] An optical illusion; an apparition, or illusion of something that does not exist.

**phantasmagoria** (fän'táz-mă-gör'ē-ä) [Gr. *phantasma*, an appearance, + *agora*, assembly, gathering] A series of phantasms, deceptive illusions, either imagined or remembered from a dream.

**phantasmology** (fän'táz-mól'ō-jē) [" + *logos*, word, reason] The study of dreams, phantoms, and spiritually derived apparitions.

**phantasy** (fän'tä-sē) [Gr. *phantasia*, imagination] Fantasy.

**phantogeusia** (fän-tō-gū'sē-ä) [" + *geusis*, taste] An intermittent or persistent taste sensation not produced by an external stimulus.

**phantom** (fän'tüm) [Gr. *phantasma*, an appearance] 1. An apparition. 2. A model of the body or of one of its parts.

**phantosmia** (fän-tōs'mē-ä) [" + *osme*, smell] An intermittent or persistent perception of odor when no odor is inhaled.

**Pharma** The colloquial name for the pharmaceutical industry. The largest companies in the industry, in terms of market capitalization, are sometimes referred to as "Big Pharma."

**pharmacial** (fär'mă-käl) [Gr. *pharmakon*, drug] Concerning pharmacy.

**pharmaceutical** (fär-mă-sū'ti-käl) [Gr. *pharmakoutikos*] Concerning drugs or pharmacy.

**pharmaceutics** (fär-mă-sū'tiks) Pharmacy (1).

**pharmacist** (fär'mă-sist) [Gr. *pharmakon*, drug] A druggist; one licensed to prepare and dispense drugs. SYN: *apothecary*.

**pharmaco-** [Gr. *pharmakon*, drug] Combining form meaning *drug, medicine*.

**pharmacochemistry** (fär'mă-kō-kēm'is-trē) [" + *chemeia*, chemistry] Pharmaceutical chemistry.

**pharmacodiagnosis** (fär'mă-kō-dī'äg-nō'sis) [" + *dia*, through, + *gnosis*, knowledge] The use of drugs in making a diagnosis.

**pharmacodynamics** (fär'mă-kō-dī-năm'iks) [" + *dynamis*, power] The study of drugs and their actions on living organisms.

**pharmacoeocrinology** (fär'mă-kō-ēn'dō-krī-nól'ō-jē) [" + *endon*, within, + *krinein*, to secrete, + *logos*, word, reason] The pharmacology of the function of endocrine glands.

**pharmacoepidemiology** (fär'mă-kō-ē-pī-dēm-ē-ōl'ō-jē) The application of the science of epidemiology to the study of

the effects of drugs, desired and undesired, and uses of drugs in human populations.

**pharmacogenetics** (fär'mă-kō-jën-ēt'iks) [" + *genesis*, generation, birth] The study of the influence of hereditary factors on the response of individual organisms to drugs.

**pharmacogenomics** (fär'mă-kō-jē-nōm'iks, -nōm') The study of the effects of genetic differences among people and the impact that these differences have on the uptake, effectiveness, toxicity, and metabolism of drugs.

**pharmacogeriatrics** (fär-mă-kō-jēr-ē-ä'triks) The study of the dynamics of medication use in the elderly.

**pharmacognosy** (fär-mă-kōg'nō-zē) [Gr. *pharmakon*, drug, + *gnōsis*, knowledge] The scientific study of drugs originating in nature, i.e., derived from animals, minerals, and plants. The field includes the characterization and cultivation, production, and standardization of such drugs.

**pharmacokinetics** (fär'mă-kō-kī-nēt'iks) The study of the metabolism and action of drugs with particular emphasis on the time required for absorption, duration of action, distribution in the body, and method of excretion.

**pharmacologist** (fär'mă-kōl'ō-jist) An individual who by training and experience is a specialist in pharmacology.

**pharmacology** (fär'mă-kōl'ō-jē) [" + *logos*, word, reason] The study of drugs and their origin, nature, properties, and effects upon living organisms.

**pharmacomania** (fär'mă-kō-mā-nē-ä) [" + *mania*, madness] An abnormal desire to give or take medicines.

**pharmacopeia** (fär'mă-kō-pē'ä) [Gr. *pharmakopoeia*, preparation of drugs] An authorized treatise on drugs and their preparation, esp. a book containing formulas and information that provide a standard for preparation and dispensation of drugs.

**Pharmacopeia, United States** (fär-mă-kō-pē'ä) ABBR: USP. A pharmacopeia issued every 5 years, but with periodic supplements, prepared under the supervision of a national committee of pharmacists, pharmacologists, physicians, chemists, biologists, and other scientific and allied personnel. The U.S. Pharmacopeia was adopted as standard in 1906. Beginning with the U.S. Pharmacopeia XIX, 1975, the National Formulary has been included in that publication.

**pharmacophore** (fär'mă-kō-for) [" + *phoros*, bearing] The three-dimensional shape of a molecule that makes it fit and activate cellular receptors.

**pharmacoresistant** (fär'mă-kō-rē-zis'tánt) Unresponsive to drug therapy. The term is used to describe refractory infections or tumors.



**pharmacotherapy** (fär"mä-kō-thēr'ä-pē) [*"* + *therapeia*, treatment] The use of medicine in treatment of disease.

**pharmacovigilance** (fär"mä-kō-vij'ī-lins) [*"* + *"*] The analysis, detection, and prevention of adverse effects caused by medications.

**pharmacy** (fär"mä-sē) [Gr. *pharmakon*, drug] 1. The practice of compounding and dispensing medicinal preparations. 2. A drugstore.

**pharmacy technician** A technician who assists the pharmacist in certain activities such as medication profile reviews for drug incompatibilities, typing of prescription labels, prescription packaging, handling of purchase records, and inventory control, and may, where state law and hospital policy permit, dispense drugs to patients under the supervision of a registered pharmacist.

**Pharm D** *Doctor of Pharmacy.*

**pharyng-** SEE: *pharyngo-*.

**pharyngalgia** (fär"īn-gäl'jē-ä) [Gr. *pharynx*, throat, + *algos*, pain] Pain in the pharynx.

**pharyngeal** (fär-īn'jē-äl) [L. *pharyngeus*] Concerning the pharynx.

**pharyngectomy** (fär-īn-jek'tō-mē) [Gr. *pharynx*, throat, + *ektome*, excision] Partial excision of the pharynx to remove growths or abscesses.

**pharyngismus** (fär"īn-jiz'mūs) [*"* + *-ismos*, condition] Spasm of the muscles in the pharynx. SYN: *pharyngospasm*.

**pharyngitis** (fär"īn-jī'tīs) [*"* + *itis*, inflammation] Inflammation of the mucous membranes and lymphoid tissues of the pharynx, usually as a result of infection.

**ETIOLOGY:** The disease typically is caused by viral or bacterial infections, including influenza virus, *Streptococcus pyogenes*, or *Mycoplasma pneumoniae*. Occasionally, diphtheria or *Candida albicans* is responsible.

**SYMPTOMS:** The predominant symptom is throat pain. Fever, malaise, muscle aches, and painful swallowing also are present.

**TREATMENT:** Gargling with warm salty water provides topical relief. Analgesic drugs, fluids, throat lozenges, or topical anesthetics also are helpful. If rapid tests or culture results identify streptococci, then penicillin or erythromycin usually is curative.

**acute p.** Inflammation of the pharynx with pain in the throat.

**SYMPTOMS:** Symptoms include malaise, fever, dysphagia, throat pain, and difficulty swallowing.

**TREATMENT:** Local treatment includes gargles, lozenges, and topical application to the oral pharynx. General treatment involves bedrest, adequate fluids, and analgesics. An appropriate antibiotic should be given if there is evidence of bacterial infection.

**atrophic p.** A chronic form of pharyngitis with some atrophy of mucous glands and abnormal secretion.

**bacterial p.** Severe, epidemic, pseudomembranous inflammation of the fauces and tonsils caused by group A beta-hemolytic streptococcus. It was formerly known as *septic sore throat*.

**chronic p.** Pharyngitis associated with pathology in the nose and sinuses, mouth breathing, excessive smoking, and chronic tonsillitis. Dryness and irritation of the throat and a cough characterize this condition. Intranasal medication and removal of pathological factors in sinuses and tonsillectomy are the treatment choices.

**diphtheritic p.** Sore throat with general symptoms of diphtheria and formation of a true membrane.

**granular p.** Chronic pharyngitis with granulations seen on the pharynx.

**p. herpetic** Pharyngitis characterized by formation of vesicles and ulcers.

**hypertrophic p.** Chronic pharyngitis with thickened red mucous membrane on each side with a glazed central portion.

**membranous p.** Pharyngitis characteristic of diphtheria, in which an exudate in the pharynx or on the tonsils forms a false membrane.

**streptococcal p.** A common bacterial infection of the throat and tonsils, esp. in children between the ages of 5 and 15, typically characterized by fever, sore throat, painful swallowing, exudates on the tonsils, and swollen anterior cervical lymph nodes. The disease is caused by infection with group A beta-hemolytic streptococci and may be treated with a variety of antibiotics, including penicillins and macrolides. It may occasionally produce late complications, including rheumatic fever or poststreptococcal glomerulonephritis.

**p. ulcerosa** Pharyngitis with fever, pain, and the formation of ulcerations.

**pharyngo-, pharyng-** [Gr. *pharynx*, throat] Combining forms meaning *throat*.

**pharyngocele** (fär-īn'gō-sēl) [*"* + *kele*, tumor, swelling] Hernia through the pharyngeal wall.

**pharyngoconjunctival fever, acute** (fä-rīng'gō-kōn-jūnk'tī'väl) ABBR: APC. An acute disease consisting of fever, pharyngitis, and conjunctivitis. Treatment is symptomatic.

**pharyngoepiglottic, pharyngoepiglottidean** (fä-rīng'gō-ēp'ī-glōt'īk, -glō-tīd'ē-än) [*"* + *epi*, upon, + *glottis*, glottis] Concerning the pharynx and glottis.

**pharyngoesophageal** (fä-rīng'gō-ē-sōf'ä-jē'äl) [*"* + *oisophagos*, esophagus] Concerning the pharynx and esophagus.

**pharyngography** (fär-īng-gōg'rä-fē) Radiographical examination of the phar-

ynx after ingestion of a contrast medium.

**pharyngology** (fă-rîng'gō-lă-rîn'jē-ăl) [" + *larynx*, larynx] Concerning the pharynx and larynx.

**pharyngolith** (făr-in'gō-lîth) [" + *lithos*, stone] A stone in pharyngeal walls.

**pharyngology** (făr'in-göl'ō-jē) [" + *logos*, word, reason] The branch of medicine dealing with the pharynx.

**pharyngomaxillary** (fă-rîng'gō-măk'sî-lēr'ē) [" + L. *maxilla*, jawbone] Concerning the pharynx and maxillae.

**pharyngomycosis** (făr-in'gō-mî-kō'sîs) [" + *mykes*, fungus, + *osis*, condition] Disease of the pharynx caused by fungi.

**pharyngonasal** (fă-rîng'gō-nă'săl) [" + L. *nasus*, nose] Concerning the pharynx and nose.

**pharyngo-oral** (fă-rîng'gō-or'ăl) [" + L. *os*, mouth] Concerning the pharynx and mouth.

**pharyngopalatine** (fă-rîng'gō-păl'ă-tîn) [" + L. *palatum*, palate] Concerning the pharynx and palate.

**pharyngoparalysis** (făr-in'gō-păr-ăl'î-sîs) [" + *paralysis*, a loosening at the side] Paralysis of the muscles of the pharynx.

**pharyngopathy** (făr'in-göp'ă-thē) [" + *pathos*, disease, suffering] Any disorder of the pharynx.

**pharyngoplasty** (făr-in'gō-plăs'tē) [" + *plassein*, to form] Reparative surgery of the pharynx (e.g., to treat obstructive sleep apnea).

**pharyngorhinoscopy** (făr-in'gō-rî-nôs'kō-pē) [" + " + *skopein*, to examine] Nasopharyngoscopy.

**pharyngoscope** (făr-in'gō-skōp) [" + *skopein*, to examine] An instrument for visual examination of the pharynx.

**pharyngoscopy** (făr'in-gôs'kō-pē) Visual examination of the pharynx.

**pharyngospasm** (făr-in'gō-spăzm) [" + *spasmus*, a convulsion] Pharyngismus.

**pharyngostenosis** (fă-rîng'gō-stē-nō'sîs) [" + *stenosis*, narrowing] Narrowing or stricture of the pharynx.

**pharyngotome** (făr-in'gō-tôm) [" + *tome*, incision] An instrument for incision of the pharynx.

**pharyngotomy** (făr-in-gôt'ō-mē) Incision of the pharynx.

**pharyngotonsillitis** (fă-rîng'gō-tôn'sî-lî'tîs) [" + L. *tonsilla*, almond, + Gr. *itis*, inflammation] Inflammation of the pharynx and tonsils.

**pharynx** (făr'înk) *pl.* **pharynges** [Gr.] The passageway for air from the nasal cavity to the larynx and for food from the mouth to the esophagus. The pharynx participates in speech as a resonating cavity. SEE: *pharyngitis*; *mouth* for ill.

**ANATOMY:** The pharynx is a musculomembranous tube extending from the base of skull to the level of the sixth cervical vertebra, where it becomes contin-

uous with the esophagus. The upper portion, the nasopharynx, is above the soft palate, lined with pseudostratified ciliated epithelium, and has openings to the posterior nares and eustachian tubes. The middle part, the oropharynx, is lined with stratified squamous epithelium and has an opening to the oral cavity. The lowest part, the laryngopharynx, is also lined with stratified squamous epithelium and opens inferiorly to the larynx anteriorly and the esophagus posteriorly.

The nerve supply is from the autonomic nervous system and from the vagus and glossopharyngeal nerves. Blood vessels branch from the external carotid artery. Veins form an extensive pharyngeal plexus and drain into the internal jugular vein.

**phase** (făz) [Gr. *phasis*, an appearance]

**1.** A stage of development. **2.** A transitional appearance. **3.** In chemistry, a distinct component of a larger, heterogeneous system, as oil or water when the two are mixed.

**aqueous p.** The water portion of a mixture of liquids and solids.

**continuous p.** The state of a substance in a heterogeneous system in which particles are continuous (e.g., the water particles in which oil has been dispersed).

**disperse p.** The state of a substance in a heterogeneous system in which particles are separated from each other (e.g., oil particles in water).

**lag p.** Lag (2).

**phasic** (fă'sîk) Of, or pert. to, a phase.

**PhD** *Doctor of Philosophy.*

**phe** phenylalanine.

**phenanthrene** (fē-năn'thrēn) C<sub>14</sub>H<sub>10</sub>, a coal tar derivative that is carcinogenic.

**phenate** (fē'năt) A salt of phenic acid (phenol).

**phencyclidine hydrochloride** (fēn-sîk'î-dî-n', -sî'klî, -dî-n) ABBR: PCP. An anesthetic used in veterinary medicine. It is also used illegally as a hallucinogen, and referred to in slang as "PCP" or "angel dust." The drug is potent; intoxication can occur from passive smoking, and even small doses can produce excitement, hallucinations, and psychotic or extremely violent behavior. Moderate doses also cause elevated blood pressure, rapid pulse, increased skeletal muscle tone, and sometimes, myoclonic jerking. Large doses can cause seizures, ataxia, nystagmus, respiratory depression, and death. The pupils of patients intoxicated with PCP are usually of normal size or small but not the pinpoint size seen in opiate use. This, together with the other physical findings, may help clinicians diagnose overdosed patients.

**TREATMENT:** For agitation caused by acute intoxication, diazepam is indi-

cated. Because PCP abusers are often hostile, aggressive, and dangerous, efforts to pacify these patients are contraindicated. Instead, the patient should be isolated in a quiet room and protective measures taken to avoid injury to self or others.

**PROGNOSIS:** Despite medication and psychotherapy, the psychotic symptoms produced by PCP may persist for weeks or months.

**phenobarbital** (fē'nō-bār'bi-tāl) Phenylbarbituric acid, a sedative, hypnotic, and anticonvulsant drug.

**phenocopy** (fē'nō-kōp'ē) [Gr. *phainein*, to show, + *copy*] An individual with a biochemical or physical characteristic that resembles that produced by a genetic mutation but is instead due to an environmental condition.

**phenol** (fē'nōl) **1.** C<sub>6</sub>H<sub>5</sub>OH; a crystalline, colorless or light pink solid, melting at 43°C, obtained from the distillation of coal tar. It has a characteristic odor and is dangerous because of its rapid corrosive action on tissues. SYN: *carbolic acid*. **2.** Any of the aromatic derivatives of benzene with one or more hydroxyl groups attached.

**phenology** (fē-nōl'ō-jē) [Gr. *phainesthai*, to appear, + *logos*, word, reason] The study of the effects of climate on living things.

**phenolsulfonphthalein** (fē'nōl-sūl'fōn-thāl'ē-in) ABBR: P.S.P. A bright red organic chemical C<sub>19</sub>H<sub>14</sub>O<sub>5</sub>S used diagnostically in studies of kidney function, bladder emptying, and, after intra-amniotic injection, in invasive tests for premature rupture of membranes. SYN: *phenol red*.

**phenomenology** (fē-nōm'ē-nōl'ō-jē) [Gr. *phainomenon*, appearing, + *logos*, word, reason] **1.** The study and classification of phenomena. **2.** The science of the subjective processes by which phenomena are presented, with emphasis on mental processes and essential elements of experiences. A phenomenological study emphasizes a person's descriptions of and feelings about experienced events.

**phenomenon** (fē-nōm'ē-nōn) *pl.* **phenomena** [Gr. *phainomenon*, appearing] Any observable or objective symptom, sign, event, or fact.

**on-off p.** In Parkinson's patients, the alternating periods of good control ("on") and poor control ("off") of their symptoms. The on-off phenomenon is often experienced in patients undergoing L-dopa therapy.

**phenothiazines** (fē'nō-thī'ā-zēnz) A class of major tranquilizers used to treat psychotic illnesses such as schizophrenia. They have neuroleptic and antiemetic effects. Among the most commonly used agents in this class are chlorpromazine, haloperidol, prochlor-

perazine, and thioridazine. Side effects of these drugs include dystonic reactions, tardive dyskinesia, seizures, and sedation. SEE: *neuroleptic*.

**phenotype** (fē'nō-tīp) [Gr. *phainein*, to show, + *typos*, type] The expression of the genes present in an individual. This may be directly observable (e.g., eye color) or apparent only with specific tests (e.g., blood type). Some phenotypes, such as the blood groups, are completely determined by heredity, while others are readily altered by environmental agents. SEE: *genotype*.

**phenozygous** (fē-nōz'ī-gūs) [*l'* + *zygon*, yoke] Possessing a cranium much narrower than the face.

**phentermine** (fēn'tēr-mēn) An amphetamine-like substance that enhances weight loss. When used with fenfluramine hydrochloride, a similar drug, it has been implicated in the destruction of the pulmonary valve of a small percentage of patients.

**phenyl** (fēn'īl, fē'nīl) The univalent radical of phenol, C<sub>6</sub>H<sub>5</sub>.

**phenylalanine** (fēn'īl-āl'ā-nīn) ABBR: phe. An essential amino acid, one of the two linked amino acids in the sugar substitute aspartame. The genetically determined inability to dispose of excess phenylalanine is known as phenylketonuria (PKU). SEE: *phenylketonuria*.

**phenylamine** (fēn-īl'ā-mēn) C<sub>6</sub>H<sub>5</sub>N; the simplest aromatic amine, an oily liquid derived from benzene. It is used in manufacture of dyes for medical and industrial purposes. SYN: *aminobenzene*.

**phenylethylamine** (fēn'īl-ēth'īl-āl'ā-mēn) ABBR: PEA. An alkaloid synthesized from the amino acid phenylalanine. It is found in the brain, where it contributes to the release of dopamine and endorphins. It is concentrated in chocolate and thought to be an antidepressant.

**phenylhydrazine** (fēn'īl-hī'drā-zēn) An oily nitrogenous base used as a test for the presence of sugar in the urine.

**phenylketonuria** (fēn'īl-kē'tō-nū-rē-ā) ABBR: PKU. A congenital autosomal recessive disease marked by failure to metabolize phenylalanine to tyrosine. It results in severe neurological deficits in infancy if it is unrecognized or left untreated. PKU is present in about 3.5 in 10,000 newborns in the U.S. In this disease, phenylalanine and its by-products accumulate in the body, esp. in the nervous system, where they cause severe mental retardation (IQ test results often below 40), seizure disorders, tremors, gait disturbances, coordination deficits, and psychotic or autistic behavior. Eczema and an abnormal skin odor also are characteristic. The consequences of PKU can be prevented if it is recognized in the first weeks of life and a phenylalanine-restricted (very low protein)

diet is maintained throughout infancy, childhood, and young adulthood. SYN: *Folling's disease*.

**PREVENTION:** The U.S. Preventive Services Task Force recommends that all newborns be screened for PKU before discharge from the nursery or in the first 2 weeks of life. The test's accuracy is highest if it is performed no sooner than 24 hr after birth. Mass screening for the disease began in the 1960s. Some women with PKU are now of childbearing age. During their pregnancies, strict adherence to a low-phenylalanine diet will help to prevent fetal malformations. Chorionic villus sampling can detect PKU prenatally.

**PATIENT CARE:** Testing newborns for PKU is typically performed with a heel-stick specimen of blood, which is allowed to dry on blotting paper before being sent to the lab for the Guthrie test. The presence of phenylpyruvic acid in the urine also confirms the diagnosis (a few drops of 10% ferric acid are added to a wet diaper, resulting in a deep, bluish coloration if the test is positive. Since urinary levels of the acid vary according to the amount of protein ingested, testing should be repeated 4 to 6 weeks after birth. If elevated levels of phenylalanine are found, additional tests are performed to confirm the diagnosis.

Effective treatment requires that phenylalanine blood levels be maintained between 3 and 9 mg/dl. This means severely limiting natural proteins in the diet, as most contain 5% phenylalanine. An enzymatic hydrolysate of casein (Lofenalac or Pregestimil) is substituted for milk for affected infants, providing normal amounts of protein other than phenylalanine, plus additional carbohydrates and fat. As the child grows, breads, cheese, eggs, flour, meat, poultry, fish, nuts, milk, legumes, and phenylalanine-type sugar substitutes must be avoided. Frequent blood and urinary testing evaluates dietary effects. Overzealous restriction can cause phenylalanine deficiency. Parents also need to understand normal growth and development to help them to recognize development delays related to PKU. As the child becomes older and dietary supervision by parents less possible, restriction deviations are more likely to occur, putting the child at risk for neurological damage. Involving the child from early on in choosing permitted low-protein foods that he/she prefers helps to develop responsible behaviors.

**phenylpyruvic acid** (fēn'īl-pī-roo'vik) A metabolic derivative of phenylalanine.

**phenylpyruvic acid oligophrenia** A form of inherited mental retardation resulting from phenylketonuria.

**phenylthiocarbamide** (fēn'īl-thī'ō-kār'bā-mīd) ABBR: PTC. A chemical used in studying medical genetics to detect the presence of a marker gene. About 70% of the population inherit the ability to note the taste of phenylthiocarbamide to be extremely bitter. To the remainder of the population, it is tasteless. The gene for tasting is dominant and is expressed in both homozygous and heterozygous individuals. SYN: *phenylthiourea*.

**phenylthiourea** (fēn'īl-thī'ō-ū-rē'ā) Phenylthiocarbamide.

**phenytoin** (fēn'ī-tō-īn) An anticonvulsant drug used primarily to treat patients with seizure disorders, including tonic-clonic and partial complex seizures and status epilepticus. It also can be used as an antiarrhythmic drug. Side effects of phenytoin include hyperplasia of the gums, ataxia, nystagmus, and neurological depression. Its use alters the metabolism of many other drugs that the liver degrades. SYN: *diphenylhydantoin sodium*.



Because of the drug's effects on heart rhythm, cardiac monitoring is required during intravenous infusions.

**pheochrome** (fē'ō-krōm) [Gr. *phaios*, dusky, + *chroma*, color] Staining darkly with chrome salts.

**pheochromoblast** (fē'ō-krō'mō-blāst) [" + " + *blastos*, germ] Embryonic cells that develop into pheochromocytes.

**pheochromocyte** (fē'ō-krō'mō-sīt) [" + " + *kytos*, cell] A chromaffin cell, such as one of those in the adrenal medulla, that gives a positive chromaffin reaction, i.e., it yields a yellowish reaction with chrome salts.

**pheochromocytoma** (fē-ō-krō'mō-sī-tō'mā) [" + " + " + *oma*, tumor] A tumor derived from neural crest cells of the sympathetic nervous system that is responsible for about 0.1% to 2% of all cases of hypertension. The tumor releases catecholamines (e.g., norepinephrine and epinephrine), which cause episodic or sustained signs and symptoms (e.g., palpitations, sweating, headaches, fainting spells, tremor, nausea, dyspepsia, pallor, chest or abdominal pain, hyperglycemia, weakness, anxiety or feelings of impending doom, and hypertensive emergencies). It may result from an inherited autosomal dominant trait. All races and both sexes are affected, with symptoms most commonly beginning between ages 30 and 40. SEE: *catecholamine*; *multiple endocrine neoplasia*; *paraganglioma*; *Nursing Diagnoses Appendix*.

This neuroendocrine tumor is one of the surgically correctable forms of hypertension. It may be difficult to diag-

nose because the symptoms it causes are found in other, more common, conditions (e.g., anxiety disorders, alcohol withdrawal, and hyperthyroidism).

The tumor is located in the adrenal gland itself in about 85% of cases, but sympathetic tissues are distributed widely throughout the body. As a result, catecholamine-releasing tumors may be found in the urinary bladder, carotid bodies, paravertebral tissues, and other sites in the neck, thorax, abdomen, or pelvis. Neuroendocrine tumors found outside the adrenal glands are called paragangliomas. Some patients have multiple tumors. About 10% of patients with pheochromocytoma also have multiple endocrine neoplasias, one of several genetic syndromes in which pheochromocytomas are associated with adenomas or tumors of other glands.

**DIAGNOSIS:** The patient's urine or blood is tested to determine whether it contains excessive levels of catecholamines or their metabolites. If so, imaging studies (e.g., computed tomography, magnetic resonance imaging, or radioisotope or nuclear scanning) are used to locate the tumor before surgery.

**PATIENT CARE:** Anesthesia for this surgery is challenging because of the hemodynamic instability that can occur during and after the procedure. Hypotension is treated with dopamine, and hypertensive episodes, occurring most commonly during induction, intubation, or tumor manipulation, are treated with nitroprusside or alpha blockers. For the first 24 hr postoperatively when vasopressors, plasma volume expanders, and IV fluids may be required, ICU monitoring is recommended. Other postoperative care includes continuous cardiac monitoring for arrhythmias, hemodynamic monitoring, and assessment for heart failure and angina. Postoperative hypertension is common due to the stress of surgery and adrenal gland manipulation that stimulates catecholamine secretion. Blood pressure must be closely monitored, a quiet, cool environment provided, and clothing and bedding changed as needed in response to the sweating that may occur. Careful blood pressure assessment continues through the first 2 postoperative days, when blood pressure may fall. Postoperative orthostatic hypotension may be a threat to patient safety. Until it resolves, patients need to be taught to get up from the bed or chair slowly and hold on to a solid object. To collect diagnostic specimens from stress-free subjects, the patient is often placed on bedrest. Drugs are withheld that may block or augment test results for catecholamines or metanephrines. If a tumor is identified and surgery is planned, preoperative hydration of the patient prevents hypotension

during anesthetic induction. Medications to blunt the effect of catecholamines (e.g., alpha-adrenergic blocking agents and then beta-adrenergic blocking agents) are administered for 1 to 2 weeks before surgery. Postoperatively, vital signs (esp. blood pressure, via an arterial line), cardiac rhythms, fluid balance, and electrolytes are monitored closely. Analgesics are provided to manage pain, and the blood pressure response is assessed closely so that dosing can be titrated to prevent hypotensive episodes. The abdomen is auscultated for returning bowel sounds and observed for distention. The health care team reassures the patient and family throughout diagnosis and management because the symptoms of this condition often fluctuate dramatically. After discharge, long-term follow-up should be provided by an endocrinologist experienced in the care of patients with pheochromocytoma.

**pheomelanins** (fē-ō-mēl'ă-nīnz) [ + Gr. *melas*, black] Yellow-brown, sulfur-containing pigments present as the pigment in human red hair.

**pheresis** (fār-ē'sis) The removal of blood or other body fluids from a patient, separating certain elements (e.g., immunoglobulins, platelets, or red blood cells) and reinfusing the remaining elements into the patient. SEE: *leukapheresis*; *plateletpheresis*; *plasmapheresis*.

**pheromone** (fēr'ō-mōn) A chemical released by one animal that acts as a form of communication with other animals of the same species. It is often detected by smell and may affect the development, reproduction, or behavior of other individuals.

**Ph.G.** *German Pharmacopeia; Graduate in Pharmacy.*

**PHI** *Protected health information.*

**phial** (fī'āl) [Gr. *phiale*, a bowl] A small vessel for medicine; a vial.

**Philadelphia collar** (fil-ă-dēl'fē-ă) A lightweight orthosis for the head and neck used to restrict cervical movement. SEE: *illus.*

**-philia, -phil, -philic** (fil'ē-ă) [Gr. *philein*,



**PHILADELPHIA COLLAR**



to love] Combining forms used as a suffix meaning *love for, tendency toward, craving for*.

**philosophy** (fī-lōs'ō-fē) **1.** The love or pursuit of knowledge. **2.** A culturally determined system of beliefs, concepts, theories, or convictions.

**philtrum** (fīl-trūm) The median groove on the external surface of the upper lip.

**phimosi**s (fī-mō'sīs) [Gr., a muzzling] Stenosis or narrowness of the preputial orifice so that the foreskin cannot be pushed back over the glans penis. The condition is treated by circumcision.

**p. vaginalis** Narrowness or closure of the vaginal orifice.

**PHI-motion angiography** A laser imaging test to identify abnormal blood vessels in the choroidal layer beneath the retina. These abnormal vessels may leak, causing central visual field loss in age-related macular degeneration.

**phlebalgia** (flē-bāl'jē-ā) [Gr. *phlebos*, vein, + *algos*, pain] Pain arising from a vein.

**phlebangioma** (flēb'ān-jē-ō-mā) [" + *angion*, vessel, + *oma*, tumor] An aneurysm occurring in a vein.

**phlebarteriectasia** (flēb'ār-tē'rē-ēk-tā'zē-ā) [" + *arteria*, artery, + *ektasis*, dilatation] Dilatation of blood vessels.

**phlebectasia, phlebectasis** (flēb-ēk-tā'zē-ā, -ēk'tā-sis) [" + *ektasis*, dilatation] Varicosity.

**phlebectomy** (flēb-ēk'tō-mē) [" + *ektome*, excision] Surgical removal of a vein or part of a vein.

**phlebitis** (flē-bī'tīs) [" + *itis*, inflammation] Inflammation of a vein. SYN: *thrombophlebitis*. SEE: *Nursing Diagnosis Appendix. phlebitic, adj.*

**ETIOLOGY:** Common causes include chemical or mechanical irritation of veins by sclerosing intravenous fluids or indwelling catheters, thrombosis, or venous infections.

**SYMPTOMS:** When a superficial vein is affected, the affected vein often is painful, tender, red, warm to touch, indurated along its length, or swollen. Inflammation or occlusion of large or deep veins may be asymptomatic or may produce edema distal to the lesion, as well as chills and fever and pain.

**PREVENTION:** Immobilized patients are at risk for phlebitic disorders. To prevent phlebitis, concentrated or irritating infusions should be given through central venous catheters or ports. Irritated or reddened intravenous sites should be changed, and peripheral catheters should never be left in place longer than 96 hr in adults, according to CDC guidelines. Patients with a history of deep venous thrombosis should adhere closely to anticoagulant drug regimens and avoid prolonged sitting or bedrest. They should avoid medications

that increase the risk of thrombosis, such as estrogen-containing compounds.

**PATIENT CARE:** The Infusion Nurses Society has established the following clinical criteria to grade phlebitis:

0. no symptoms;
1. erythema at access site with or without pain;
2. pain at access site with erythema or edema;
3. pain at access site with erythema, streak formation, or palpable venous cord;
4. pain at access site with erythema, streak formation, palpable venous cord longer than 1 inch (2.5 cm), or purulent drainage.

Superficial and deep vein phlebitis are treated by elevating the extremity along its length and applying warm continuous moist heat for 72 hr to reduce inflammation and relieve pain. Analgesics and anti-inflammatory drugs also are provided to manage discomfort. Any offending solution or catheter is removed from the vein. Phlebitis caused by clots may be treated with antiplatelet or anticoagulant drugs, thrombolytic agents (streptokinase), or, in rare cases, surgery. Antibiotics and/or surgery may be required for venous infections. The circumference of the affected extremity should be measured daily at the same location and compared to the unaffected one. When anticoagulant therapy is used, precautions are taken to monitor its effects and limit the risk of bleeding.

**adhesive p.** Phlebitis in which the vein tends to become obliterated.

**chemical p.** Inflammatory damage to the lining of blood vessels, caused by infusions of highly acidic, highly basic, hypertonic, or sclerosing fluids.

**migrating p.** A transitory phlebitis that appears in a portion of a vein and then clears up, only to reappear later in another location.

**p. nodularis necrotisans** Circumscribed inflammation of cutaneous veins resulting in nodules that ulcerate.

**obliterative p.** Phlebitis in which the lumen of a vein becomes permanently closed.

**puerperal p.** Venous inflammation following childbirth.

**sclerosing p.** Phlebitis in which the veins become obstructed and hardened.

**sinus p.** Inflammation of a sinus of the cerebrum.

**suppurative p.** Phlebitis characterized by the formation of pus.

**phlebo-** [Gr. *phleps, phlebos*] Combining form meaning *vein*.

**phlebogram** (flēb'ō-grām) [Gr. *phlebos*, vein, + *gramma*, something written] An infrequently used term for venogram.

**phlebography** (flē-bōg'rā-fē) [" +

*graphein*, to write] An infrequently used term for venography.

**phlebolith, phlebolite** (flēb'ō-lith, -līt) [ʹ + *lithos*, a stone] A stone within a vein.

**phlebolithiasis** (flēb'ō-li-thr'ā-sīs) [ʹ + *lithiasis*, forming stones] The formation of phleboliths in veins.

**phlebology** (flēb-ōl'ō-jē) [ʹ + *logos*, word, reason] The science of veins and their diseases.

**phlebomanometer** (flēb'ō-mā-nōm'ē-tēr) [ʹ + *manos*, thin, + *metron*, measure] A device for the direct measurement of venous pressure.

**phlebometritis** (flēb'ō-mē-trī'tīs) [ʹ + *metra*, uterus, + *itis*, inflammation] Inflammation of uterine veins.

**phlebomyomatosis** (flēb'ō-mī'ō-mā-tō'sis) [ʹ + *mys*, muscle, + *oma*, tumor, + *osis*, condition] Thickening of the tissue of a vein from an overgrowth of muscular fibers.

**phlebopexy** (flēb'ō-pēk'sē) [ʹ + *peksis*, fixation] Extraserous transplantation of the testes for varicocele, with preservation of the venous network.

**phlebophlebostomy** (flēb'ō-flē-bōs'tō-mē) [ʹ + *phlebos*, vein, + *stoma*, mouth] Surgical anastomosis of veins.

**phleboplasty** (flēb'ō-plās'tē) [ʹ + *plassein*, to form] Plastic repair of an injured vein.

**phleborrhagia** (flēb'ō-rā'jē-ā) [ʹ + *rhegnynai*, to burst forth] Bleeding from a vein.

**phleborrhaphy** (flēb-or'ā-fē) [ʹ + *rhaphe*, seam, ridge] Suturing of a vein.

**phleborrhexis** (flēb'ō-rēk'sis) [ʹ + *rhexis*, rupture] Rupture of a vein.

**phlebosclerosis** (flēb'ō-sklē-rō'sis) [ʹ + *sklerosis*, hardening] Fibrous hardening of a vein's walls.

**phlebotenosis** (flēb'ō-stē-nō'sis) [ʹ + *stenosis*, narrowing] Constriction of a vein.

**phlebotrombosis** (flēb'ō-thrōm-bō'sis) [ʹ + *thrombos*, a clot] Clotting in a vein; phlebitis with secondary thrombosis.

**phlebotomist** (flē-bōt'ō-mīst) [ʹ + *tome*, incision] One who draws blood.

**phlebotomize** (flē-bōt'ō-mīz) To take blood from a person.

**Phlebotomus** (flē-bōt'ō-mūs) [ʹ + *tome*, incision] A genus of insects, the sandflies, belonging to the family Psychodidae, order Diptera. These blood-sucking insects transmit various forms of leishmaniasis, sandfly (pappataci) fever, and Oroya fever.

**P. argentipes** In India, the transmitter of *Leishmania donovani*, causative agent of kala-azar.

**P. chinensis** Transmitter of kala-azar in China.

**P. papatasi** Transmitter of the causative agent of sandfly fever. The virus is

capable of being transmitted through the offspring of flies.

**P. sergenti** Transmitter of kala-azar in the Middle East and India.

**P. verrucarum** The transmitter of *Bartonella bacilliformis*, causative agent of Oroya fever (Carrion's disease), in South America.

**phlebotomy** (flē-bōt'ō-mē) [ʹ + *tome*, incision] The puncturing of a vein, or the surgical opening of a vein, to withdraw blood. **SEE: illus.**



**BLOOD DRAWING FROM THE ANTECUBITAL VEIN**

**phlebovirus** (flē'bō-vī-rūs) A genus of RNA viruses, transmitted to people by the bite of infected insects. Common examples include Rift Valley fever virus and Toscana virus. Phleboviruses can cause hemorrhagic fevers, meningitis, and meningoencephalitis, among other illnesses. **SEE: virus, Toscana.**

**phlegm** (flēm) [Gr. *phlegma*] **1.** Thick mucus, esp. that from the respiratory passages. **2.** One of the four "humors" of early physiology.

**phlegmasia** (flēg-mā-zē-ā) [Gr. *phlegmasia*] Inflammation.

**p. alba dolens** A complication of deep venous thrombosis of the iliofemoral veins in which the affected leg becomes extremely pale, swollen, and tender. **SYN: milk leg; white leg.** **SEE: deep venous thrombosis.**

**cellulitic p.** Septic inflammation of the connective tissue of the leg following childbirth.

**p. cerulea dolens** A complication of deep venous thrombosis of the iliofemoral veins, in which the entire limb distal to the clot becomes swollen, purple, and painful.

**phlegmatic** (flēg-māt'ik) [Gr. *phlegmatikos*] Of sluggish or dull temperament; apathetic.

**phlegmon** (flēg'mōn) [Gr. *phlegmone*, inflammation] Acute suppurative inflammation of subcutaneous connective tissue, esp. a pyogenic inflammation that spreads along fascial planes or other natural barriers.

**diffuse p.** Diffuse inflammation of subcutaneous tissues with sepsis.

**gas p.** Gas gangrene.

**phlegmonous** (flēg'mōn-ūs) Pert. to inflammation of subcutaneous tissues.

**Pleum pratense** (flē'ūm prā-tēn'sē) The scientific name for a common North American grass. Allergens derived from this grass cause seasonal allergies, esp. during the summer. SYN: *timothy grass*.

**phlorhizin** (flō-rī'zīn) A glycoside present in the bark of some fruit trees. It is a powerful inhibitor of sugar transport in some animals.

**phlyctena** (flik-tē'nā) *pl.* **phlyctenae** [Gr. *phlyktaina*] A vesicle, esp. one of many after a first-degree burn.

**phlyctenar** (flik'tē'nār) Concerning a vesicle.

**phlyctenular** (flik-tēn'ū-lār) Resembling or pert. to vesicles or pustules.

**phlyctenule, phlyctenula** (flik'tēn-ūl) [Gr. *phlyktaina*, a blister; L. *phlyctenula*] A small vesicle or blister infiltrated by lymphocytes, as on the cornea or conjunctiva.

**phobia** (fō'bē-ā) [Gr. *phobos*, fear] Any persistent and irrational fear of a specific object, activity, or situation that results in a compelling desire to avoid the feared stimulus. SEE: *Nursing Diagnosis Appendix; Phobias Appendix*.

**social p.** Persistent irrational fear of, and the need to avoid, any situation in which one might be exposed to potentially embarrassing or humiliating scrutiny by others. Even the anticipation of a phobia-producing situation, such as speaking or eating in public, socializing, or using a public toilet, may cause anxiety or terror. Cognitive therapies, desensitization, relaxation therapy, selective serotonin-reuptake inhibitors, and beta-blocking drugs such as atenolol are used to treat this condition.

**-phobia** [Gr.] Combining form used as a suffix indicating *fear, aversion*.

**phobic** (fō'bīk) [Gr. *phobos*, fear] Concerning a phobia.

**phocomelia** (fō'kō-mē'lē-ā) [Gr. *phoke*, seal, + *melos*, limb] A congenital malformation in which the proximal portions of the extremities are poorly developed or absent. Thus the hands and feet are attached to the trunk directly or by means of a poorly formed bone. In some cases this condition was due to the pregnant woman taking thalidomide, a sleeping pill, during early pregnancy. That drug is no longer approved for such use. SYN: *amelia*.

**phocomelus** (fō'kōm'ē-lūs) A person with phocomelia.

**phon-** SEE: *phono-*.

**phonacoscope** (fō'nāk'ō-skōp) [Gr. *phone*, voice, + *skopein*, to examine] A device for amplifying the percussion note or voice sounds.

**phonacoscopy** (fō'nā-kōs'kō-pē) Exam-

ination of the chest with a phonacoscope.

**phonal** (fō'nāl) [Gr. *phone*, voice] Concerning the voice.

**phonasthenia** (fōn-ās-thē'nē-ā) [" + *asthenia*, weakness] Vocal weakness or hoarseness caused by straining the voice.

**phonation** (fō-nā'shūn) The production of sounds used in speech.

**phone** (fōn) [Gr. *phone*, voice] A single speech sound.

**cell p.** A portable telephone, used, for example, in ambulance-to-hospital communications and in 12-lead electrocardiogram transmission in some emergency medical systems.

**phoneme** (fō'nēm) [Gr. *phonema*, an utterance] In linguistics, the smallest unit of speech that distinguishes one sound from another.

**phonendoscope** (fō-nēn'dō-skōp) [Gr. *phone*, voice, + *endon*, within, + *skopein*, to examine] A stethoscope that intensifies sounds.

**phonetics** (fō-nēt'īks) [Gr. *phonetikos*, spoken] The science of speech and pronunciation. SYN: *phonology*.

**phoniatrics** (fō'nē-āt'rīks) [Gr. *phone*, voice, + *iatrikos*, treatment] The study of the voice and treatment of its disorders.

**phonic** (fō'nīk) Concerning the voice or sound.

**phonism** (fō'nīzm) [" + *-ismos*, condition] An auditory sensation occurring when another sense is stimulated. SEE: *synesthesia*.

**phono-** [Gr. *phone*, voice] Combining form indicating *sound, voice*.

**phonocardiogram** (fō'nō-kār'dē-ō-grām) [" + *kardia*, heart, + *gramma*, something written] A graphic recording of the heart sounds.

**phonocardiography** (fō'nō-kār'dē-ōg'rā-fē) [" + " + *graphein*, to write] The mechanical or electronic registration of heart sounds.

**phonocatheter** (fō'nō-kāth'ē-tēr) [" + *katheter*, something inserted] A catheter with a microphone at its end.

**phonogram** (fō'nō-grām) [" + *gramma*, something written] A graphic curve indicating the intensity and duration of a sound.

**phonograph** (fō'nō-grāf) [" + *graphein*, to write] An instrument used for the reproduction of sounds recorded on vinyl.

**phonological disability** (fō'nā-lōj'i-kāl, fōn") Developmental phonological disorders.

**phonological disorder** A disorder in which the individual does not use speech sounds that are appropriate for age and dialect. The disorder may involve production, use, organization, or omission of sounds.

**phonology** (fō-nōl'ō-jē) [" + *logos*, word, reason] Phonetics.

**phonomassage** (fō'nō-mā-sahzh') [Gr. *phone*, voice, + *massein*, to knead] Exciting movements of the ossicles of the ear by means of noise or alternating suction and pressure directed through the external auditory meatus.

**phonometer** (fō-nōm'ē-tēr) [ʹ + *metron*, measure] A device for determining the intensity of vocal sounds.

**phonomyoclonus** (fō'nō-mī-ōk'lō-nūs) [ʹ + *mys*, muscle, + *klonos*, a contraction] Invisible fibrillary muscular contractions revealed by auscultation.

**phonomyogram** (fō'nō-mī'ō-grām) [ʹ + " + *gramma*, something written] A recording of sound produced by the action of a muscle.

**phonomyography** (fō'nō-mī-ōg'rā-fē) [ʹ + " + *graphein*, to write] The recording of sounds made by contracting muscular tissue.

**phonopathy** (fō-nōp'ā-thē) [ʹ + *pathos*, disease, suffering] Any disease of organs affecting speech.

**phonophobia** (fō'nō-fō'bē-ā) [ʹ + *phobos*, fear] 1. A morbid fear of sound or noise. 2. A fear of speaking or hearing one's own voice.

**phonophoresis** (fō-nō-fōr-ē'sis) The use of ultrasound to introduce medication into a tissue. This has been used in treating injuries to soft tissues. Not all medicines are suitable for application using this technique.



The use of phonophoresis should be supervised by persons skilled in using the technique.

**phonopsia** (fō-nōp'sē-ā) [ʹ + *opsis*, vision] The subjective perception of sensations upon hearing certain sounds.

**phonoreceptor** (fō-nō-rē-sēp'tōr) A receptor for sound waves.

**-phoresis** (fō-rē'sis) [Gr. *phoresis*, being borne] Suffix indicating transmission, as *electrophoresis*, *cataphoresis*, *anaphoresis*.

**-phoria** [Gr. *phoresis*, being borne] In ophthalmology, a combining form meaning a turning, with reference to the visual axis, such as cyclophoria.

**Phormia** (for'mē-ā) A genus of blowflies belonging to the family Calliphoridae. Their larvae normally live in decaying flesh of dead animals, but they may infest neglected wounds or sores, giving rise to myiasis.

**phorozoon** (fō'rō-zō'ōn) [Gr. *phoros*, fruitful, + *zoon*, animal] An asexual stage of a multistage animal life cycle.

**phose** (fōz) [Gr. *phos*, light] A subjective sensation of light or color. SEE: *chromophose*; *erythrophose*.

**phosgene** (fōs'jēn) [ʹ + *genes*, born] Carbonyl chloride, COCl<sub>2</sub>, a poisonous gas that causes nausea and suffocation when inhaled; used in chemical warfare.

**phosphagen** (fōs'fā-jēn) Several chemicals, including phosphocreatine, that release energy when split. They are high-energy phosphate compounds.

**phosphatase** (fōs'fā-tās) One of a group of enzymes that catalyze the hydrolysis of phosphoric acid esters. They are of importance in absorption and metabolism of carbohydrates, nucleotides, and phospholipids and are essential in the calcification of bone.

**acid p.** A phosphatase whose optimum pH is between 4.0 and 5.4. It is present in kidney, semen, serum, and prostate gland, and particularly in osteoclasts or odontoclasts in which it is associated with demineralization or resorption of bone and teeth.

**alkaline p.** An enzyme whose optimal pH is about 9.8. It is present in the liver, kidneys, intestines, teeth, plasma, and developing bone. Alkaline phosphatase levels greater than 300% of normal usually signify cholestatic disorders like obstructive jaundice or intrahepatic biliary disease.

**CDc25 p.** A group of intracellular enzymes that regulate cell division, some of which may contribute to the conversion of normal cells to cancer cells.

**phosphate** (fōs'fāt) [Gr. *phosphas*] Any salt of phosphoric acid containing the radical PO<sub>4</sub>. Phosphates are important in the maintenance of the acid-base balance of the blood, the principal ones being monosodium and disodium phosphate. The former is acid, the latter alkaline. In the blood, because of their low concentration, they exert a minor buffering action.

**acid p.** A phosphate in which only one or two hydrogen atoms of phosphoric acid have been replaced by a metal.

**calcium p.** Any one of three salts of calcium and phosphate; used as an antacid and dietary supplement.

**creatine p.** Phosphocreatine.

**triple p.** Calcium, ammonium, and magnesium phosphate.

**phosphate-bond energy** Energy derived from phosphorylated compounds such as adenosine triphosphate (ATP) and creatine phosphate.

**phosphatemia** (fōs'fā-tē'mē-ā) [Gr. *phosphas*, phosphate, + *haima*, blood] Phosphates in the blood.

**phosphatide** (fōs'fā-tīd) Phospholipid.

**phosphatidylcholine** (fōs-fā-tī'dāl-kō'lin, lēn) [ʹ + "'] Lecithin.

**phosphatidyl glycerol** (fōs-fā-tī'dīl) ABBR: PG. A phospholipid found in amniotic fluid, pulmonary effluent, and semen. It first appears in amniotic fluid during week 36 of pregnancy, confirms fetal gestational age, and is an accurate predictor of fetal lung maturity.

**phosphaturia** (fōs'fā-tū-rē-ā) [ʹ + *ouron*, urine] An excessive amount of

phosphates in the urine; often causing renal stones. SYN: *phosphoruria*; *phosphuria*.

**SYMPTOMS:** This condition is characterized by cloudy, opaque, alkaline, and pale urine and pearly or pink-white deposits of phosphates in standing urine.

**phosphene** (fōs'fēn) [Gr. *phos*, light, + *phainein*, to show] A sensation of light caused by electrical or mechanical stimulation of the retina.

**accommodation p.** Phosphene resulting from contraction of the ciliary muscles in accommodation. This is seen esp. in the dark.

**phosphide** (fōs'fid) ["] + *phorein*, to carry] A binary compound of phosphorus with an element or radical.

**aluminum p.** A pesticide used to protect stored grains from insects and rodents. After exposure to water it is converted to hydrogen phosphide, a poison that inhibits cellular oxidative metabolism, esp. in metabolically active organs. It may be toxic or deadly to humans if ingested or inhaled. Its chemical formula is AlP.

**TREATMENT:** There is no specific antidote. Cardiopulmonary support is given to intoxicated patients.

**hydrogen p.** A poison that is released when phosphide pesticides react with water. It inhibits oxidative metabolism in cells and may be deadly if eaten or inhaled. Chemical formula is PH<sub>3</sub>. SYN: *phosphine*.

**zinc p.** A toxic pesticide that releases hydrogen phosphide after exposure to water. Its chemical formula is Zn<sub>3</sub>P<sub>2</sub>.

**phosphine** Hydrogen phosphide.

**phosphite** (fōs'fit) A salt of phosphoric acid.

**phosphamidase** (fōs'fō-ām'ī-dās) An enzyme that catalyzes the conversion of phosphocreatine to creatine and orthophosphate.

**phosphocholine** (fōs'fō-kō'līn, lēn) [Fm. *phospho(rus)* + "] ABBR: Pcho. A choline metabolite.

**phosphocreatine** (fōs'fō-krē'ā-tīn) A compound found in muscle. It is important as an energy source, yielding phosphate and creatine in this process, and releasing energy that is used to synthesize adenosine triphosphate. SYN: *creatine phosphate*.

**phosphodiesterase** (fōs'fō-dī-ēs'tēr-ās) An enzyme critical for the breakdown of cyclic adenosine monophosphate.

**phosphodiesterase inhibitor** ABBR: PDE inhibitor. Any agent that blocks phosphodiesterase, inhibiting the production of second messengers within cells, such as cyclic adenosine monophosphate or cyclic glucose monophosphate. Drugs that inhibit PDE include sildenafil, an agent used to treat erectile dysfunction, and other agents used as

positive inotropes and vasodilators in heart failure.

**phosphofructokinase** (fōs'fō-frūk'tō-kī'nās) A glycolytic enzyme that catalyzes phosphorylation of fructose-6-phosphate by adenosine triphosphate.

**phosphofructokinase deficiency** An autosomal recessive disorder in which a deficiency in phosphofructokinase results in muscular weakness, exercise intolerance, hemolysis, hyperuricemia, and myoglobinuria.

**phospholipase** (fōs'fō-līp'ās) An enzyme that catalyzes hydrolysis of a phospholipid.

**phospholipid** (fōs'fō-līp'id) [Gr. *phos*, light, + *phorein*, to carry, + *lipos*, fat] A diglyceride containing phosphorus, such as lecithin. The lipid portion of cell membranes is primarily phospholipids. SYN: *phosphatide*; *phospholipin*.

**phospholipin** (fōs'fō-līp'in) Phospholipid.

**phosphonecrosis** (fōs'fō-nē-krō'sīs) ["] + *phorein*, to carry, + *nekros*, dead, + *osis*, condition] Necrosis of the alveolar process in persons working with phosphorus.

**phosphonuclease** (fōs'fō-nū'klē-ās) An enzyme that catalyzes the hydrolysis of nucleotides to nucleosides and phosphoric acid.

**phosphopenia** (fōs'fō-pē'nē-ā) ["] + *phorein*, to carry, + *penia*, lack] A deficiency of phosphorus in the body.

**phosphoprotein** (fōs'fō-prō'tē-īn) ["] + " + *protos*, first] One of a group of proteins in which the protein is combined with a phosphorus-containing compound. Caseinogen and vitellin are examples. Phosphoprotein was formerly called nuclealbumin.

**phosphor** (fōs'fōr) A substance in radiographic intensifying screens, fluorescent image intensifiers, or other image receptors that convert photons of energy into light, thereby amplifying the image.

**rare earth p.** An element such as yttrium, gadolinium, or lanthanum, that is used for ultra-high-speed radiographic intensification screens.

**phosphorated** (fōs'fō-rā'tēd) ["] + *phorein*, to carry] Impregnated with phosphorus.

**phosphorescence** (fōs'fō-rēs'ēns) The induced luminescence that persists after cessation of the irradiation that caused it; the emission of light without appreciable heat.

**phosphoribosyltransferase** (fōs'fō-rī'bō-sīl-trāns'fēr-ās) An enzyme that catalyzes reconversion to the ribonucleotide stage of the purine bases, hypoxanthine and guanine. The deficiency of this enzyme is inherited as an X-linked trait.

**phosphorism** (fōs'for-īzm) ["] + " + *-ismos*, condition] Chronic poisoning from phosphorus.



**phosphorolysis** (fōs'fō-rōl'i-sīs) The chemical reaction of incorporating phosphoric acid into a molecule.

**phosphorous acid** (fōs-fō'rūs, fōs'for-ūs) [" + *phoros*, carrying]  $H_3PO_3$ ; a crystalline acid formed when phosphorus is oxidized in moist air.

**phosphoruria** (fōs'for-ū'rē-ā) [" + *phorein*, to carry, + *ouron*, urine] Phosphaturia.

**phosphorus** (fōs'fā-rūs) [Gr. *phos*, light, + *phoros*, carrying] SYMB: P. A non-metallic element not found in a free state but in combination with oxygen and cations such as calcium, sodium, and potassium; atomic weight 30.9738; atomic number 15. The normal serum value of phosphorus is 2.5 to 4.5 mg/dl. Normally, plasma concentrations of phosphorus and calcium have a reciprocal relationship: as one increases, the other decreases.

The adult body contains from 600 to 900 g of phosphorus in various forms: 70% to 80% in bones and teeth, principally combined with calcium; 10% in muscle; and 1% in nerve tissue. Minimum daily requirement is approx. 800 mg. This amount should be increased during pregnancy and lactation. Vitamin D is important in the absorption and metabolism of phosphorus. Excess phosphorus is excreted by the kidneys and intestines, about 60% being excreted in urine principally as phosphates. Phosphorus deficiency is characterized by impaired appetite, weight loss, retarded growth, weakness, and malformation of bones and teeth. Bony malformation resulting from disorders of phosphorus metabolism is known either as rickets or osteomalacia.

Phosphorus compounds are found in the nucleic acids DNA and RNA; in adenosine triphosphate, the principal energy source in cells; and in phosphocreatine, a secondary energy source for muscle contraction.

**ETIOLOGY:** Deficiencies or excesses of serum phosphorus are caused most often by abnormalities in the excretion of phosphorus by the kidneys.

**SOURCES:** Phosphorus is found in many foods. Excellent sources are almonds, beans, barley, bran, cheese, cocoa, chocolate, eggs, lentils, liver, milk, oatmeal, peanuts, peas, rye, walnuts, and whole wheat. Good sources are asparagus, beef, cabbage, carrots, celery, cauliflower, chard, chicken, clams, corn, cream, cucumbers, eggplant, fish, figs, meat, prunes, pineapples, pumpkin, raisins, and string beans.

**p. poisoning** Poisoning caused by the ingestion of substances containing yellow phosphorus, such as rat and roach poison. Before the introduction of safety matches (which contain no yellow phosphorus), phosphorus poisoning was

quite common. Yellow phosphorus is also used in manufacturing fireworks and fertilizers. SEE: *Poisons and Poisoning Appendix*.

**SYMPTOMS:** In this type of poisoning acute irritation of the gastrointestinal tract may be followed by liver failure. Kidney damage also may occur. Other symptoms include profound weakness, hemorrhage, and heart failure. Occasionally nervous system symptoms predominate.

**PATIENT CARE:** Gastric lavage is performed if phosphorus was swallowed. The airway is protected by cuffed endotracheal intubation. Charcoal and a cathartic drug are administered. Depending on the length of time since ingestion, intravenous fluids may be used to flush the poison out of the system by diuresis. In some cases, peritoneal or hemodialysis may be needed. The patient requires close monitoring for delayed effects for at least 24 hr. If the poison was intentionally ingested, the patient is placed on suicide precautions and referred for further psychological counseling.

**phosphoryl** (fōs'for-īl) The radical [PO]=.

**phosphorylase** (fōs-for'ī-lās) An enzyme that catalyzes the formation of glucose-1-phosphate from glycogen.

**phosphorylation** (fōs'for-ī-lā'shūn) The combining of a phosphate with an organic compound.

**phosphuria** (fōs-fū'rē-ā) [Gr. *phos*, light, + *phoros*, a bearer, + *ouron*, urine] Phosphaturia.

**phot** (fōt) [Gr. *photos*, light] ABBR: ph. The unit of photochemical energy equal to 1 lumen/cm<sup>2</sup> or about 929 foot-candles.

**phot-** SEE: *photo-*.

**photalgia** (fō-tāl'jē-ā) [Gr. *photos*, light, + *algos*, pain] Pain produced by light.

**photaugiaphobia** (fō-taw'jē-ā-fō'bē-ā) [Gr. *photaugia*, glare, + *phobos*, fear] Intolerance of bright light.

**photic** (fō'tik) **1.** Concerning light. **2.** In biology, pert. to the production of light by certain organisms.

**p. driving** Exposing a subject to flashing lights during an EEG (electroencephalographic) recording.

**p. sneezing** Sneezing initiated or hastened in its onset by light stimulus. It is sometimes due to light causing tears, which, upon draining into the nasal area, cause sneezing. SYN: *photoptarmosis*.

**photism** (fō'tizm) [" + *-ismos*, condition] A subjective sensation of color or light produced by a stimulus of another sense, such as smell, hearing, taste, or touch. SEE: *synesthesia*.

**photo-** [Gr. *photos*] Combining form indicating light.

**photoactinic** (fō"tō-āk-tīn'ik) Emitting both luminous and actinic rays.

**photoaging** Skin damage as a result of exposure to ultraviolet rays. SYN: *dermatoheliosis*.

**photoallergy** (fō"tō-äl'ēr-jē) [Gr. *photos*, light, + *allos*, other, + *ergon*, work] A contact dermatitis produced by the interaction between ultraviolet light rays and topically applied chemicals such as sunscreens, perfumes, phenothiazines, sulfonamides, and some components in soaps. Sunlight changes the structure of these chemicals, causing them to become allergens. An eczematous rash results. Avoiding the inciting agent is preventive; topical corticosteroid drugs provide relief from the rash. SEE: *persistent light reaction*; *photosensitivity*; *phototoxic*.

**photoautotrophic** (fō"tō-aw"tō-trōf'ik) [" + "] Capable of synthesizing nutrients from light and inorganic chemicals. Said of certain microorganisms, such as bacteria that contain chlorophyll.

**Photobacterium damsela** (fō"tō-bāk-ter'ē-ūm dām'sēl-ā) [" + "] A gram-negative bacillus formerly classified in the genus *Vibrio*. It is a cause of fulminant wound infections.

**photobiology** (fō"tō-bī-ōl'ō-jē) [" + *bios*, life, + *logos*, word, reason] The study of the effect of light on living things.

**photobiomodulation** [+ *bios*, Gr. life + modulation] The use of low-intensity light, typically in the near-infrared region of the electromagnetic spectrum, to stimulate body tissues, relieve inflammation and pain, improve wound healing, or regenerate damaged cells. It is also known as *low level laser therapy*, or *cold laser therapy*.

**photobiotic** (fō"tō-bī-ōt'ik) [" + *bios*, life] Capable of living only in the light.

**photocarcinogenesis** (fō"tō-cār-sin-ō-jēn'ē-sis) Malignant skin damage caused by exposure to ultraviolet rays.

**photochemistry** (fō"tō-kēm'is-trē) [" + *chemeia*, chemistry] The branch of chemistry concerned with the effects of light rays.

**photochemotherapy** (fō"tō-kē-mō-thēr'ā-pē) The use of light and chemicals together to treat certain conditions, such as psoriasis or cutaneous T cell lymphoma.

**extracorporeal p.** The exposure of blood that is temporarily removed from the body to ultraviolet A radiation. This is used to treat several diseases, including pemphigus vulgaris and cutaneous T cell lymphoma.



Patients exposed to photosensitizing agents, such as psoralens in conjunction with ultraviolet light, have an increased risk of melanoma and squamous cell carcinoma. They should be examined

regularly so that any developing skin cancers will be detected early.

**photochromogen** (fō"tō-krō'mō-jēn) [" + *chroma*, color, + *gennan*, to produce] Certain microorganisms in which a pigment develops when it is grown in the presence of light, such as *Mycobacterium kansasii*.

**photocoagulation** (fō"tō-kō-āg-ū-lā'shūn) The use of intense light or laser to burn or destroy tissue under direct observation; used for treatment of diabetic retinopathy and glaucoma.

**panretinal p.** ABBR: PRP. The use of high-intensity light or laser to create hundreds of tiny retinal burns outside of the vascular arcades. This treatment has been shown to produce regression of abnormal blood vessels in patients with proliferative retinopathy from diabetes or retinal vein occlusion.

**photodermatitis** (fō"tō-dēr-mā-tī'tis) [" + *dermatos*, skin, + *itis*, inflammation] Sensitivity of the skin to light; may be due to photoallergy or to phototoxic reaction.

**photodynamic** (fō"tō-dī-nām'ik) [" + *dynamis*, force] Pert. to the effects of light on biological, chemical, or physical systems.

**p. therapy 1.** In ophthalmology, the use of laser-activated photosensitizing drugs to treat a variety of tumors and nonmalignant conditions such as age-related macular degeneration. **2.** A method of treating cancer by using light-absorbing chemicals that are selectively retained by malignant cells. When these cells are exposed to light in the visible range, the cancer cells are killed. SYN: *photoradiotherapy*.

**photodysphoria** (fō"tō-dīs-for'ē-ā) [" + *dysphoria*, distress] Photophobia.

**photoelectric effect** (fō"tō-ē-lēk'trīk) An interaction between x-rays and matter in which the x-ray photon ejects an inner-shell electron, causing a cascade of outer-shell electrons to fill the hole. The changing of energy shells releases secondary radiation equal to the difference in the binding energies. This absorption reaction increases the patient dose and creates contrast on the radiographic film. It usually occurs at low photon energies.

**photoelectricity** (fō"tō-ē-lēk-trī'sī-tē) [" + *elektron*, amber] Electricity formed by the action of light.

**photoelectron** (fō"tō-ē-lēk'trōn) [" + *elektron*, amber] An electron that is ejected from its orbit around the nucleus of an atom by interaction with a photon of energy (light, x-radiation, and so on).

**photoerythema** (fō"tō-ēr'ī-thē'mā) [" + *erythema*, redness] Reddening of the skin caused by light.

**photofluorography** (fō"tō-flū'ēr-ōg'rā-fē)

Photographing the images seen during fluoroscopic examination.

**photogenic, photogenous** (fō'tō-jĕn'ĭk, -tōj'ĕn-ŭs) Induced by, or inducing, light.

**photokinetic** (fō'tō-kĭn-ĕt'ĭk) [" + *kinētikos*, motion] Reacting with motion to stimulation by light.

**photolabile** (fō-tō-lā'bĭl) The characteristic of being destroyed or inactivated by light.

**photoluminescence** (fō'tō-lŭ-mĭ-nĕs'ĕns) [" + L. *lumen*, light] The power of an object to become luminescent when acted on by light.

**photolysis** (fō-tōl'ĭ-sĭs) [" + *lysis*, dissolution] Dissolution or disintegration under stimulus of light rays.

**photomedicine** (fō'tō-mĕd'ĭ-sĭn) [" + "] The use of light to treat certain conditions. SEE: *hemolytic disease of the newborn*; *phototherapy*; *psoriasis*.

**photometer** (fō-tōm'ĕ-tĕr) [" + *metron*, measure] A device for measuring the intensity of light.

**photometry** (fō-tōm'ĕ-trĕ) Measurement of light rays.

**photomicrograph** (fō'tō-mĭ'krō-grāf) [" + *mikros*, small, + *graphein*, to write] A photograph of an object under a microscope.

**photomultiplier tube** (fō'tō-mŭl'tĭ-plĭ'ĕr) ABBR: PMT. In radiography, an electronic vacuum tube designed to convert light photons into electrical pulses. It is used to digitize incoming light photons prior to the creation of computerized images in nuclear medicine and other imaging modalities.

**photon** (fō'tŏn) [Gr. *photos*, light] A light quantum or unit of energy of a light ray or other form of radiant energy. It is generally considered to be a discrete particle having zero mass, no electric charge, and indefinitely long life.

**photo-onycholysis** (fō-tō-ŏ-nĭ-kŏ-lĭ'sĭs) Separation of the nail from the distal nailbed in conjunction with sun exposure and simultaneous use of drugs such as antibiotics.

**photopatch testing** (fō'tō-pāch'") A test used to identify allergic reactions triggered by ultraviolet (UV) light (specifically, to UVA).

**PATIENT CARE:** Two equivalent samples of the putative allergen are prepared. Each is applied to one side of the upper back of the patient. One side is shielded from exposure to ultraviolet light, and the other is treated with UVA at standardized doses and intervals. The reactions of the skin on either side are compared.

**photoperceptive** (fō'tō-pĕr-sĕp'tĭv) [" + L. *percipere*, to receive] Capable of perceiving light.

**photoperiod** (fō'tō-pĕr'ĕ-ŏd) [" + L.

*periodus*, period] The daily duration of exposure to light of a living thing.

**photoperiodism** (fō'tō-pĕr'ĕ-ŏ-dĭzm) [" + " + Gr. *-ismos*, condition] The periodic occurrence of biological phenomena in relationship to the presence or absence of light. In most animals, the sleep-wake cycle is a form of photoperiodism.

**photophilic** (fō-tō-flĭ'ĭk) [" + *philein*, to love] Seeking, or fond of, light.

**photophobia** (fō'tō-fŏ'bĕ-ā) [" + *phobos*, fear] Unusual intolerance of light, occurring in measles, rubella, meningitis, and inflammation of the eyes. SYN: *photodysphoria*.

**photophoresis** (fō-tō-fŏr-ĕ'sĭs) A technique used in treating cutaneous T-cell lymphoma. It incorporates exposure of a lymphocyte-enriched blood fraction, obtained by use of apheresis to ultraviolet A light after the patient has ingested the cytotoxic agent 8-methoxypsoralen. SYN: *extracorporeal photochemotherapy*.

**photopia** (fō-tō-pĕ-ā) Adjustment of the eye for vision in bright light; the opposite of scotopia.

**photopsia, photopsy** (fō-tŏp'sĕ-ā, fō-tŏp'sĕ) [Gr. *photos*, light, + *opsis*, vision] The subjective sensation of sparks or flashes of light in retinal, optic, or brain diseases.

**photopsin** (fō-tŏp'sĭn) The protein portion (opsin) of the photopigments in the cones of the retina.

**photoptarmosis** (fō'tō-tār-mŏ'sĭs) [" + *ptarmosis*, sneezing] Photic sneezing.

**photometer** (fō-tŏp-tŏm'ĕ-tĕr) [" + *opsis*, vision, + *metron*, measure] A device for determining the smallest amount of light that will make an object visible.

**photoradiometer** (fō'tō-rā'dĕ-ŏm'ĕ-tĕr) [" + L. *radius*, ray, + Gr. *metron*, measure] A device for determining the ability of ionizing radiation to penetrate substances.

**photoradiotherapy** (fō-tō-rā-dĕ-ŏ-thĕr'ā-pĕ) Photodynamic therapy.

**photoreaction** (fō'tō-rĕ-āk'shŭn) [" + LL. *reactus*, reacted] A chemical reaction produced or influenced by light.

**photoreactivation** (fō'tō-rĕ-āk'tĭ-vā'shŭn) Enzymatic repair of lesions such as can be produced in DNA by ultraviolet light.

**photoreception** (fō'tō-rĕ-sĕp'shŭn) [" + L. *recipere*, to receive] The perception of light rays in the visible light spectrum.

**photoreceptor** (fō'tō-rĕ-sĕp'tŏr) Sensory nerve endings or cells that are capable of being stimulated by light. In humans, these include the rods and cones of the retina.

**photorejuvenation** (fō'tō-rĕ-jŭ-vĕ-nā'shŭn) [Gr. *photos*, light, + L. *re*, again, + *juvenis*, young] The cosmetic

repair of skin damaged by sunlight or other ultraviolet radiation. It may involve dermabrasion, chemical peels, or pulsed-light therapy.

**photoretinitis** (fō'tō-rēt'ī-nī'tīs) [Gr. *photos*, light, + L. *retina*, retina, + Gr. *itis*, inflammation] Damage to the macula of the eye owing to exposure to intense light. SEE: *blindness*, *eclipse*.

**photoscan** (fō'tō-skān") A representation of the concentration of a radioisotope outlining an organ in the body. The map is printed on photographic paper. SEE: *scintiscan*.

**photosensitivity** (fō'tō-sēn'sī-tīv'ī-tē) [" + "] Sensitivity to light either because of an autoimmune illness (e.g., systemic lupus erythematosus), or because of the use or application of sensitizing drugs or chemicals.

**DRUG-INDUCED PHOTOSENSITIVITY:** Individuals using certain drugs or other chemicals may develop dermatitis or sunburn after exposure to light of an intensity or duration that normally would not have affected them. These phototoxic reactions result from interaction between ultraviolet light and chemicals contained in the drug, but are not mediated by the immune system. Agents associated with photosensitizing reactions include coal tar derivatives found in perfumes and dyes, antiemetics, estrogens and progestins, psoralens, sulfonamides, sulfonylureas (oral hypoglycemic agents), thiazide diuretics, and tetracyclines. Persons known to have increased sensitivity to light caused by the medications they are taking should avoid exposure to sunlight or, when in the sun, should use sunscreens or clothing to cover exposed areas of the skin. SEE: *photoallergy*.

**photosensitization** (fō'tō-sēn'sī-tī-zā'shūn) A condition in which the skin reacts abnormally to light, esp. ultraviolet radiations or sunlight. It is due to the presence of drugs, hormones, or heavy metals in the system. SEE: *photoallergy*.

**photosensitizer** (fō'tō-sēn'sī-tī-zēr) A substance that, in combination with light, will cause a sensitivity reaction in the substance or organism.

**photosensor** (fō'tō-sēn'sēr) A device that detects light.

**photostable** (fō'tō-stā'b'l) [" + L. *stabilis*, stable] Uninfluenced by exposure to light.

**photostimulable phosphor system** ABBR: PSP system. Filmless radiography; i.e., a radiographic system that stores image data as electron charges on a cassette (an imaging plate). When scanned by a laser, the stored charges emit light whose intensities can be digitized and displayed as a radiograph. The cassette, unlike an exposed film, is reusable.

**photostimulate** To energize (or encourage a response in) a substance with light or x-rays. **photostimulable**, *adj.*

**photosynthesis** (fō'tō-sīn'thē-sīs) [" + *synthesis*, placing together] The process by which plants manufacture carbohydrates and oxygen by combining carbon dioxide and water, using light energy in the presence of chlorophyll.

**phototaxis** (fō'tō-tāk'sīs) [Gr. *photos*, light, + *taxis*, arrangement] The reaction and movement of cells and microorganisms under the stimulus of light.

**phototest** (fō'tō-tēst") The use of controlled exposures to ultraviolet light (and ambient or polychromatic light) to determine the cause, or presence of, a rash, thought to be triggered by sunlight exposure.

**phototherapy** (fō'tō-thēr'ā-pē) [" + *therapeia*, treatment] Exposure to sunlight or to ultraviolet (UV) light for therapeutic purposes. One example of phototherapy is the treatment of neonatal jaundice, in which the jaundiced infant is exposed to UV light to decrease bilirubin levels in the bloodstream, thereby reducing the risk of bilirubin deposition in the brain. Phototherapy also is used to treat some skin diseases, including cutaneous T-cell lymphoma and psoriasis, and to relieve the symptoms of seasonal affective disorder. SYN: *light therapy*. SEE: *photodynamic therapy*; *seasonal affective disorder*.



The eyes and often the gonads of treated patients are shielded from the light source to prevent them from being damaged.

**photothermal** (fō'tō-thēr'mäl) [" + *therme*, heat] Concerning heat produced by light.

**photothermolysis, selective** (fō'tō-thēr-mäl'i-sīs) The use of short pulses of light to treat skin conditions. This method causes less damage to normal tissue than do continuous beam lasers. SEE: *laser*.

**phototimer** (fō'tō-tīm'ēr) SEE: *control*, *automatic exposure*.

**phototoxic** (fō'tō-tōk'sīk) [" + *toxikon*, poison] Pert. to the harmful reaction produced by light energy, esp. that produced in the skin. Simple sunburn of the skin is an example of phototoxicity.

**phototrophic** (fō'tō-trōf'ik) [" + *trophe*, nutrition] Concerning the ability to use light in metabolism.

**phototropism** (fō-tōt'rō-pīz'm) [" + *tropos*, turning, + *-ismos*, condition] A tendency exhibited by green plants and some microorganisms to turn toward or grow toward light.

**photoria** (fō-tū-rē-ā) [" + *ouron*, urine] Excretion of phosphorescent urine.

**phren-** SEE: *phreno-*.

**phrenalgia** (frĕ-nāl'jĕ-ă) [Gr. *phren*, mind, diaphragm + *algos*, pain] **1.** Pain of functional origin. **2.** Pain in the diaphragm.

**phrenectomy** (frĕ-nĕk'tō-mĕ) [Gr. *phren*, diaphragm, + *ektome*, excision] **1.** Surgical excision of all or part of the diaphragm. **2.** Surgical resection of part of the phrenic nerve.

**phrenetic** (frĕn-ĕt'ĭk) [Gr. *phren*, mind] **1.** Maniacal; frenzied. **2.** A maniac.

**-phrenia** Combining form indicating *mental disorder*.

**phrenic** (frĕn'ĭk) [Gr. *phren*, diaphragm] Concerning the diaphragm, as the phrenic nerve.

**phrenicectomy** (frĕn-ĭ-sĕk'tō-mĕ) [Gr. *phren*, diaphragm, + *ektome*, excision] Phreniconerectomy.

**phreniconerectomy** (frĕn'ĭ-kō-nū-rĕk'tō-mĕ) [" + *neuron*, nerve, + *ektome*, excision] Excision of part of the phrenic nerve.

**phrenicotomy** (frĕn'ĭ-kōt'ō-mĕ) [" + *tome*, incision] Cutting of the phrenic nerve to immobilize a lung by inducing paralysis of one side. This causes the diaphragm to rise, compressing the lung and diminishing respiratory movement, thus resting the lung on that side.

**phreno-, phren-** [Gr. *phren*, mind; L. *phrenicus*, diaphragm] **1.** Combining form meaning *mind*. **2.** Combining form meaning *diaphragm*.

**phrenodynia** (frĕn'ō-dĭn'ĕ-ă) [" + *odyne*, pain] Pain in the diaphragm.

**phrenogastric** (frĕn'ō-gās'trĭk) [" + *gaster*, belly] Concerning the diaphragm and stomach.

**phrenohepatic** (frĕn'ō-hĕ-păt'ĭk) [" + *hepar*, liver] Concerning the diaphragm and liver.

**phrenopericarditis** (frĕ'nō-pĕr'ĭ-kār-dĭ'tis) [Gr. *phren*, diaphragm, + *peri*, around, + *kardia*, heart, + *itis*, inflammation] Attachment of the heart by adhesions to the diaphragm.

**phrenoplegia** (frĕn'ō-plĕ'jĕ-ă) [Gr. *phren*, mind, diaphragm + *pege*, stroke] **1.** A sudden attack of mental illness. **2.** Paralysis of the diaphragm.

**phrenoptosis** (frĕn'ōp-tō'sĭs) [Gr. *phren*, diaphragm, + *ptosis*, a dropping] Downward displacement of the diaphragm.

**phrenospasm** (frĕn'ō-spăzm) [" + *spasmos*, a convulsion] Spasm of the diaphragm.

**phrenosplenic** (frĕn'ō-splĕn'ĭk) [" + *splen*, spleen] Concerning the diaphragm and spleen.

**phthalates** (thăl'ătes) Chemical compounds used to improve the flexibility of plastics. In health care, phthalates are used in devices such as intravenous tubing. They are also used in numerous consumer goods, including nail polish, soaps, shampoos, and vinyl, among many others. Some evidence suggests

these compounds may have carcinogenic, endocrine disruptive, or other toxic effects on adults or the developing fetus.

**Pthirus** (thĭr'ūs) [Gr. *phtheir*, louse] A genus of sucking lice belonging to the order Anoplura.

**P. pubis** The crab louse. It infests primarily the pubic region but it may also be found in armpits, beard, eyebrows, and eyelashes. SEE: *pediculosis pubis*.

**phthisis** A wasting illness.

**p. bulbi** The wasting of ocular tissue.

**phyco-** [Gr. *phykos*, seaweed] Combining form meaning *seaweed*.

**phycology** (fĭ-kōl'ō-jĕ) [Gr. *phykos*, seaweed, + *logos*, word, reason] The study of algae.

**phycotoxin** (fĭ'kō-tōk'sĭn) [" + "] Any natural poison produced by algae, e.g., marine phytoplankton. Examples of phycotoxins include okadaic acid, domoic acid, and yessotoxin.

**phylactic** (fĭ-lăk'tĭk) [Gr. *phylaktikos*, preservative] Concerning or producing phylaxis.

**phylaxis** (fĭ-lăk'sĭs) [Gr., protection] The active defense of the body against infection.

**phyletic** (fĭ-lĕt'ĭk) [Gr. *phyletikos*] Phylogenetic.

**phyloquinone** (fĭl'ō-kwĭn'ōn) Phytonadione.

**phylogenesis** (fĭ'lō-jĕn'ĕ-sĭs) [Gr. *phyle*, tribe, + *genesis*, generation, birth] The evolutionary development of a group, race, or species. SEE: *phylogeny*.

**phylogenetic** (fĭ'lō-jĕ-nĕt'ĭk) Concerning the development of a race or phylum. SYN: *phyletic*.

**phylogeny** (fĭ-lōj'ĕ-nĕ) Development and growth of a race or group of animals. SEE: *ontogeny*.

**phylum** (fĭ'lŭm) *pl.* **phyla** [Gr. *phylon*, tribe] In taxonomy, one of the primary divisions of a kingdom, one division higher than a class.

**physaliform, physalliform** (fĭ-săl'ĭ-form) [Gr. *physallis*, bubble, + L. *forma*, shape] Resembling a bleb or bubble.

**physaliphorous** (fĭs'ă-lĭf'ō-rŭs) Pert. to a highly vacuolated cell present in a chordoma.

**physalis** (fĭs'ă-lĭs) [Gr. *physallis*, bubble] A large vacuole present in the cell of certain malignancies such as a chondroma.

**Physaloptera** (fĭs'ă-lōp'tĕr-ă) [" + *pteron*, wing] A genus of nematode worms belonging to the suborder Spiruata.

**P. caucasica** A species that occurs in and damages the upper gastrointestinal tract.

**physiatrics** (fĭz'ĕ-ăt'rĭks) [Gr. *physis*, nature, + *iatrikos*, treatment] The curing of disease by natural methods, esp. physical therapy.

**physiatrist** (fĭz'ĕ-ăt'rĭst) A physician who specializes in physical medicine.



**physic** (fiz'ik) [Gr. *physikos*, natural]

1. An obsolete way to express the art of medicine and healing. 2. An obsolete term for a medicine, esp. a cathartic.

**physical** (fiz'ī-kāl) 1. Of or pert. to nature or material things. 2. Concerning or pert. to the body; bodily.

**p. activity and exercise** A general term for any sort of muscular effort but esp. the kind intended to train, condition, or increase flexibility of the muscular and skeletal systems of the body.

**p. examination** Examination of the body by auscultation, palpation, percussion, inspection, and olfaction.

**p. fitness** The ability to carry out daily tasks with vigor and alertness, without undue fatigue, and with ample energy to enjoy leisure-time pursuits and meet unforeseen emergencies. It is the ability to withstand stress and persevere under difficult circumstances in which an unfit person would quit. Implied in this is more than lack of illness; it is a positive quality that everyone has to some degree. Physical fitness is minimal in the severely ill and maximal in the highly trained athlete. Persons who maintain a high level of fitness may have increased longevity as compared to those who are sedentary. In addition, the quality of life is enhanced in those who are fit.

**physical mobility, impaired** A limitation in independent, purposeful physical movement of the body or of one or more extremities. SEE: *Nursing Diagnoses Appendix*.

**physical therapist** A licensed practitioner of physical therapy who has graduated from an accredited physical therapy education program. SYN: *registered physical therapist*.

**physical therapist assistant** ABBR: PTA. A graduate of an accredited physical therapist assistant education program. The physical therapist assistant is a paraprofessional who assists the physical therapist, providing selected interventions under the direction and supervision of the physical therapist.

**physical therapy** A profession that is responsible for management of the patient's movement system. This includes conducting an examination; alleviating impairments and functional limitation; preventing injury, impairment, functional limitation, and disability; and engaging in consultation, education, and research. Direct interventions include the appropriate use of patient education, therapeutic exercise, and physical agents such as massage, thermal modalities, hydrotherapy, and electricity. SYN: *physiotherapy*.

**physical therapy diagnosis** 1. A clinical classification of a patient's impairments, functional limitations, and disabilities by a physical therapist. 2. The

use of data obtained by physical therapy examination and other relevant information to determine the cause and nature of a patient's impairments, functional limitations, and disabilities.

**physician** (fi-zish'un) [O.Fr. *physicien*]

A person who has successfully completed the prescribed course of studies in medicine in a medical school officially recognized by the country in which it is located, and who has acquired the requisite qualifications for licensure in the practice of medicine.

**attending p.** A physician who is on the staff of a hospital and regularly cares for patients therein.

**family p.** SEE: *primary care p.*

**primary care p.** ABBR: PCP. A physician to whom a family or individual goes initially when ill or for a periodic health check. This physician assumes medical coordination of care with other physicians for the patient with multiple health concerns. A related term, primary care provider, includes both physicians and mid-level practitioners. SYN: *family physician*.

**resident p.** A physician who works full or part time in a hospital to continue training after internship; commonly called a resident.

**physician assistant** ABBR: PA. A specially trained and licensed individual who performs tasks usually done by physicians and works under the direction of a supervising physician. The PA training programs are accredited by the American Medical Association. All states require PAs to pass the certification examination of the National Commission on Certification of Physician Assistants.

**physician orders for life-sustaining therapy** ABBR: POLST. A part of a patient's health record that specifies his or her preferences regarding end-of-life care, specifically directives regarding life support, the use of antibiotics, artificial feeding, and medically administered hydration.

**Physicians' Desk Reference** ABBR: PDR.

An annual compendium of information concerning drugs, primarily prescription and diagnostic products. The information is largely that included by the manufacturer in the labeling or package insert as required by the Food and Drug Administration: indications for use, effects, dosages, administration, warnings, hazards, contraindications, drug interactions, side effects, and precautions.

**physician shortage area** A geographic region with an inadequate supply of physicians, usually one where more than 400 people live for each physician in residence.

**physicist** (fiz'ī-sist) [L. *physics*, natural

sciences] A specialist in the science of physics.

**physico-** [Gr. *physikos*] Combining form meaning *physical, natural*.

**physicochemical** (fiz'ī-kō-kēm'ī-kāl) [" + *chemeia*, chemistry] Concerning the application of the laws of physics to chemical reactions.

**physics** (fiz'iks) [Gr. *physis*, nature] The study of the laws of matter and their interactions with energy. Included are the fields of acoustics, optics, mechanics, electricity, thermodynamics, and ionizing radiation.

**physio-** [Gr. *physis*] Combining form denoting *nature*.

**physiochemical** (fiz'ē-ō-kēm'ī-kāl) [Gr. *physis*, nature, + *chemeia*, chemistry] Concerning clinical chemistry.

**physiognomy** (fiz'ē-ōg'nō-mē) [Gr. *physis*, nature, + *gnomon*, a judge] **1.** The countenance. **2.** Assumed ability to diagnose a disease or illness based on the appearance and expression(s) on the face.

**physiognosis** (fiz'ē-ōg-nō'sīs) [" + *gnosis*, knowledge] Diagnosis determined from one's facial expression and appearance.

**physiological** (fiz'ē-ō-lōj'ī-kāl) [Gr. *physis*, nature, + *logos*, word, reason] Concerning body function.

**physiologically based pharmacokinetic modeling** ABBR: PBPK. A means of assessing the behavior of various chemical compounds in living organisms based upon their apparent absorption, distribution, and elimination from the body, and such in vitro characteristics as their plasma protein binding and cell membrane permeability. PBPK mathematical modeling is used in pharmacology to select promising new agents for therapeutic use, and in toxicology to estimate the potential harm that chemicals may cause when ingested by animals or released into the environment.

**physiologist** (fiz'ē-ōl'ō-jīst) One who studies the functioning of the body.

**physiology** (fiz'ē-ōl'ō-jē) [Gr. *physis*, nature, + *logos*, study] The science of the functions of the living organism and its components and of the chemical and physical processes involved.

**aviation p.** The branch of physiology that deals with conditions encountered by humans in flying, mountain climbing, or space flight. The conditions studied are hypoxia, extreme temperature and radiation, effects of acceleration and deceleration, weightlessness, motion sickness, enforced inactivity, mental stress, acclimatization, and disturbance of biological rhythm.

**cell p.** The functioning of cells.

**comparative p.** The study and comparison of the physiology of different species.

**general p.** The broad scientific basis of physiology.

**pathologic p.** The physiological explanation of pathologic events.

**physiopathologic** (fiz'ē-ō-pāth'ō-lōj'īk) [" + *pathos*, disease, suffering, + *logos*, word, reason] **1.** Concerning physiology and pathology. **2.** Pert. to a pathologic alteration in a normal function.

**physiotherapy** (fiz'ē-ō-thēr'ā-pē) [" + *therapeia*, treatment] Physical therapy.

**decongestive p.** Physical therapy designed to mobilize localized collections of fluid, e.g., in lymphedema.

**physique** (fī-zēk') [Fr.] Body build; the structure and organization of the body.

**physio-** [Gr. *physis*, air] Combining form indicating *air, gas*.

**physometra** (fī'sō-mē'trā) [" + *metra*, uterus] Air or gas in the uterine cavity.

**physopyosalpinx** (fī'sō-pī'ō-sāl'pīnks) [" + *pyon*, pus, + *salpinx*, tube] Pus and gas in a fallopian tube.

**phytanic acid storage disease** (fī-tān'īk) Refsum's disease.

**phytase** (fī'tās) [" + *ase*, enzyme] An enzyme found in grains and present in the kidneys; important in splitting phytin or phytic acid into inositol and phosphoric acid.

**phytin** (fī'tīn) A calcium or magnesium salt of inositol and hexaphosphoric acid, present in cereals. SEE: *inositol*.

**phyto-, phyt-** [Gr. *phyton*] Combining forms indicating *plant, that which grows*.

**phytoagglutinin** (fī'tō-ā-gloo'tī-nīn) [Gr. *phyton*, plant, + L. *agglutinans*, gluing] A lectin that agglutinates red blood cells and leukocytes.

**phytobezoar** (fī'tō-bē'zor) [" + Arabic *bazahr*, protecting against poison] A mass composed of vegetable matter found in the stomach. SYN: *food ball*. SEE: *bezoar*.

**phytochemical** (fī-tō-kēm'ī-kāl) Any of the hundreds of natural chemicals present in plants. Many have nutritional value; others are protective (e.g., antioxidants) or cause cell damage (e.g., free radicals). Important phytochemicals include allyl sulfur, phytosterol, polyphenol, saponin, phenolic acids, protease inhibitors, carotenoids, capsaicin, and lignans.

**phytochemistry** (fī'tō-kēm'īs-trē) [" + *chemeia*, chemistry] The study of plant chemistry.

**phyto dermatitis** (fī'tō-dēr'mā-tī'tīs) [" + "] Allergic skin inflammation caused by contact with plants or their extracts.

**phytoestrogen** (fī'tō-ēs'trō-jēn) Estrogen-like steroid compound found in beans, sprouts, fruits, vegetables, cereals, and some nuts. Phytoestrogens are being examined for their potential role in the management of hormone-sensi-

tive cancers, cardiovascular disease, lipid disorders, and menopause.

**phytogenous** (fī-tōj'ě-nūs) [" + *genan*, to produce] Arising in or caused by plants.

**phytohemagglutinin** (fī"ō-hēm-ă-gloo't'i-nīn) [" + *haima*, blood, + *L. agglutinare*, to glue to] ABBR: PHA. A chemical derived from red kidney beans, used in the laboratory as a mitogen, stimulating T-lymphocyte growth in cultures.

**phytoid** (fī'toyd) [" + *eidōs*, form, shape] Plantlike.

**phytonutrient** (fī"tō-nūt'rē-ěnt) A metabolically active or nourishing substance derived from plants. Examples of phytonutrients are carotene, lutein, and lycopen.

**phytopharmacology** (fī"tō-fār"mă-kōl'ō-jē) [" + *pharmakon*, drug, + *logos*, word, reason] The study of drugs obtained from plants.

**phytophotodermatitis** (fī"tō-fō"tō-dēr"mă-tī'tīs) [" + *photos*, light, + *derma*, skin, + *itis*, inflammation] A dermatitis produced by exposure to certain plants and then sunlight.

**phytoprecipitin** (fī"tō-prē-sīp'i-tīn) A precipitin produced by immunization with a plant protein.

**phytoremediation** (fī"tō-rē-mēd'ē-ā'shūn) The use of trees and plants to remove pollutants from the environment.

**phytosis** (fī-tō'sīs) [" + *osis*, condition] 1. The presence of a plant parasite. 2. A disease caused by a plant parasite.

**phytosterol** (fī"tō-stē'rōl) Any sterol present in vegetable oil or fat.

**phytotherapy** (fī"tō-thēr'ă-pē) The use of plant extracts in the maintenance of health or the treatment of disease.

**pl** The pH of the isoelectric point of a substance in solution.

**pia** (pē'ă) [L.] Tender, soft.

**pia-arachnitis** (pē'ă-ăr"ăk-nī'tīs) Piarachnitis.

**Piaget, Jean** (pē-ă-zhă') Swiss philosopher and psychologist, 1896–1980, whose work provided understanding of how children's thinking differs from adults' and of how children learn. Concerning education, he explained, "The goal of education is not to increase the amount of knowledge but to create the possibilities for a child to invent and discover, to create men who are capable of doing new things."

**pial** (pī'ăl) Concerning the pia mater.

**pia mater** (pē'ă mă'tēr) [L. *pia*, soft, + *mater*, mother] SEE: under *mater*.

**pian** (pē-ăn') [Fr.] A contagious skin disease of the tropics. SYN: *yaws*.

**piarachnitis** (pī'ăr-ăk-nī'tīs) [L. *pia*, tender, + Gr. *arachne*, spider, + *itis*, inflammation] Inflammation of the arachnoid and pia mater. SYN: *leptomeningitis*; *pia-arachnitis*.

**piblokto, pibloktog** (pī-blōk' tō) [Inuit] A syndrome, apparently culturally specific for Eskimo women, in which the person screams, removes or tears off her clothes, and runs naked in the snow. The woman then has no recollection of these events.

**pica** (pī'ă) [L., magpie] An eating disorder manifested by a craving to ingest any material not normally considered as food, including starch, clay, ashes, toy balloons, crayons, cotton, grass, cigarette butts, soap, twigs, wood, paper, metal, or plaster. This condition is seen in pregnancy, chlorosis, hysteria, helminthiasis, and certain psychoses. It may also be associated with iron-deficiency anemia. The importance of this condition, the etiology of which is unknown, stems from the toxicity of ingested material (e.g., paint that contains lead) or from ingesting materials in place of essential nutrients. The inclusion of compulsive ingestion of non-food and food items such as licorice, croutons, chewing gum, coffee grounds, or oyster shells as examples of pica is controversial. SEE: *appetite*; *geophagia*; *taste*.

**PICC** *Peripherally inserted central venous catheter*.

**pick** 1. A sharp, pointed, curved dental instrument used to explore tooth surfaces and restorations for defects. 2. To remove bits of food from teeth.

**Pick, Arnold** (pĭk) Czechoslovakian physician, 1851–1924.

**P.'s disease** Dementia associated with atrophy of the frontal and/or temporal lobes of the brain. The disease has three variants: one in which affected patients develop a progressively worsening fluent aphasia; one in which aphasia is not fluent; and one in which loss of social skills and intellectual functions, apathy, and disorientation are most prominent. SYN: *frontotemporal dementia*. SEE: *Alzheimer's disease*.

**Pick, Friedel** (pĭk) Czechoslovakian physician, 1867–1926.

**P.'s disease** Chronic constrictive pericarditis.

**Pick, Ludwig** (pĭk) German physician, 1868–1944.

**P.'s cell** A foamy, lipid-filled cell present in the spleen and bone marrow in Niemann-Pick disease. SYN: *Niemann-Pick cell*.

**P.'s disease** Niemann-Pick disease.

**pickling** 1. A method of preserving and flavoring food in which the food is soaked in a solution of salt and vinegar. 2. The use of a chemical solution to remove scales and oxides from metals after casting or before plating them.

**pickwickian syndrome** (pĭk-wĭk'ē-ăn) [Inspired by Joe, an obese character in *Pickwick Papers* by Charles Dickens.]

Obesity, decreased pulmonary function, and polycythemia.

**pico-** Combining form used to indicate a unit of measurement that is one trillionth of the basic unit.

**picocurie** (pī'kō-kū-rē) ABBR: pCi. An amount of radiation equal to  $10^{-12}$  curies. SEE: *becquerel*.

**picogram** (pī'kō-grām) ABBR: pg.  $1 \times 10^{-12}$  g or 1 trillionth of a gram.

**picornavirus** (pī-kor'nā-vī'rūs) [r' + RNA, ribonucleic acid, + L. *virus*, virus] Any of a group of very small ether-resistant viruses that includes enteroviruses and rhinoviruses.

**picrate** (pik'rāt) A salt of picric acid.

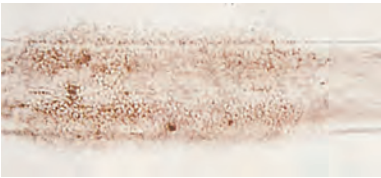
**picro-, picr-** [Gr. *pikros*, bitter] Combining forms meaning *bitter*.

**pictograph** (pik'tō-grāf) A set of test pictures used for testing vision in children and illiterate adults.

**picture archiving and communication system** ABBR: PACS. Computers or networks dedicated to the storage, retrieval, distribution, and presentation of images.

**PID** (pid) *pelvic inflammatory disease*.

**piedra** (pē-ā'drā) [Sp., stone] Sheath-like nodular masses in the hair of the beard and mustache from growth of either *Piedraia hortai*, which causes black piedra, or *Trichosporon beigelii*, which causes white piedra. The masses surround the hairs, which become brittle; hairs may be penetrated by fungus and thus split. SYN: *tinea nodosa*. SEE: *illus.*



WHITE PIEDRA ON HAIR (×200)

**pierce** To penetrate body tissue, usually in order to place an ornamental ring or stud on the surface of the skin.

**Pierre Robin syndrome** (pē-ār'rō-bān') [Pierre Robin, French physician, 1867–1950] A congenital facial anomaly characterized by an unusually small jaw, cleft palate, downward displacement of the tongue, and absent gag reflex. Affected children may suffer episodes of upper airway obstruction.

**piesesthesia** (pī-ē'zēs-thē'zē-ā) [Gr. *pieis*, pressure, + *aisthesis*, sensation] Sensitivity to pressure.

**piesimeter, piesometer** (pī'ē-sīm'ē-tēr, -sōm'ē-tēr) [r' + *metron*, measure] A device for measurement of the skin's sensitivity to pressure.

**-piesis** Combining form used as a suffix meaning *pressure*.

**PIE syndrome** Eosinophilic pneumonia.

**piezoelectric effect** (pē-ā'zō-ē-lēk'trīk) In ultrasound, a change of the mechanical action of ceramic crystals into an electrical impulse and vice versa. SEE: *triboluminescence*.

**piezoelectricity** (pē-ā'zō-ē-lēk'trīs'ī-tē) [r' + *elektron*, amber] Production of an electric current by application of pressure to certain crystals such as mica, quartz, or Rochelle salt. SEE: *triboluminescence*.

**PIF** (pif) *proliferation inhibiting factor*.

**pigeon breeder's disease** (pī'jūn) Bird breeder's lung.

**pigeon-toed** With feet turned inward.

**pigment** (pig'mēnt) [L. *pigmentum*, paint] Any organic coloring matter in the body. SEE: *albino*; *carotene*; *carotenoid*; words beginning with *chrom-*.

**bile p.** The waste product of the hemoglobin of old red blood cells, found in the bile. Included are bilirubin (orange), biliverdin (green), their derivatives (urobilinogen, urobilin, bilicyanin, and bilifuscin), and stercobilin, which gives brown color to the feces. SYN: *hepatogenous pigment*.

**blood p.** A pigment in blood (hemoglobin) or a derivative of it (hematin, hemin, methemoglobin, hemosiderin).

**endogenous p.** A pigment produced within the human body, as melanin.

**exogenous p.** A pigment produced outside the human body.

**hematogenous p.** A pigment from hemoglobin of the erythrocytes.

**hepatogenous p.** Bile p.

**respiratory p.** Any pigment such as hemoglobin, myoglobin, or cytochrome that has a part in the metabolism of oxygen within the body.

**skin p.** Melanin, melanoid, and carotene.

**urinary p.** Urochrome and sometimes urobilin.

**uveal p.** Melanin in the choroid layer of the eye, the ciliary processes, and the posterior surface of the iris. Uveal pigment absorbs light within the eyeball to prevent glare.

**visual p.** A light-absorbing compound in the photoreceptor cells of the retina that converts light energy into a nerve impulse that is passed from the receptor cells to the optic nerve.

**pigmentary** (pig'mēn-tēr'ē) [L. *pigmentum*, paint] Concerning, or like, a pigment.

**pigmentation** (pig'mēn-tā'shūn) Coloration caused by deposition of pigments. SEE: *albinism*; *carotenemia*; words beginning with *chrom-*.

**hematogenous p.** Pigmentation produced by the collection of hemoglobin, or pigment carried to a site through the blood.

**pigmented** (pig'mēnt-ēd) Colored by a pigment.

**pigmentolysin** (pig'mén-tól'i-sín) [ " + Gr. *lysis*, dissolution] A substance that destroys a pigment.

**pigmentophore** (pig'mén'tō-for) [ " + Gr. *phorein*, to carry] A cell that carries pigment.

**pigmentum nigrum** (pig'mén'túm ní'grúm) [L., black paint] The black pigment of the lamina vitrea of the choroid of the eye.

**piitis** (pī-ī'tīs) [L. *pia*, tender, + Gr. *itis*, inflammation] Inflammation of the pia mater.

**pil** L. *pilula*, pill, or *pilulae*, pills.

**pil-, pilo-** Combining forms meaning *hair*.

**pila** (pī'lā) *pl. pilae* [L., pillar] A pillar-like spicule in spongy bone.

**pilar, pilary** (pī'lār, pī'l'ā-rē) [L. *pilaris*] Concerning, or covered with, hair.

**pile** [L. *pila*, a ball, a pillar] **1.** A single hemorrhoid. SEE: *hemorrhoid*. **2.** The hair. **3.** A battery for production of electricity. **4.** An apparatus for producing and regulating a nuclear chain-reaction fission process.

**sentinel p.** A localized thickening of the skin at the distal end of an anal fissure.

**pilous** (pī'lē-ūs) [L. *pilus*, hair] Hirsute.

**piles** (pīls) [L. *pila*, a mass] Hemorrhoids. SEE: *hemorrhoid*.

**pileus** (pī'lē-ūs) [L., a cap] Caul.

**pili** (pī'lē) *sing.*, **pilus** Hairs; in bacteria, filamentous appendages of which there may be hundreds on a single cell. One function of pili is to attach the bacterium to cells of the host; another is to conjugate bacteria with each other.

**p. incarnati** The condition of ingrowing hair, esp. in the beard area.

**p. tactiles** Sensitive or tactile hairs.

**p. torti** A condition in which hairs are broken and twisted.

**p. trianguli et canaliculi** A condition in which the hair shaft is triangular in cross-section and often has a groove; seen in children with uncombable hair syndrome. SEE: *uncombable hair syndrome*.

**piliation** (pī-lē-ā'shŭn) [L. *pilus*, hair] The formation and development of hair.

**piliform** (pī'lī-form) [ " + *forma*, shape] Hairlike.

**pill** (pīl) [L. *pilula*, small mass] **1.** Medicine in the form of a tiny solid mass or pellet to be swallowed or chewed; may be coated. **2.** Birth control pill.

**birth control p.** A class of medicines taken orally to control conception. They contain synthetic forms of estrogen and progesterone or synthetic progesterone alone. SEE: *contraceptive*.

**morning-after p.** A pill containing estrogen, progesterone, or both that must be taken within 72 hr after intercourse to prevent pregnancy.

**pillar** (pīl'ēr) [L. *pila*, a column] An up-

right support, column, or structure resembling a column.

**p. cell** One of two groups of cells (inner and outer) resting on the basement membrane of the organ of Corti in which elongated bodies (pillars) develop. These enclose the inner tunnel (Corti's tunnel).

**p. of the fauces** Folds of mucous membrane, one on each side of the fauces and between which is situated the palatine tonsil. The anterior pillar (in front of the tonsil) is also called the glosso-palatine arch; the posterior pillar (behind the tonsil) is also called the pharyngopalatine arch.

**pillion** (pīl'yŭn) [L. *pellis*, skin] A temporary form of artificial leg, esp. a peg-leg type of stump.

**pillow** A postsurgical cushion or support for a body part (e.g., the head, chest, hip, or knee). Therapeutic pillows are used as buttresses or wedges to relieve stress on parts of the body that have been operated on. Chest pillows are used after sternotomy to support the chest wall and limit pain from deep breathing or coughing. Pillows placed under or between the lower extremities are often used to maintain neutral or desired alignment of joints after joint replacement surgeries.

**abductor p.** A pillow or cushioned wedge placed between the legs of a patient after total hip replacement to maintain proper positioning and prevent dislocation/abduction of the joint.

**pilo-** [L. *pilus*] Combining form indicating *hair*.

**pilobezoar** (pī'lō-bē'zor) [ " + Arabic *bazahr*, protecting against poison] Trichobezoar.

**pilocarpine iontophoresis** A test used to diagnose cystic fibrosis in which sweat glands on the skin are stimulated by an electrode after the skin has been wetted with pilocarpine. Elevated levels of chloride in the sweat establish the diagnosis. SYN: *sweat test*.

**pilocystic** (pī'lō-sīs'tīk) [L. *pilus*, hair, + Gr. *kystis*, bladder] Encysted and containing hair, said of a dermoid cyst.

**piloerection** (pī-lō-ē-rēk'shŭn) Elevation of the hair above the skin as a result of contraction of the arrector pili muscles. This may occur after exposure to the cold or during adrenergic stimulation. SYN: *cutis anserina*; *goose flesh*; *horripilation*.

**pilojection** (pī-lō-jēk'shŭn) [ " + *jacere*, to throw] Introduction of hairs, by use of a pneumatic gun, into an aneurysm to induce clotting in the aneurysmal sac. It has been used in treating intracranial aneurysms.

**pilomotor** (pī'lō-mō'tor) [ " + *motor*, mover] Causing movements of hairs, as the arrectores pilorum.

**pilonidal** (pī'lō-nī'däl) [ " + *nidus*, nest]



Containing hairs; most often seen in a dermoid cyst, esp. in the sacrococcygeal region.

**pilosebaceous** (pī'lō-sē-bā'shūs) [" + *sebaceous*, fatty] Concerning the hair and sebaceous glands.

**pilus** (pī'lūs) *pl.* **pili** [L.] A hair.

**p. cuniculatus** A hair that burrows into the skin.

**p. incarnatus** An ingrown hair.

**p. tortus** A twisted hair.

**PI**<sub>max</sub> *maximum inspiratory pressure*. SEE: *force, maximum inspiratory*.

**pimel-, pimelo** [Gr. *pimele*, fat] Combining form meaning *fat* or *fatty*.

**pimelopterygium** (pīm'ē-lō-tē-rj'ē-ūm) [" + *pterygion*, wing] A fatty outgrowth of the conjunctiva.

**pimelosis** (pīm'ē-lō'sīs) [" + *osis*, condition] 1. Conversion into fat. 2. Fatty degeneration of any tissue. 3. Obesity.

**pimple** (pīm'pl) [ME. *pinple*] A papule or pustule of the skin often seen in clusters on skin of the adolescent with acne.

**pin** A short, slim piece of wire, plastic, or metal. It may have one end blunt and the other sharp.

**endodontic p.** A straight or threaded filling that is passed through the root canal to the alveolar bone beyond the apex of the tooth root.

**self-threading p.** A pin screwed through a small hole into dentin.

**sprue p.** In dentistry, a wax, plastic, or metal pattern used to make the channel or channels through which molten metal flows into a mold to make a casting. Also called *sprue former*.

**pincrement** (pāns-mōn') [Fr.] Pinching or nipping of the flesh in massage.

**pinch** A type of hand prehension. The pinch of the human hand is achieved principally through holding objects between the thumb and index finger or the index and long fingers.

Hand pinch is classified according to the anatomical parts involved, as follows:

*Pinch, fingertip*—pinch using the tips of strongly arched digits, primarily the thumb and index finger; used to pick up very small objects such as pins and needles.

*Pinch, palmar tripod* or *three-jaw chuck*—pinch using the palmar pads of the thumb and index and long fingers.

*Pinch, lateral*—pinch accomplished by clamping the palmar surface of the distal portion of the thumb against the side of the index finger.

**pinched nerve** A colloquial term for *nerve entrapment syndrome*.

**pinch meter** A device for objectively measuring the strength of hand pinch in grams or pounds.

**Pindborg tumor** (pīnd'bawrg') [20th century physician; first described in the 1950s] A rare tumor, typically of the jaw, consisting of malignant epithelial

cells with a polyhedral shape and deposits of cementum. It is often associated with an impacted tooth. SYN: *calcifying epithelial odontogenic tumor*.

**pineal** (pīn'ē-āl) [Fr., pine cone]

1. Shaped like a pine cone. 2. Pert. to the pineal gland.

**pineal body** SEE: *pineal gland*.

**pinelectomy** (pīn'ē-āl-ēk'tō-mē) [L. *pinus*, of the pine, + Gr. *ektome*, excision] Removal of the pineal gland.

**pinealoblastoma** (pīn'ē-āl-lō-blās-tō'mā) [" + Gr. *blastos*, germ, + *oma*, tumor] Pineoblastoma.

**pinealocyte** (pīn'ē-āl-lō-sīt') [" + Gr. *kytos*, cell] The principal cell of the pineal gland. It contains pale-staining cytoplasm and has long processes that terminate in bulbous expansions.

**pinealoma** (pīn'ē-āl-lō'mā) [" + Gr. *oma*, tumor] A tumor of the pineal gland, usually encapsulated; often associated with precocious puberty.

**pinealopathy** (pīn'ē-āl-lōp'ā-thē) [" + Gr. *pathos*, disease, suffering] Any disorder of the pineal gland.

**Pinel, Philippe** (pē-nēl') French psychologist, 1745–1826, who developed a method or system of treating the mentally ill without the use of restraint, at a time when use of restraint was the accepted form of therapy.

**pineoblastoma** (pīn'ē-ō-blās-tō'mā) [L. *pinus*, of the pine, + Gr. *blastos*, germ, + *oma*, tumor] A malignant tumor of the pineal gland that may occur in childhood and early adulthood. SYN: *pinealoblastoma*.

**pineocytoma** (pīn-ē-ō-sī-tō'mā) A malignant tumor of the pineal gland of the brain.

**ping-pong** (pīng-pōng-ēng) [Ping Pong, trademark for table tennis] The transmission of an infectious disease, esp. a sexually transmitted one, between two people. After the first person has been cured, the second person reinfects the first.

**pinguecula** (pīn-gwēk'ū-lā) [L. *pinguis*, fatty] A yellow triangular thickening of the bulbar conjunctiva on the inner and outer margins of the cornea. The base of the triangle is toward the limbus. The yellow color is due to an increase in elastic fibers.

**pinhole** (pīn'hōl) [AS. *pinn*, pin, + *hol*, hole] A small perforation made by, or the size of that made by, a pin.

**p. os** A very small opening to the uterus from the vagina. It may be present in very young women.

**pinhole meatus** Stricture of the urethra.

**piniform** (pīn'ī-form) [L. *pinus*, pine cone, + *forma*, shape] Conical; shaped like a pine cone.

**pink disease** Acrodynia.

**pinkeye** [D. *pinck oog*] Inflammation of the conjunctiva, usually characterized by redness, watery discharge, lid edema,

itching, and a gritty sensation. Most commonly caused by a contagious viral infection. Depending on the cause, pinkeye may be treated conservatively (e.g., with warm, moist compresses) or with antibiotics when bacteria are the cause.

**pinna** (pīn'ā) *pl.* **pinnae** [L., feather]

**1.** The auricle or projected part of the external ear. It directs sound waves into the external acoustic meatus toward the tympanic membrane. **2.** A feather, fin, wing, or similar appendage.

**pinocyte** (pī'nō-sīt) [Gr. *pinein*, to drink, + *kytos*, cell] A cell that exhibits pinocytosis.

**pinocytosis** (pī'nō-sī-tō'sīs) [" + " + *osis*, condition] The process by which cells absorb or ingest nutrients and fluid. An invaginating portion of the cell membrane encircles the nutrient, enclosing it in a membrane-bound sac. The sac is brought into the cell and its contents are digested. **SEE: illus.**

**pinosome** (pī'nō-, pīn'ō-sōm) [" + *soma*, body] The fluid-filled vacuole formed during pinocytosis.

**pinprick test** A test for cutaneous pain receptors. A small, clean, sharp object such as a pin or needle is gently applied to the skin and the patient is asked to describe the sensation. One must be certain the patient is reporting the sensation of pain rather than that of pressure. Usually, application of the sharp object is interspersed with application of a dull object, and the patient is asked to state each time whether a sharp or dull sen-

sation was felt. The patient is not, of course, allowed to observe the test procedure.



The sharp object should not penetrate the dermis, and to prevent passage of infectious material from one patient to another, the test objects should be either discarded after use or sterilized before their use on another patient.

**PINS** (pīnz) *persons in need of supervision.*

**Pins' sign** (pīnz) [Emil Pins, Aust. physician, 1845–1913] In pericarditis, disappearance of symptoms of pleurisy when the patient assumes knee-chest position.

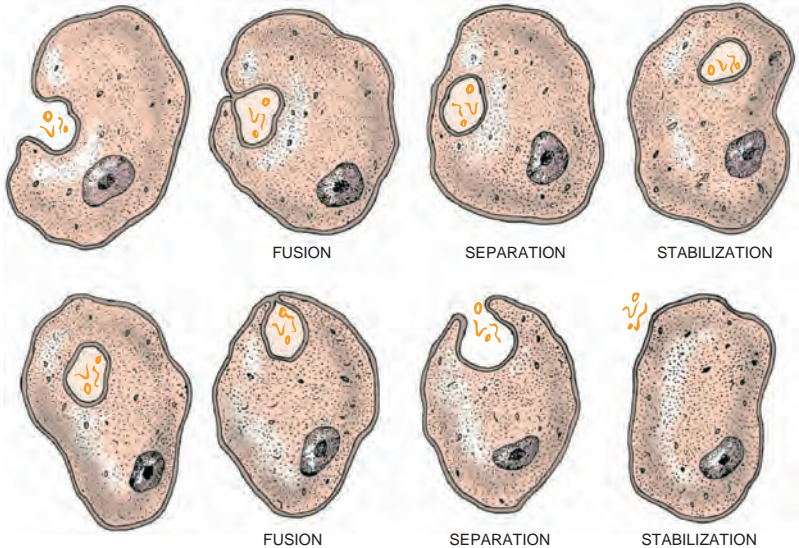
**pint** (pīnt) [ME. *pinte*] ABBR: pt. In the U.S. a measure of capacity equal to ½ qt.; 16 fl. oz; 473.2 ml. **SEE: Weights and Measures Appendix.**

**pinta** (pēn'tā) [Sp., paint] A nonvenereal disease spread by body contact, caused by the spirochete *Treponema carateum*. It is manifested by depigmented spots or patches. The treatment is administration of penicillin.

**pinetid** (pīn'tid) A flat red skin lesion present in the second stage of pinta.

**pinworm** (pīn'wūrm) Any of numerous long, slender nematode worms, esp. of the genus *Enterobius*. They parasitize humans. **SEE: Enterobius vermicularis.**

**pioepithelium** (pī'ō-ēp'ī-thē'lē-ūm) [Gr. *pion*, fat, + *epi*, upon, + *thele*, nip-



### PINOCYTOSIS AND EXOCYTOSIS

(Top) Pinocytosis; (Bottom) Exocytosis

ple] Epithelium that contains fat globules.

**pioglitazone** (pī' ō-glīt' ŭ-zōn") A thiazolidinedione administered orally as an adjunct to diet and exercise for the management of type 2 diabetes mellitus. Its therapeutic class is antidiabetic (oral).

**pion therapy** (pī'ŏn) The use of subatomic particles, called pions, to treat brain cancers and some sarcomas.

**PIP** *peak inspiratory pressure; proximal interphalangeal (joint)*

**Piper** (pī'pēr) [L.] Genus of plants that produce pepper.

**Piper forceps** (pīp'ēr) Forceps designed to deliver the infant's head during a breech delivery, after other maneuvers to deliver the head have failed.

**pipet, pipette** (pī-pēt') [Fr. *pipette*, tiny pipe] Narrow glass tube with both ends open for transferring and measuring liquids by suctioning them into the tube.

**piriform, pyriform** (pīr'ī-form) [L. *pirum*, pear, + *forma*, shape] Pear-shaped.

**piriformis syndrome** (pīr-ē-for'mīs) A condition marked by pain in the hip and buttock that radiates up into the lower back and down the leg. In women, the pain may occur during sexual intercourse. This is caused by entrapment of the sciatic nerve as it passes through the piriformis muscle in the buttock. Because the symptoms mimic those caused by a herniated lumbar disk, the syndrome may be confused with that disease. Treatment includes physical therapy to relieve pressure, ultrasound to reduce muscle spasm, and anti-inflammatory medicines. Surgical therapy to free the entrapped nerve may be necessary. SEE: *sciatica*.

**Pirogoff's amputation** (pīr'ō-gōfs') [Nikolai Ivanovich Pirogoff, Russ. surgeon, 1810–1881] Foot amputation at the ankle, removing a portion of the os calcis.

**piroplasm** (pī'rō-plāzm) A sporozoan protozoan of the subclass Piroplasia, such as the genus *Babesia*.

**Pirquet's test** (pēr-kāz') [Clemens Peter Johann von Pirquet, Austrian pediatrician, 1874–1929] A test for tuberculosis by means of a skin reaction, used esp. in children.

**pisiform** (pī'sī-form) [L. *pisum*, pea, + *forma*, shape] **1.** Pea-shaped. **2.** The smallest carpal bone, located in the flexor carpi ulnaris tendon as a sesamoid bone, on the ulnar side in the proximal row of carpals.

**pit** (pit) [ME. *pitt*, hole] **1.** A tiny hollow or pocket. SYN: *depression; fossa*. **2.** To be or become marked with a shallow depression; to cause a depression on pressure in edema. **3.** A small depression in the enamel surface of a tooth often connected with one or more developmental

grooves. It contributes to pit and fissure caries. SYN: *occlusal p.*

**anal p.** Proctodeum.

**gastric p.** One of many minute depressions (foveolae) in the gastric mucosa into which the gastric glands open.

**nasal p.** In the embryo, one of two horseshoe-shaped depressions on the ventrolateral surface of the head bounded by lateral and median nasal processes. It gives rise to nostrils and a portion of the nasal fossa. SYN: *olfactory pit*.

**occlusal p.** Pit (3).

**olfactory p.** Nasal p.

**primitive p.** A minute depression at the anterior end of the primitive groove or streak and immediately posterior to the primitive knot.

**p. of the stomach** **1.** Colloquial term for the depression at the end of the xiphoid process. **2.** Colloquial term for the center of the abdominal region above the navel.

**pitch** (pich) [ME. *picchen*, to fix] **1.** That quality of the sensation of sound that enables one to classify it in a scale from high to low. It is dependent principally on frequency of vibrations. **2.** Residue obtained from distillation of coal or wood tar. **3.** In radiography, the table speed divided by the width of the x-ray beam.

**pitchblende** (pich'blēnd) Uraninite, the principal source of uranium. It is a mineral that resembles pitch.

**pitch** (pith) **1.** The center of a hair or the soft material in the stalk of a plant. **2.** Destruction of a part of the central nervous system of an animal being prepared for certain experiments. A blunt probe is inserted in the brain or spinal cord through a foramen.

**pithing** (pith'ing) [ME. *pithe*] Destruction of the central nervous system by the piercing of brain or spinal cord, as in vivisection. This is done on experimental animals to render them insensible to pain and to inhibit controlling effects of the central nervous system during research and experimentation. SEE: *decerebration*.

**pithode** (pīthōd) [Gr. *pithose*, wine cask, + *eidōs*, form, shape] The barrel-shaped spindle formed during karyokinesis.

**Pitres' section** (pē-trēs') [Jean A. Pitres, Fr. physician, 1848–1927] Any of the series of six coronal vertical sections of the brain for study. The sections are prefrontal, pediculofrontal, frontal, parietal, pediculoparietal, and occipital.

**pitting** (pit'ing) [ME. *pitt*, hole] **1.** The formation of pits, depressions, or scars, as in smallpox. **2.** In the spleen, removal of the remains of red blood cells that have completed their lifespan or have been injured. Nucleated red blood cells are also removed from circulating blood

in this pitting function. SEE: *culling*.  
**3.** In dentistry, the formation of depressions in the materials used in restoring teeth. **4.** In radiography, the imperfections created on the face of the x-ray tube anode by overloading current limits.

**pituicyte** (pī-tū'ī-sīt) [L. *pituita*, phlegm, + Gr. *kytos*, cell] A modified branched neuroglia cell characteristic of pars nervosa of the posterior lobe of the pituitary gland; also present in the infundibular stalk.

**pituitary** (pī-tū'ī-tār'ē) [L. *pituitarius*, phlegm] The pituitary body or gland. SYN: *hypophysis*. SEE: *releasing hormone*; *inhibitory hormone*; *pituitary gland*.

**anterior p.** A preparation consisting of dried, defatted, powdered anterior lobe of the pituitary gland of domestic animals.

**posterior p.** The dried, powdered posterior lobe of the pituitary gland of animals used as food by humans.

**pituitary (injection), posterior** Antidiuretic hormone.

**pituitary body** Obsolete term for the pituitary gland.

**pituitary gland** A small, gray, rounded gland that develops from ingrown oral epithelium (Rathke's pouch) and is attached to the lower surface of the hypothalamus by the infundibular stalk. The Rathke's pouch portion forms the anterior lobe and an intermediate area; the neural tissue of the infundibular stalk forms the posterior lobe. The pituitary gland averages  $1.3 \times 1.0 \times 0.5$  cm in size and weighs 0.55 to 0.6 g. SYN: *hypophysis cerebri*. SEE: *illus. (Pituitary Gland and Hypothalamus)*.

**FUNCTION:** The pituitary is an endocrine gland secreting a number of hormones that regulate many bodily processes including growth, reproduction, and other metabolic activities. It is often referred to as the "master gland of the body." SEE: *illus. (Pituitary Hormones and Target Organs)*.

Hormones are secreted in the following lobes: *Intermediate lobe:* In cold-blooded animals, intermedin is secreted, influencing the activity of pigment cells (chromatophores) of fishes, amphibians, and reptiles. In warm-blooded animals, no effects are known.

*Anterior lobe:* Secretions here are the somatotrophic, or growth hormone (STH or GH), which regulates cell division and protein synthesis for growth; adrenocorticotrophic hormone (ACTH), which regulates functional activity of the adrenal cortex; thyrotrophic hormone (TTH or TSH), which regulates functional activity of the thyroid gland; and prolactin, also called lactogenic hormone, which induces secretion of milk in the

adult female. The gonadotropic hormones are as follows: in women, follicle-stimulating hormone (FSH) stimulates development of ovarian follicles and their secretion of estrogen; in men, it stimulates spermatogenesis in the testes. In women, luteinizing hormone (LH) stimulates ovulation and formation of the corpus luteum and its secretion of estrogen and progesterone. In men LH, also called interstitial cell-stimulation hormone (ICSH), stimulates testosterone secretion.

*Posterior lobe:* Hormones are secreted by the neurosecretory cells of the hypothalamus and pass through fibers of the supraopticohypophyseal tracts in the infundibular stalk to the neurohypophysis, where they are stored. Secretions here are oxytocin, which acts specifically on smooth muscle of the uterus, increasing tone and contractility, and antidiuretic hormone (ADH), which increases reabsorption of water by the kidney tubules. In large amounts ADH also causes vasoconstriction, and is also called vasopressin.

**DISORDERS:** *Hypersecretion of anterior lobe* causes gigantism, acromegaly, and pituitary basophilism (Cushing's disease). *Hyposecretion of anterior lobe* causes dwarfism, pituitary cachexia (Simmonds' disease), Sheehan's syndrome, acromicria, eunuchoidism, or hypogonadism. *Posterior lobe deficiency or hypothalamic lesion* causes diabetes insipidus. *Anterior and posterior lobe deficiency and hypothalamic lesion* cause Fröhlich's syndrome (adiposogenital dystrophy) and pituitary obesity.

**pityriasis** (pit'ī-rī'ā-sis) [Gr. *pityron*, bran, + *-iasis*, disease] A skin disease characterized by branny scales.

**p. alba** A form of decreased melanin in the skin marked by patches of round or oval macular skin lesions with fine adherent scales. The lesions are commonly seen in the facial areas of children. They are virtually painless and usually require no therapy. They may disappear spontaneously. The etiology is unknown, but the disease is regarded as a mild form of eczema.

**p. capitis** Dandruff.

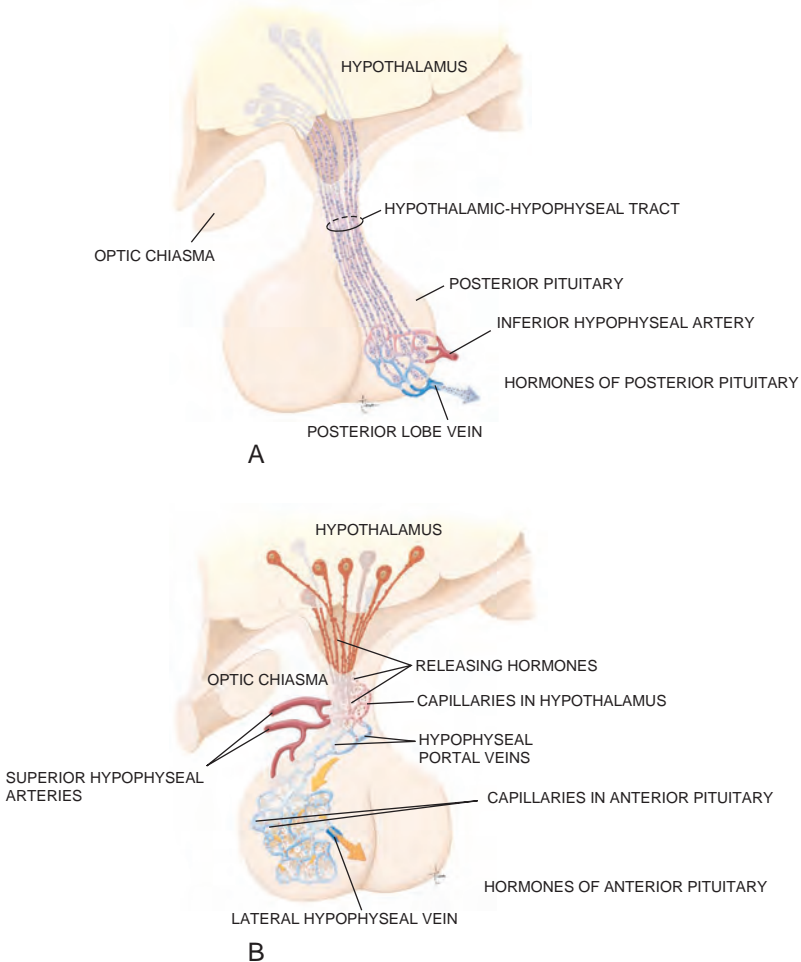
**p. lichenoides et varioliformis, acuta** ABBR: PLEVA. A skin disorder characterized by development of an edematous pink papule that undergoes central vesiculation and hemorrhagic necrosis. The lesions clear spontaneously after weeks or months but leave scars.

**p. linguae** Transitory benign plaques of the tongue. SYN: *geographic tongue*.

**p. nigra** Tinea nigra.

**p. rosea** An acute inflammatory skin disease of unknown etiology, marked by a macular eruption on the trunk, obliquely to the ribs, and on the upper





### PITUITARY GLAND AND HYPOTHALAMUS

(A) posterior, (B) anterior

extremities. The initial (herald) patch appears in more than half of the cases. In a few days it enlarges to several centimeters. Then, within 2 to 21 days, secondary eruptions occur. They are rose-red and somewhat scaly with a clearing in the center, or reddish ring-shaped patches symmetrically distributed over the limbs. The symptoms disappear spontaneously within 2 to 10 weeks. Treatment consists of the local application of antipruritics.

***p. rubra pilaris*** Persistent general exfoliative dermatitis of unknown etiology. SEE: *exfoliative dermatitis*.

***p. versicolor*** Tinea versicolor.

**Pityrosporum** (pī'ti-rō-spawr'ūm, -rōs'pū-rūm) SEE: *Malassezia*.

**pivot** (pīv'ūt) In dentistry, a part used for attaching an artificial crown to the base of a natural tooth.

**pixel** pīk'sīl, -sēlA picture element, i.e., an individually adjustable picture element in a digital image. Variations in its size and brightness contribute to the resolution and contrast of the image.

**PJC** *premature junctional contraction*.

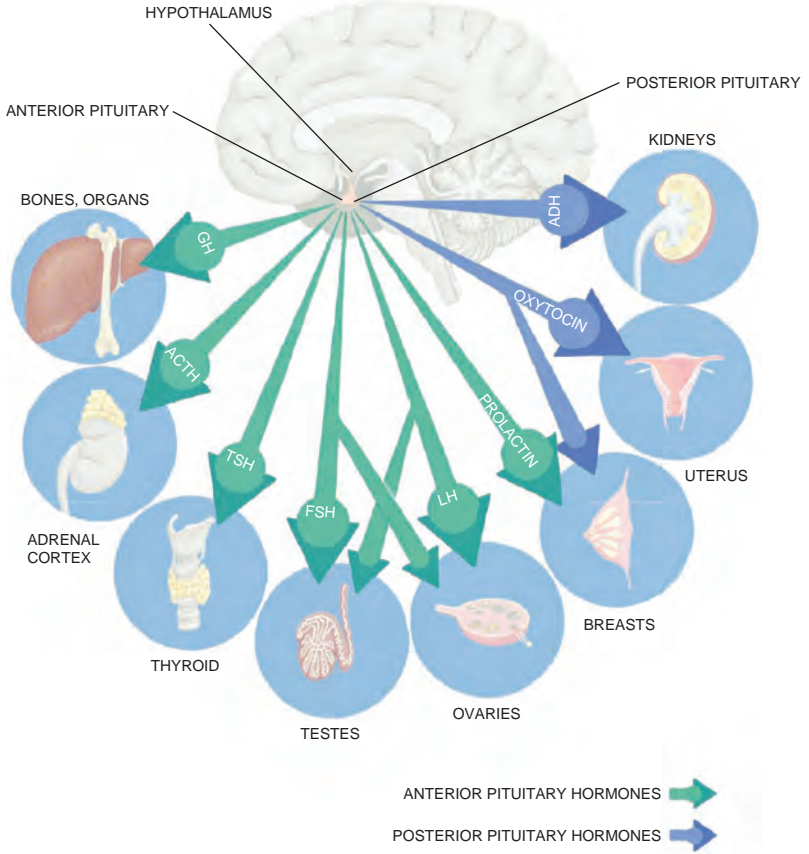
**PK** *psychokinesis*.

**pK** Abbreviation for the negative logarithm of the ionization constant, called K, of an acid. The closer the pK to the pH, the greater the buffering power of the system.

**PKU** *phenylketonuria*.

**placebo** (plā-sē'bō) [L. *placebo*, I shall please] 1. An inactive substance or





**PITUITARY GLAND**

Pituitary hormones and target organs

treatment given instead of one that has a proven effect. **2.** A drug or treatment used as a nonspecific or inactive control in a test of a therapy that is suspected of being useful for a particular disease or condition. The placebo is given to one group of patients, and the drug being tested is given to a similar group; then the results obtained in the two groups are compared. Placebos often elicit a response, possibly because of patient expectations that they will produce a cure or prove harmful.

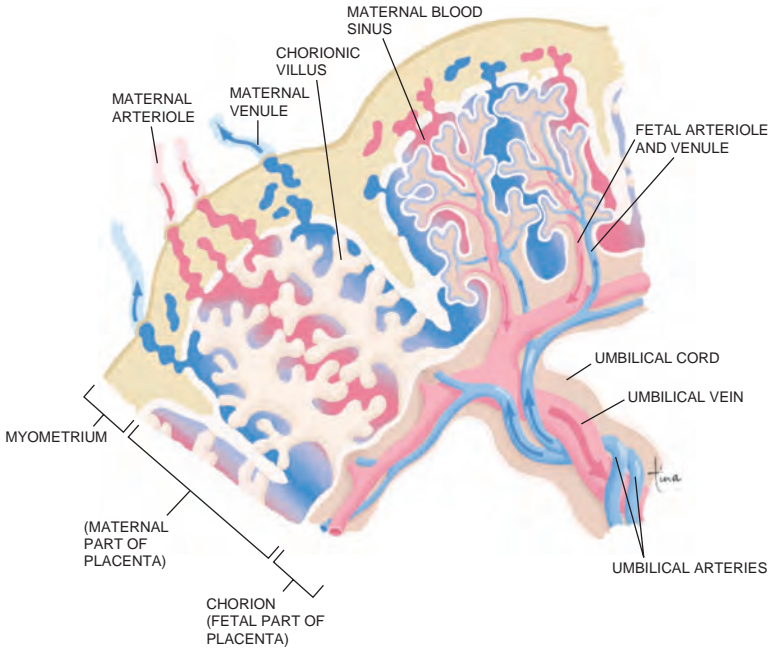
**ETHICS:** Placebos are not legitimate treatments and should be prescribed and administered only under tightly controlled conditions as part of a clinical trial approved by an institutional review board (IRB). Placebos should not be used without the informed consent of the patient, i.e., an explicit understanding that a patient in a trial may receive an inactive agent. When clinical use of a placebo involves deceiving the patient,

such use is unethical. Deception of a patient constitutes a failure to respect his rights to make informed decisions and undermines the element of trust that is crucial to every interaction between patient and caregiver.

**placement** (plās'mīnt) **1.** The positioning or implantation of an object, such as a catheter or stent, within or near a body part. **2.** The assignment of a patient to a particular care facility, treatment program, or level of care. **3.** The assignment of a student in a health profession to a specialized learning environment, such as a clinic, hospital, or ward, where he or she performs professional activities under supervision.

**placenta** (plā-sēn'tā) *pl. placentae pl. placentas* [L., a flat cake] The oval or discoid spongy structure in the uterus of eutherian mammals from which the fetus derives its nourishment and oxygen. **SEE: illus. placental, adj.**

**ANATOMY:** The placenta consists of a



## PLACENTA

Maternal and fetal portions

fetal portion, the chorion frondosum, bearing many chorionic villi that interlock with the decidua basalis of the uterus, which constitutes the maternal portion. The chorionic villi lie in spaces in the uterine endometrium, where they are bathed in maternal blood and lymph. Groups of villi are separated by placental septa forming about 20 distinct lobules called cotyledons.

Attached to the margin of the placenta is a membrane that encloses the embryo. It is a composite of several structures (decidua parietalis, decidua capsularis, chorion laeve, and amnion). At the center of the concave side is attached the umbilical cord through which the umbilical vessels (two arteries and one vein) pass to the fetus. The cord is approx. 50 cm (20 in.) long at full term.

The mature placenta is 15 to 18 cm (6 to 7 in.) in diameter and weighs about 450 gm (approx. 1 lb). When expelled following parturition, it is known as the afterbirth.

Maternal blood enters the intervillous spaces of the placenta through spiral arteries, branches of the uterine arteries. It bathes the chorionic villi and flows peripherally to the marginal sinus, which leads to uterine veins. Food molecules, oxygen, and antibodies pass into fetal blood of the villi; metabolic

waste products pass from fetal blood into the mother's blood. Normally, there is no admixture of fetal and maternal blood. The placenta is also an endocrine organ. It produces chorionic gonadotropins, the presence of which in urine is the basis of one type of pregnancy test. Estrogen and progesterone are also secreted by the placenta.

**abruption of p.** Abruption placentae.

**accessory p.** A placenta separate from the main placenta.

**p. accreta** A placenta in which the cotyledons have invaded the uterine musculature, resulting in difficult or impossible separation of the placenta.

**adherent p.** A placenta that remains adherent to the uterine wall after the normal period following childbirth.

**annular p.** A placenta that extends like a belt around the interior of the uterus. SYN: *zonary placenta*.

**battledore p.** A form of insertion of the umbilical cord into the margin of the placenta in which it spreads out to resemble a paddle or badminton racket.

**bidiscoidal p.** A placenta with two separate portions attached to separate sites on the wall of the uterus, occasionally found in humans.

**bilobate p.** A placenta consisting of two lobes. SYN: *dimidiate placenta*.

**bipartite p.** A placenta divided into two separate parts.

**chorioallantoic p.** A placenta in which the allantoic mesoderm and vessels fuse with the inner face of the serosa to form the chorion.

**circinate p.** A cup-shaped placenta.

**p. circumvallata** A placenta whose membranes wrap over the edge of the fetal surface of the organ.

**circumvallate p.** Placenta circumvallata.

**cirroid p.** A placenta with appearance of varicose veins.

**cordiform p.** A placenta having a marginal indentation, giving it a heart shape.

**deciduate p.** A placenta of which the maternal part escapes with delivery.

**dimidiata p.** Bilobate p.

**discoid p.** A placenta that constitutes practically one circumscribed and circular mass.

**double p.** A placental mass of the two placentae of a twin gestation.

**endotheliochorial p.** A placenta in which the syncytial trophoblasts of the chorion penetrate to the blood vessels of the uterus.

**epitheliochorial p.** A placenta in which the chorion is next to the lining of the uterus but does not invade or erode the lining.

**p. fenestrata** A placenta in which a portion of the placental tissue is thinning or absent.

**fetal p.** That part of the placenta formed by aggregation of chorionic villi in which the umbilical vein and arteries ramify.

**fundal p.** A placenta attached to the uterine wall within the fundal zone.

**hemochorial p.** A placenta in which the maternal blood is in direct contact with the chorion. The human placenta is of this type.

**hemoendothelial p.** A placenta in which the maternal blood is in contact with the endothelium of the chorionic vessels.

**horseshoe p.** A formation in which the two placentae of a twin gestation are united.

**incarcerated p.** A placenta retained in the uterus by irregular uterine contractions after delivery.

**p. increta** A form of placenta accreta in which the chorionic villi invade the myometrium.

**lateral p.** A placenta attached to the lateral wall of the uterus.

**maternal p.** A portion of the placenta that develops from the decidua basalis of the uterus.

**membranous p.** Thinning of the placenta from atrophy.

**multilobate p.** A placenta with more than three lobes.

**nondeciduate p.** A placenta that does not shed the maternal portion.

**p. percreta** A type of placenta ac-

creta in which the myometrium is invaded by the serosa of the peritoneum covering the uterus. This may cause rupture of the uterus.



**p. previa** ABBR: PP. A placenta that is implanted in the lower uterine segment. There are three types: centralis, lateralis, and marginalis. Placenta previa centralis (total or complete PP) is the condition in which the placenta has been implanted in the lower uterine segment and has grown to completely cover the internal cervical os. Placenta previa lateralis (low marginal implantation) is the condition in which the placenta lies just within the lower uterine segment. Placenta previa marginalis is the condition in which the placenta partially covers the internal cervical os (partial or incomplete PP). SEE: *Nursing Diagnoses Appendix*.

**SYMPTOMS:** The condition is more common in multigravidas than primigravidas, and occurs in about 1 in every 200 pregnancies. Slight hemorrhage, recurrent with greater severity, appears in the seventh or eighth month of pregnancy. Gradual anemia, pallor, rapid weak pulse, air hunger, and low blood pressure occur.

**DIAGNOSIS:** Painless bleeding during the last 3 months and a placenta found in the lower portion of the uterus are diagnostic.

**TREATMENT:** The blood supply before and during delivery should be conserved. Postpartum hemorrhage should be prevented or controlled. Anemia should be treated before and after labor. Prevention of sepsis is necessary.

**PROGNOSIS:** The prognosis for the mother is good with control of hemorrhage and prevention of sepsis. Prognosis for the fetus depends on gestational age and the amount of blood lost, but continuous monitoring and rapid intervention help to prevent neonatal death.

**PATIENT CARE:** In a calm environment, the patient is told what is happening; then the procedure of vaginal ultrasound is explained. The patient is told that if the ultrasound examination reveals a placenta previa, sterile vaginal examination will be delayed if possible until after 34 weeks' (preferably 36 weeks') gestation (to enhance the chances for fetal survival) and then will be carried out only as a "double-setup" procedure, with all preparations needed for immediate vaginal or cesarean delivery. (If, however, the ultrasound examination reveals a normally implanted placenta, a sterile vaginal speculum examination is performed to rule out local bleeding causes, and a laboratory study is ordered to rule out coagulation problems.)

The patient is maintained on absolute

bedrest and under close supervision (usually in the hospital) to extend the period of gestation until 36 weeks, when fetal lung maturity is likely (or can be stimulated to mature 48 hr before delivery). Intravenous access is established using a large-bore catheter, and continuous external electrode fetal monitoring is initiated. Maternal vital signs are closely monitored, and the amount of vaginal bleeding is assessed. The laboratory types and cross-matches blood for emergency use; the number of units is based on the assessment of the particular patient's possible requirements. The patient's hematocrit level is kept at 30% or greater. The patient is prepared physically and emotionally for cesarean delivery; vaginal delivery may be attempted, but only if the previa is marginal, bleeding is minimal, and labor is rapidly progressing.

After delivery, the patient is monitored closely for continued bleeding, which may occur from the large vascular channels in the lower uterine segment, even if the fundus is firmly contracted. Prophylactic antibiotic therapy may be prescribed because of the patient's propensity for infection. Oxytocic drugs are given to control bleeding; packed cells or whole blood also are given. The obstetrical surgery team remains available, in case further intervention is required. The patient's hemodynamic status is monitored continuously, to provide blood and fluid replacement needed to prevent and treat hypovolemia while avoiding hypervolemia.

Although maternal mortality remains a concern, the patient and her family should be assured that this is unlikely but not impossible in most large treatment centers because of the conservative regimen that is followed. A pediatric team is present at delivery to assess and treat neonatal hypoxia, anemia, blood loss, and shock. In the event of fetal distress or death, the family is informed that these are related to detachment of a significant portion of the placenta or to maternal hypovolemic shock, or both. All parents are provided opportunities to be with and touch their (usually premature) neonate in the critical care nursery. In cases of fetal demise, the infant is carefully wrapped and the parents encouraged to hold their baby, and to examine it as they desire. Infant photographs may be taken to provide memories for the family. The patient and family require the health care providers' empathetic concern and support. A social service consultation is set up if financial or home and family care concerns require agency referrals; spiritual counseling is supplied according to the patient's wishes. Reducing

maternal anxiety helps reduce uterine irritability, so a mental health practitioner should be consulted if the patient does not respond to nursing interventions (e.g., relaxation techniques, guided imagery) or if the patient's previous coping skills are known to be ineffective.

**p. previa partialis** A placenta that only partially covers the internal os of the uterus.

**p. reflexa** An abnormal placenta in which the margin is thickened and appears to turn back on itself.

**reniform p.** A kidney-shaped placenta.

**retained p.** A placenta not expelled within 30 min after completion of the second stage of labor.

**p. spuria** An outlying portion of the placenta that has not maintained its vascular connection with the decidua vera.

**succenturiate p.** An accessory placenta that has a vascular connection to the main part of the placenta.

**trilobate p.** A placenta with three lobes.

**tripartite p.** A three-lobed placenta attached to a single fetus.

**triple p.** A placental mass of three lobes in a triple gestation.

**p. uterina** The maternal part of the placenta.

**velamentous p.** A placenta with the umbilical cord attached to the membrane a short distance from the placenta, the vessels entering the placenta at its margin.

**villous p.** A placenta in which the chorion forms villi.

**zonary p.** Annular p.

**placental** (plă-sĕn'täl) [L. *placenta*, a flat cake] Rel. to the placenta.

**p. blood banking** The use of human placental tissue as a source of fetal blood and hematopoietic stem cells.

**placentation** (plă'sĕn-tă'shŭn) The process of formation and attachment of the placenta.

**placentitis** (plă'sĕn-tī'tis) [l' + Gr. *itis*, inflammation] Inflammation of the placenta.

**placentography** (plă'sĕn-tŏg'ră-fĕ) [l' + Gr. *graphein*, to write] Examination of the placenta by radiography.

**indirect p.** Measurement of the space between the placenta and the head of the fetus by means of radiographical examination. It is done to diagnose placenta previa.

**Placido's disk** (plă-sĕ'dŏz) [Antonio Placido, Portuguese ophthalmologist, 1848–1916] A disk marked with concentric black and white circles used in determining the amount and character of corneal irregularity.

**placode** (plăk'ŏd) [Gr. *plax*, plate, + *ei-dos*, form, shape] In embryology, a

platelike thickening of epithelium, usually the ectoderm, that serves as the precursor of an organ or structure.

**auditory p.** A dorsolateral placode located alongside the hindbrain that gives rise to the otocyst, which in turn develops into the internal ear.

**lens p.** A placode developing in the ectoderm directly overlying the optic vesicle. It forms the lens vesicle, which becomes enclosed in the optic cup and eventually becomes the lens of the eye.

**olfactory p.** A placode that first gives rise to the olfactory pit and later to the major portion of the nasal cavity.

**placoid** (plāk'oyd) [*l'* + *eidōs*, form, shape] Platelike.

**plagio-** [Gr. *plagios*, slanting or sideways] Combining form meaning *slanting, oblique*.

**plagioccephaly** (plā'jē-ō-sēf'ā-lē) A malformation of the skull producing the appearance of a twisted and lopsided head; caused by irregular closure of the cranial sutures.

**plague** (plāg) [L., *plaga*, blow, injury]

**1.** Any widespread contagious disease associated with a high death rate. **2.** An often fatal disease caused by *Yersinia pestis*. The natural hosts are ground squirrels, wild rodents, and rats; the vector is the rat flea. In the U.S., hunters, trappers, and campers may encounter infected mammals. Outbreaks are also associated with crowded living conditions and poor sanitation. Although plague was responsible for millions of deaths during the Middle Ages, improvements in sanitation, medical care, and the availability of antibiotics now prevent widespread epidemics. Plague is characterized by high fever, restlessness, confusion, prostration, delirium, shock, and coma. Streptomycin (the antibiotic of choice), gentamicin, tetracyclines, doxycycline, fluoroquinolones, and chloramphenicol are effective in treating plague. In the U.S., about 15 cases of plague are reported annually, primarily in western and southwestern regions. If treated promptly, plague is rarely fatal; however, in the U.S. about 1 in 7 people infected dies, usually because of delayed diagnosis or treatment.

**ambulatory p.** A mild form of bubonic plague.

**black p.** Plague.

**bubonic p.** Plague.

**hemorrhagic p.** A severe form of bubonic plague in which there is hemorrhage into the skin.

**murine p.** A plague infecting rats.

**pneumonic p.** A highly virulent form of plague spread from person to person by respiratory secretions. It occurs as a sequela of bubonic plague or as a primary infection.

**septicemic p.** Severe bubonic plague;

septicemia may precede the formation of buboes.

**sylvatic p.** Bubonic plague that is endemic among wild rodents and their fleas.

**plaintiff** The person, entity, or party who sues or brings a legal action against another and seeks damages or other legal relief. SEE: *defendant*.

**plait** (plāt) To braid; to make separate strands of tissue into a ropelike structure (e.g., during tendon repair).

**plan** The conscious design of desired future states and of the goals, objectives, and activities required.

**birth p.** Written specifications for the management of labor, delivery, and recovery as desired by the expectant mother or couple and approved by the physician or midwife. Components usually include pain management techniques, method of delivery, and family participation. SEE: *Lamaze technique; Leboyer method*.

**dental care p. 1.** The statement of the goals, objectives, and procedures related to the dentist's care for the patient, based on the medical history, oral examination, and oral radiographs. **2.** Third-party insurance that covers part or all of the cost for regular dental care.

**health p.** A corporation that provides medical insurance.

**individual education p.** ABBR: IEP. A federally required, individual program of goals and methods for addressing needs of students receiving special education and related services in public schools. They are required under the provisions of federal legislation providing for a free and appropriate education for individuals with disabilities, as amended (Individuals with Disabilities Education Act [IDEA]-PL 104-134, Amended in 1997). The law mandates that for each child receiving special education services under the act, a written plan, involving input from teachers, service providers, and parents, will document the needs of the child, how those special needs will be addressed, and when and how the effectiveness of the services will be evaluated.

**individualized family service p.** ABBR: IFSP. A written document, developed collaboratively by parents of young children with disabilities and related service personnel, that describes plans for intervention and educational placement. Twenty-five percent of occupational therapists now practice in school settings with the purpose of meeting the legislated mandate for public schools to provide related services for children with disabilities.

**medical care p.** The goals and objectives of the physician's care and the



treatment instituted to accomplish them.

**nursing care p.** SEE: *nursing care plan*.

**treatment p.** SEE: *treatment plan*.

**planaria** (plă-năr'ē-ă) Free-living flat-worms of the Turbellaria class.

**plan of care, care plan** A description of the goals and outcomes, prognosis, and proposed interventions for a particular patient, including criteria for discharge and the optimal duration and frequency of therapeutic interventions.

**planchet** (plăn'chët) A small, flat container or dish on which a radioactive sample is placed.

**plane** (plān) [L. *planus*] **1.** A flat or relatively smooth surface. **2.** A flat surface formed by making a cut, imaginary or real, through the body or a part of it. Planes are used as points of reference by which positions of parts of the body are indicated. In the human subject, all planes are based on the body being in an upright anatomical position. SEE: *illus.*; *anatomical position*. **3.** A certain stage, as in levels of anesthesia. **4.** To smooth a surface or rub away.

**Addison's p.** [Christopher Addison, Brit. anatomist, 1869–1951] One of the planes used as landmarks in thoraco-abdominal topography.

**alveolocondylar p.** A plane tangent

to the alveolar point with most prominent points on lower aspects of condyles of the occipital bone.

**axiolabiolingual p.** A plane that passes through an incisor or canine tooth parallel to the long axis of the tooth and in a labiolingual direction.

**axiomesiodistal p.** A plane that passes through a tooth parallel to the axis and in a mesiodistal direction.

**Baer's p.** SEE: *Baer's plane*.

**bite p.** A plane formed by the biting surfaces of the teeth.

**coccygeal p.** The fourth parallel plane of the pelvis.

**coronal p.** A vertical plane at right angles to a sagittal plane. It divides the body into anterior and posterior portions. SYN: *frontal plane*.

**datum p.** An assumed horizontal plane from which craniometric measurements are taken.

**Daubenton's p.** SEE: *Daubenton's plane*.

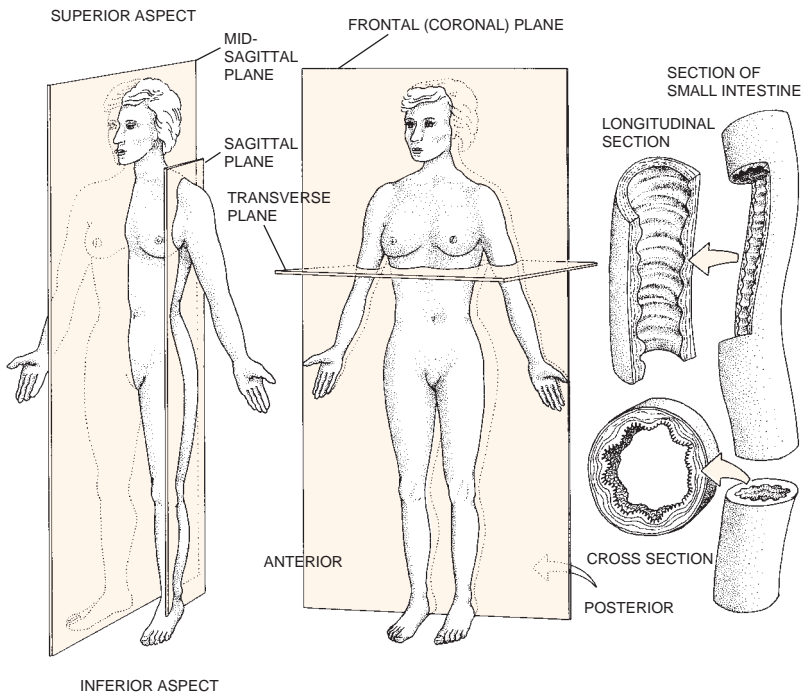
**focal p.** One of two planes through the anterior and posterior principal foci of a dioptric system and perpendicular to the line connecting the two.

**Frankfort horizontal p.** SEE: *Frankfort horizontal plane*.

**frontal p.** Coronal p.

**Hodge's p.** SEE: *Hodge's plane*.

**horizontal p.** A transverse plane at



**BODY PLANES AND SECTIONS**

right angles to the vertical axis of the body.

**inclined p. of the pelvis** Anterior and posterior inclined planes of the pelvic cavity, two unequal sections divided by the sciatic spines. In the larger, anterior section, the lateral walls slope toward the symphysis and arch of the pubes; the posterior walls slope in the direction of the sacrum and coccyx. The anterior inclined planes are the declivities over which rotation of the occiput takes place in the mechanism of normal labor.

**inclined p. of a tooth** Any sloping surface of the cusp of a tooth.

**intertubercular p.** A horizontal plane passing through the tubercles of the crests of the ilia; lies approx. at the level of the fifth lumbar vertebra.

**Listing's p.** SEE: *Listing's plane*.

**median p.** A vertical plane through the trunk and head dividing the body into right and left halves. SYN: *midsagittal plane*. SEE: *plane for ilius*.

**midsagittal p.** Median p.

**Morton's p.** SEE: *Morton's plane*.

**occlusal p.** An imaginary plane extending from the incisal edge of the incisors along the tips of the cusps of the posterior teeth to contact the cranium. Although not a true plane, it represents the mean of the curvature of the occlusal surface.

**parallel p. of the pelvis** The planes intersecting the axis of the pelvic canal at right angles. The first plane is that of the superior strait; the second that extending from the middle of the sacral vertebra to the level of the subpubic ligament. The third plane is at the level of the spines of the ischia, and the fourth plane is at the outlet.

**p. of the pelvis** Imaginary planes touching the same parts of the pelvic canal on both sides.

**p. of refraction** A plane passing through a refracted ray of light and drawn perpendicular to the surface at which refraction takes place.

**p. of regard** A plane through the fovea of the eye; fixation point.

**sagittal p.** A vertical plane through the longitudinal axis of the body or part of the body, dividing it into right and left parts. If it is through the anteroposterior midaxis and divides the body into right and left halves, it is called a *median* or *midsagittal plane*.

**subcostal p.** A horizontal plane passing through the lowest points of the 10th costal cartilages. It lies approx. at the level of the third lumbar vertebra.

**transverse p.** A plane that divides the body into a top and bottom portion.

**treatment p.** A plane in the concave joint surface that defines the direction of joint mobilization techniques. The plane is perpendicular to a line drawn

from the axis of rotation in the convex joint surface to the center of the concave surface. Joint distraction techniques are applied perpendicular to, and gliding techniques parallel to, the treatment plane.

**vertical p.** Any body plane perpendicular to a horizontal plane.

**visual p.** A plane passing the visual axis of the eye.

**planigraphy** (plā-nīg'rā-fē) [ʹ + Gr. *graphein*, to write] Tomography.

**planimeter** (plā-nīm'ē-tēr) [ʹ + Gr. *metron*, measure] An apparatus used to measure the area of a plane figure by passing a tracer around the boundaries.

**planing** (plā'nīng) 1. Dermabrasion. 2. In dentistry, a meticulous deep scaling procedure designed to remove calculus, diseased cementum or dentin, microbial flora, and bacterial toxins on the root surface of a tooth or in a gingival pocket. The smooth, healthy root facilitates reattachment of the soft tissues of the peridontium. SYN: *root planing*.

**plankton** (plānk'tōn) [Gr. *planktos*, wandering] A freely floating organism — one that is not anchored to a surface, e.g., some algae, bacteria, crustaceans, and diatoms.

**planned parenthood** The concept that a couple or a woman may choose when to conceive and give birth. This is, of course, accomplished only by the careful and proper use of some form of birth control.

**planning** In the nursing process, the step following nursing diagnosis. After the nursing diagnoses have been established, the next action is noting the priority of the diagnoses and indicating the actions that will accomplish the immediate and long-range goals of the nursing process. Specific nursing interventions are indicated, and the expected outcomes of these actions are recorded on the chart. This portion of the nursing process is dynamic and will need to be altered as the patient's course evolves. The evaluation of the effectiveness of the nursing process will be essential to restating the plan for administering nursing care. SEE: *nursing process*; *nursing assessment*; *evaluation*; *nursing intervention*; *problem-oriented medical record*.

**planocellular** (plā'nō-sēl'ū-lār) [L. *planus*, plane, + *cellula*, cell] Composed of flat cells.

**planoconcave** (plā'nō-kōn'kāv) [ʹ + *concavus*, hollow] An optical lens that is flat on one side and concave on the other.

**planoconvex** (plā'nō-kōn'veks) [ʹ + L. *convexus*, arched] An optical lens that is flat on one side and convex on the other.

**Planorbis** (plān-or'bis) A genus of freshwater snails that is the intermediate

host for some species of schistosomal blood flukes.

**planotopokinesia** (plā'nō-tōp"ō-kī-nē'zē-ā) [*pl* + *topos*, place, + *kinesis*, movement] Loss of orientation in space.

**plant** (plānt) [L. *planta*, a sprout] An organism that contains chlorophyll and synthesizes carbohydrates and oxygen from carbon dioxide and water. Plants make up one of the five kingdoms of living things. SEE: *chlorophyll*.

**plantago seed** (plān-tā'gō) The cleaned, dried, ripe seed of *Plantago psyllium* or *P. indica*. It is used as a cathartic, but usually in a powdered form rather than in the form of whole seeds.

**plantalgia** (plān-tāl'jē-ā) [L. *planta*, sole of the foot, + Gr. *algos*, pain] Pain in the sole of the foot.

**planta pedis** (plān'tā pē'dūs) *pl. plantae* [L.] The sole of the foot.

**plantar** (plān'tār) Concerning the sole of the foot.

**plantar flexion** Extension of the foot so that the forepart is depressed with respect to the position of the ankle. SEE: *dorsiflexion*.

**plantaris** (plān-tār'īs) [L.] A long slim muscle of the calf between the gastrocnemius and soleus. It is sometimes double and at other times missing.

**plantation** (plān-tā'shūn) [L. *plantare*, to plant] Insertion of a tooth into the bony socket from which it may have been removed by accident, or transplantation of a tooth into the socket from which a tooth has just been removed. The transplanted tooth may come from the patient or a donor.

**plantigrade** (plān'ti-grād) [L. *planta*, sole of the foot, + *gradī*, to walk] A type of foot posture in which the entire sole of the foot is placed on the ground in walking, as in the bear, rabbit, or human.

**planula** (plān'ū-lā) The larval stage of a coelenterate.

**planum** (plā'nūm) *pl. plana* [L.] A flat or relatively smooth surface; a plane.

**nuchal p.** The outer surface of the occipital bone between the foramen magnum and superior nuchal line.

**occipital p.** The outer surface of the occipital bone lying above the superior nuchal line.

**popliteal p.** A smooth triangular area on the posterior surface of distal end of femur. It is bordered by the medial and lateral supracondylar lines and forms the floor of the popliteal fossa.

**sternal p.** The anterior or ventral surface of the sternum.

**planuria** (plā-nū'rē-ā) [Gr. *plane*, wandering, + *ouron*, urine] The voiding of urine from an abnormal passage of the body.

**plaque** (plāk) [Fr., a plate] A patch on the skin or on a mucous surface.

**atheromatous p.** An obstruction in

the lining of an artery, formed by the abnormal accumulation of lipids (fats) and sometimes calcium.

**bacterial p.** Dental p.

**dental p.** A biofilm that accumulates and grows on the crowns of teeth. Plaque is colorless, transparent, and the forerunner of dental caries and periodontal disease. Measures to prevent plaque buildup include daily self-care of the teeth, careful use of dental floss, and periodic prophylaxis by a dentist or dental hygienist.

**TREATMENT:** Treatment should include removal on a daily basis. Brushing and flossing are typical methods of plaque removal. Additional techniques may include water irrigation, chemical plaque control, and auxiliary oral hygiene aids. SEE: *calculus*; *caries*; *periodontal disease*; *periodontitis*.

**mucous p.** Condyloma latum.

**senile p.** Accumulations of bundled amyloid fibrils surrounding normal and damaged neurons in the brain, a finding on pathological inspection of brain tissue from patients with Alzheimer's dementia.

**-plasia** [Gr. *plasis*, molding] Combining form used as a suffix indicating *formation, growth, proliferation*.

**plasm** (plāzm) [LL. *plasma*, form, mold] Plasma.

**plasm-** [Gr. *plasma*, anything formed] Combining form meaning *living substance, tissue*.

**plasma** (plāz'mā) [LL. *plasma*, form, mold] **1.** An ointment base of glycerol and starch. **2.** The liquid part of blood and of lymph. SYN: *blood p.*

Plasma forms 52% to 62% of the total blood volume and is a transport medium and a medium for chemical reactions. It is about 91.5% water, and about 7% protein, including albumin, globulins, and the clotting factors. Also found in plasma are electrolytes that determine osmotic pressure and pH balance, nutrients and waste products, and hormones. Most carbon dioxide is transported in plasma in the form of bicarbonate ions. Plasma from which clotting factors have been removed is called serum.

**antihemophilic factor p.** Human plasma in which factor VIII, the antihemophilic globulin, has been preserved; used to correct temporarily the bleeding tendency in some forms of hemophilia. SEE: *hemophilia*.

**blood p.** Plasma (2).

**fresh frozen p.** ABBR: FFP. The fluid portion of one unit of human blood that has been centrifuged, separated, and frozen solid within 6 hours of collection. SEE: *blood component therapy*.

**hyperimmune p.** Plasma with a high titer of a specific antibody, administered

to create passive immunity to the antigen.

**normal human p.** Pooled plasma from a number of human donors. The plasma is selected from screened donors and sterilized.

**p. skimming** The natural separation of red blood cells from plasma at bifurcations in the vascular tree, dividing the blood into relatively concentrated and relatively dilute streams.

**plasmablast** (plāz'mā-blāst) [LL. *plasma*, form, mold, + Gr. *blastos*, germ] The undifferentiated cell that will mature into a B lymphocyte and ultimately into a plasma cell.

**plasmacytoma** (plāz'mā-sī'tō'mā) [" + *oma*, tumor] A tumor composed of plasma cells. SEE: *multiple myeloma*.

**plasmacytosis** (plāz'mā-sī-tō'sis) [" + *osis*, condition] An excess of plasma cells in the blood.

**plasma exchange therapy** The removal of plasma from a patient (usually to treat an immunologically mediated illness such as thrombotic thrombocytopenic purpura or myasthenia gravis) and its replacement with normal plasma. Plasma exchange therapy can also be used to replace excessively viscous plasma in patients with Waldenström's macroglobulinemia. Pathological (disease-causing) antibodies, immune complexes, and protein-bound toxins are removed from the plasma by plasma exchange.

Immunoglobulin infusions are an alternative to plasma exchange when treating some immunological illnesses, including Guillain-Barré syndrome and chronic inflammatory demyelinating polyneuropathy. SYN: *plasmapheresis*.

**plasmagene** (plāz'mā-jēn") [" + Gr. *gennan*, to produce] A cytoplasmic hereditary determiner.

**plasmalemma** (plāz'mā-lēm'ā) [" + Gr. *lemma*, husk] Plasma, or cell, membrane.

**plasmapheresis** (plāz'mā-fēr-ēs'is) [" + Gr. *aphairesis*, separation] Plasma exchange therapy.

**plasma protein fraction** A standard sterile preparation of serum albumin and globulin obtained by fractionating blood, serum, or plasma from healthy human donors and testing for absence of hepatitis B surface antigen. It is used as a blood volume expander.

**plasmatherapy** (plāz'mā-thēr'ā-pē) [" + Gr. *therapeia*, service] Plasma exchange therapy.

**plasmatic** (plāz-māt'ik) 1. Relating to plasma. 2. Formative or plastic.

**plasma very-long-chain fatty acid assay** ABBR: VLCFA assay. A blood test to detect adrenoleukodystrophy in infants suspected of the disease or adrenomyeloneuropathy in adults with progressive paraparesis.

**plasma volume expander** A high-molecular-weight compound in a solution suitable for intravenous use. The materials, such as dextran or certain proteins, are used in treating shock caused by loss of blood volume.

**plasmid** (plāz'mid) A piece of extrachromosomal, double-stranded DNA found in most bacteria. Plasmids replicate when a bacterium divides and are passed to subsequent cells. The products of plasmid genes are enzymes that provide resistance to antibiotics or that synthesize bacteriocins or other toxins. SYN: *episome*. SEE: *bacteriocin*; *transposon*.

**plasmin** (plāz'min) A fibrinolytic enzyme derived from its precursor plasminogen.

**plasminogen** (plāz'min'ō-jēn) A protein found in many tissues and body fluids; important in preventing fibrin clot formation.

**plasminogen activator inhibitor-1** A protein that degrades extracellular tissues. It has been linked to the invasive and metastatic spread of cancers.

**plasmocyte, plasmacyte** (plāz'mā-sīt) [" + Gr. *kytos*, cell] The malignant cells found in the bone marrow and occasionally in the blood of persons with multiple myeloma.

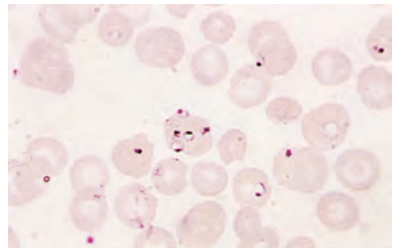
**plasmodesmata** (plāz'mō-dēz'mā-tā) *sing.*, **plasmodesma** [" + Gr. *desmos*, bond] Tunnels in plant cell walls. These facilitate communication between cells.

**plasmodial** (plāz-mō-dē-āl) Concerning plasmodia.

**plasmodicidal** (plāz'mō-dī-sī'dāl) [" + Gr. *eidōs*, form, shape, + L. *caedere*, to kill] Lethal to plasmodia.

**Plasmodium** (plāz-mō-dē-üm) A genus of protozoa belonging to subphylum Sporozoa, class Telosporidia; includes causative agents of malaria in humans and lower animals. SEE: *malaria*; *mosquito*.

**P. falciparum** The causative agent of malignant (falciparum) malaria. SEE: *illius*.



PLASMODIUM FALCIPARUM

Sporozoite ring forms in red blood cells  
(×1000)

**P. malariae** The causative agent of quartan malaria.

**P. ovale** The causative agent of benign tertian or ovale malaria.

**P. vivax** The causative agent of benign tertian or vivax malaria.

**plasmodium** (pláz-mô'dē-üm) *pl. plasmodia* [LL. *plasma*, form, mold, + Gr. *eidōs*, form, shape] **1.** A multinucleate mass of naked protoplasm, occurring commonly among slime molds. **2.** An organism in the genus *Plasmodium*.

**plasmogamy** (plás-mög'ă-mē) [ʹ + Gr. *gamos*, marriage] The fusion of cells.

**plasmolysis** (pláz-mól'ī-sis) [ʹ + Gr. *lysis*, dissolution] Shrinking of cytoplasm in a living cell caused by loss of water by osmosis.

**plasmorrhesis** (pláz'mō-rēk'sis) [ʹ + Gr. *rhēsis*, rupture] The rupture of a cell with loss of its contents. SYN: *erythrocytorrhēsis*.

**plasmotomy** (pláz-mōt'ō-mē) [ʹ + Gr. *tome*, incision] Cell division with unequal separation of cytoplasm.

**plastein** (plás'tē-in) A massive polypeptide formed by the hydrolysis of proteins and the subsequent recombination of amino acid esters. Plasteins can be derived from nonconventional sources of protein (e.g., cassava leaves or other plants) and used to make protein-rich foods.

**plaster** [Gr. *emplastron*] **1.** A material, usually plaster of Paris, that is applied to a part and allowed to harden in order to immobilize the part or to make an impression. In many settings, plaster of Paris has been replaced with synthetic cast materials, such as fiberglass. **2.** A topical preparation in which the constituents are formed into a tenacious mass of substance harder than an ointment and spread upon muslin, linen, skin, or paper.

**dental p.** A powder, when mixed with water, that hardens to form a stonelike investment or model material. It is composed of a hemihydrate of gypsum ( $\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$ ), which differs in compression strength and expansion coefficient according to how it is treated and rehydrated. There are four classes of dental plaster, with differing uses as materials for casts, impressions, or stone models, based on the differences of characteristics.

**mustard p.** Sinapsim.

**p. of Paris** Gypsum cement, hemihydrated calcium sulfate ( $\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$ ), mixed with water to form a paste that sets rapidly; used to make casts and stiff bandages.

**salicylic acid p.** A uniform mixture of salicylic acid spread on an appropriate base such as paper, cotton, or fabric. It is applied topically for use as a keratolytic agent.

**plastic** (plás'tik) [Gr. *plastikos*, fit for molding] **1.** Capable of being molded. **2.** Contributing to building tissues.

**plasticity** (plás-tis'ī-tē) **1.** The ability to be molded. **2.** The ability of tissues to grow, to adapt, or to integrate with others during development, after trauma, or after an illness.

**plastid** (plás'tid) [Gr. *plastos*, formed] An organelle in plant cells. It includes chloroplasts (which contain chlorophyll), leukoplasts (colorless), chromoplasts (which contain pigment), and amyloplasts (which store starch). Chloroplasts are the site of photosynthesis.

**-plasty** Suffix meaning *surgical repair*.

**plate** (plät) [Gr. *plate*, flat] **1.** A thin, flattened part or portion, such as a flattened process of a bone. SYN: *lamella*; *lamina*. **2.** An incorrect reference to a full denture. **3.** A shallow covered dish for culturing microorganisms. **4.** To inoculate and culture microorganisms in a culture plate.

**alar plate** In the embryo, the upper (dorsal) half of the neural tube (above the sulcus limitans). SYN: *alar lamina of neural tube*.

**belay p.** A metal, steel, or aluminum plate that has one or more slots in it, designed to weave a rope through, to create friction with a carabiner.

**bite p.** In dentistry, a plate made of some suitable plastic material into which the patient bites in order to have a record of the relationship between the upper and lower jaws. The device may be reinforced with wire and used as a splint in the mouth or to treat temporomandibular joint difficulties. SYN: *interocclusal record*; *occlusal template*.

**bone p.** A flat, round or oval decalcified bone or metal disk, employed in pairs, used in approximation.

**cortical p.** The compact layers of bone forming the surfaces of the alveolar processes of the mandible and maxilla.

**cribriform p.** **1.** The thin, perforated, medial portion of the horizontal plate of the ethmoid bone; the olfactory foramina are passages for the olfactory nerve. **2.** Alveolar bone, the spongy bone that makes up the wall of the socket for a tooth; found in the maxillae and mandible.

**dental p.** An old term for the denture base of metal or acrylic material that rests on the oral mucosa and to which artificial teeth are attached; by extension, *incorrectly* used to mean the complete denture.

**epiphyseal p.** The thin layer of cartilage between the epiphysis and the shaft of a bone. Growth in length of the bone occurs at this layer. SYN: *growth plate*.

**equatorial p.** The platelike mass of



chromosomes at the equator of the spindle in cell division.

**floor p.** In the embryonic neural tube, the wedge of cells in the ventral midline. These cells are primitive radial glia and do not give rise to neurons. The ventral commissures and decussations eventually develop through this structure. SYN: *ventral plate*.

**force p.** A device for determining weight-bearing loads and biomechanical forces placed on the foot during walking or running.

**growth p.** Epiphyseal p.

**medullary p.** The central portion of the ectoderm in the embryo developing into the neural canal.

**neural p.** A thickened band of ectoderm along the dorsal surface of an embryo. The nervous system develops from this tissue.

**palate p.** The part of the palatine bone forming the dorsal half of the roof of the mouth.

**polar p.** In some cells, the flattened platelike bodies seen at the end of the spindle during mitosis.

**pterygoid p.** Either of a pair of thin, bony processes that arise from the sphenoid bone. They are termed medial and lateral pterygoid plates on each side, serve to bound the infratemporal fossa, and give origin to muscles of mastication.

**pusher p.** A device that moves fluids in a specific direction.

**tarsal p.** The dense connective tissue structure that supports the eyelid. It was formerly called *tarsal cartilage*; however, it is not true cartilage.

**ventral p.** Floor plate.

**plateau** (plā-tō') **1.** An elevated and usually flat area; a steady and consistent fever appears as a plateau on the patient's chart of vital signs. **2.** The stage in training or skill acquisition when progress occurs at a very slow or flat rate in comparison with earlier phases.

**ventricular p.** The flat portion of the record of intraventricular pressure during the end of the ejection phase of ventricular systole.

**platelet** (plāt'lēt) [Gr. *plate*, flat] A round or oval disk, 2 to 4  $\mu\text{m}$  in diameter, found in the blood of vertebrates. Platelets number 130,000 to 400,000/ $\text{mm}^3$ . They are fragments of megakaryocytes, large cells found in the bone marrow. SYN: *thrombocyte*. SEE: *illus.*; *blood for illus.*; *megakaryocyte for illus.*; *thrombopoietin*.

**FUNCTION:** Platelets contribute to chemical blood clotting and to other aspects of hemostasis. Platelet factors are the chemicals released by platelets to initiate the first stage of (intrinsic pathway) chemical clotting. When a capillary ruptures, platelets adhere to each other and to the cut edges of the vessel,

forming a platelet plug. Blood clotting may be beneficial (e.g., in preventing blood loss from wounds) or may be harmful when it occurs within arteries or veins inside the body (e.g., during coronary thrombosis). Blood clotting is a positive feedback cascade that may continue and occlude an unbroken vessel.

**DISORDERS:** Thrombocytopenia (reduced platelet count) occurs in acute infections, anaphylactic shock, and certain hemorrhagic diseases and anemias. Thrombocytosis (increased platelet count) occurs after operations, esp. splenectomy, and after violent exercise and tissue injury.

**platelet-activating factor antagonist** Any drug that blocks the effects of platelet-activating factor on inflammatory or allergic diseases and conditions.

**platelet concentrate** Platelets prepared from a single unit of whole blood or plasma and suspended in a specific volume of the original plasma. This blood fraction must be used before the expiration date shown on its label. Platelets are stored at room temperature (22°C) either in plasma or in a concentrated form as platelet-rich plasma.

**platelet function assay-100** A test of the ability of platelets to occlude a small aperture when whole blood is forced through it under conditions of high shear stress. The time required for blood to occlude the aperture of the test device is known as the closure time. The test is used to evaluate diseases and conditions in which platelets may function abnormally, e.g., in menstruating women with menorrhagia or in patients suspected of having von Willebrand's disease.

**plateletpheresis** (plāt-lēt-fēr-ē'sis) The separation of platelets from other components of whole blood (e.g. for use in transfusion or to treat hematologic disease).

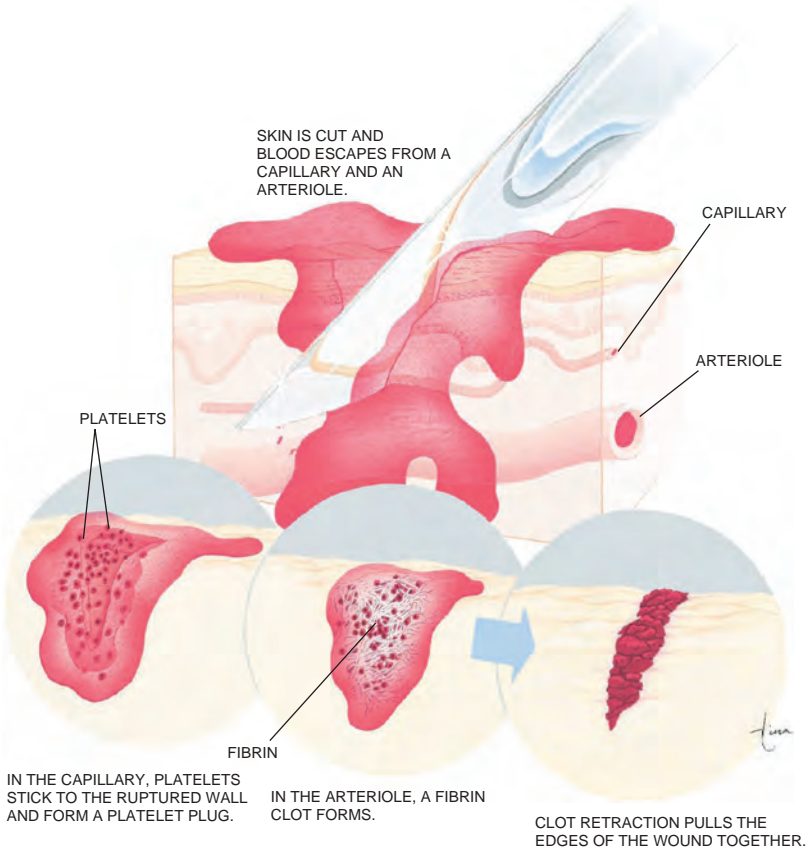
**platelet transfusion refractoriness** A failure of circulating platelet levels to rise after platelet transfusion. Alloimmunization against platelet antigens, disseminated intravascular coagulation, fever, hypersplenism, and sepsis are among the potential causes. A typical platelet transfusion should normally raise platelet counts by more than 20,000 platelets/microliter.

**-platin** (plāt-in) [Fm. *platin(um)*] A suffix used in pharmacology to designate any chemotherapeutic agent that contains platinum.

**plating** In bacteriology, inoculation of liquefiable, solid media (gelatin or agar) with microorganisms and pouring of medium into a shallow flat dish.

**platinic** (plā-tīn'ik) Pert. to a compound containing quadrivalent platinum.

**platinosis** (plā-tī-nō'sis) Cutaneous and



**PLATELET PLUG FORMATION AND CLOTTING**

respiratory allergic reactions to exposure to complex salts of platinum.

**platinous** (plăt'ĭ-nūs) A compound containing divalent platinum.

**platinum** (plăt'ĭ-nŭm) [Sp. *platina*] SYMB: Pt. A heavy silver-white metal; atomic weight 195.09; atomic number 78; specific gravity 21.45.

**platy-** [Gr. *platys*, broad] Combining form meaning *broad* or *flat*.

**platybasia** (plăt''ē-bā'sē-ā) A developmental defect of the skull in which the floor of the posterior fossa of the skull around the foramen magnum protrudes upward.

**platycephalic, platycephalous** (plăt''ē-sē-făl'ĭk, -sēf'ă-lūs) [" + *kephale*, head] Having a wide skull with a vertical index less than 70.

**platycephaly** (plăt''ē-sēf'ă-lē) Flattening of the skull. SYN: *platycrania*.

**platycnemia** (plăt-ĭk-nē'mē-ā) [" + *kneme*, leg] **1.** The condition of having an unusually broad tibia. **2.** A broad-legged condition.

**platycoria, platycoria** (plăt''ē-kor-ē'ă, -kor-ĭ'ă-sĭs) [" + *kore*, pupil] Mydriasis.

**platycrania** (plăt''ē-krā'nē-ā) [" + *kranion*, skull] Platycephaly.

**platyglossal** (plăt''ē-glōs'ăl) [Gr. *platys*, broad, + *glossa*, tongue] Having a broad, flat tongue.

**platyhelminth** (plăt''ē-hěl'mĭnth) The common name for any flatworm.

**Platyhelminthes** (plăt''ē-hěl'mĭn'thēz) [" + *helmins*, worm] A phylum of flatworms including the classes Turbellaria, Trematoda (flukes), and Cestodea (tapeworms). The last two are parasitic and include many species of medical importance. SEE: *Cestoda*; *Cestodea*; *fluke*; *tapeworm*; *trematode*.

**platyhiere** (plăt''ē-hĭ-ēr'ĭk) [" + *hieron*, sacrum] Having a broad sacrum with a sacral index over 100.

**platymeric** (plăt''ē-mē'rĭk) [" + *meros*, thigh] Having an unusually broad femur.

**platymorphia** (plăt''ē-mor'fē-ā) [" +

*morphe*, form] Having an eye with a shortened anteroposterior diameter, which results in hyperopia.

**platyopia** (plăt"ē-ō'pē-ā) [" + *ops*, face] Having a very broad face, with a nasomalar index of less than 107.5.

**platypotic** (plăt"ē-ōp'ik) Having a broad, flattened face.

**platypellic**, **platypelvic**, **platypeloid** (plăt"ē-pěl'ik, -vik, -oyd) [" + *pella*, a basin] Having a broad pelvis. SEE: *pelvis*, *platypellic*.

**platypnea** (plă'tip'nē-ā) [" + *pnoia*, breath] Shortness of breath, dyspnea, only when the patient is upright or seated. SEE: *orthopnea*.

**platyrrhine** (plăt'ir-in) [" + *rhis*, nose] 1. Having a very wide nose in proportion to length. 2. Pert. to a skull with a nasal index between 51.1 and 58.

**platysma myoides** (plă-tiz'mā mī-oy'dēz) [Gr. *platysma*, plate, + *mys*, muscle, + *eidōs*, form, shape] A broad, thin, platelike layer of muscle that extends from the fascia of both sides of the neck to the jaw and muscles around the mouth. It acts to wrinkle the skin of the neck and depress the jaw.

**platyspondylia** (plăt"ē-spōn-dil'ē-ā) Flatness of the vertebral bodies.

**platystencephaly** (plăt"i-stēn-sēf'ā-lē) [" + *kephale*, head] Having a skull wide at the occiput.

**Plavix** SEE: *clopidogrel*.

**play** 1. Involvement in a sport, amusement, or any form of recreation, esp. an activity other than that in which one is usually engaged as an occupation. From the medical standpoint, it is important that the recreational activity be enjoyable and that participation in it be safe and satisfactory. 2. Unimpeded motion, as of a joint.

**play therapy** The use of play, esp. with dolls and toys, to allow children to express their feelings. This may permit insight into their thought processes that could not be obtained through verbal communication.

**pleasure** [L. *placere*, to please] The feeling of being delighted or pleased.

**pleasure principle** In psychoanalytic theory, the idea that people strive to avoid pain, hunger, and physical or psychological stresses in favor of pleasant experiences, e.g., food, sex, and narcissistic satisfaction

**pledget** (plēj'ēt) [origin uncertain] 1. A small, flat compress, usually of gauze or absorbent cotton, used to apply or absorb fluid, to protect, or to exclude air. 2. A small spherical mass of cotton about 1/8 in. (3 mm) in diameter that is used with forceps for topical application of medicinal substances, particularly in dentistry.

**-plegia** (plē'jē-ā) [Gr. *plege*, stroke] Combining form used as a suffix meaning *paralysis*, *stroke*.

**pleio-, pleo-, plio-** Combining forms meaning *more*.

**pleiotropia** (plī"ō-trō'pē-ā) [Gr. *pleion*, more, + *trope*, turn] The ability of a gene to have many effects. SYN: *pleiotropism*.

**pleiotropism** (plī-ōt'rō-pīzm) [" + " + *-ismos*, condition] Pleiotropia.

**Pleistophora** (pli-stō-fō'rā) A genus of microsporidia that usually parasitizes fish. SEE: *microsporidiosis*.

**pleochoic** (plē"ō-krō'ik) [Gr. *pleon*, more, + *chroia*, color] Pleochromatic.

**pleochroism** (plē-ōk'rō-izm) [" + " + *-ismos*, condition] The property of a crystal that produces different colors when light passes through it at different angles.

**pleochromatic** (plē"ō-krō-măt'ik) [" + *chroma*, color] Pert. to the property of crystals and some other bodies that show different colors when seen from different axes. SYN: *pleochoic*.

**pleocytosis** (plē"ō-sī-tō'sis) [" + *kytos*, cell, + *osis*, condition] An excessive number of cells in a body fluid; used esp. to denote excessive lymphocytes in the cerebrospinal fluid.

**pleomorphic** (plē-ō-mor'fik) [" + *morphe*, form] Having many shapes.

**pleomorphism** (plē-ō-mor'fizm) [" + " + *-ismos*, condition] Polymorphism.

**pleomorphous** (plē-ō-mor'fūs) Having many shapes or crystallizing into several forms.

**pleonasm** (plē'ō-nāzm) [Gr. *pleonasmus*, exaggeration] 1. The state of having more than the normal number of organs or parts. 2. The use of more words than necessary to express an idea.

**pleonosteosis** (plē"ōn-ōs'tē-ō'sis) [Gr. *pleon*, more, + *osteon*, bone, + *osis*, condition] Premature and excessive ossification of bones.

**plerocercoid** (plēr-ō-sēr-kōyd) The wormlike larvae of certain tapeworms, which develop in secondary hosts.

**Plesiomonas shigelloides** (plē-sē-ō-mōn'ās, ōm'ā shī-gēl-oi'dēz, ō'i-) [Gr. Gr. *plesios*, close, nearby + " + "'] A gram-negative facultatively anaerobic rod-shaped bacterium. It is thought to be a cause of gastroenteritis/infectious diarrhea acquired from contaminated water.

**pleiomorphism** (plē"sē-ō-mor'fizm) [Gr. *plesios*, close, + *morphe*, form, + *-ismos*, condition] Similarity of form.

**plesiopia** (plē"sē-ō'pē-ā) [" + *ops*, eye] An increase in the convexity of the lens of the eye.

**plessesthesia** (plēs"ēs-thē'zē-ā) [Gr. *plessein*, to strike, + *aisthesis*, sensation] Palpatory percussion with the left middle finger pressed against the body and the right index finger percussing in contact with the left finger.

**plessimeter** (plēs-sīm'ē-tēr) [" + *metron*, measure] Pleximeter.

**plessor** (plēs'or) [Gr. *plessein*, to strike] Plexor.

**plethora** (plēth'ō-rā) [Gr. *plethore*, fullness] **1.** Overfullness of blood vessels or of the total quantity of any fluid in the body. SEE: *sanguine*. **2.** Congestion causing distention of the blood vessels.

**plethoric** (plē-thor'ik, plēth'ō-rīk) Pert. to, or characterized by, plethora; overfull.

**plethysmograph** (plē-thīz'mō-grāf) [Gr. *plethysmos*, to increase, + *graphein*, to write] A device for finding variations in the size of a part owing to variations in the amount of blood passing through or contained in the part.

**body p.** A body box used to measure lung volume and pressure.

**impedance p.** A device that uses gas-to-tissue ratio to set an alarm or measure a volume.

**plethysmography** (plēth'iz-mōg'rā-fē) The use of a plethysmograph to record the changes in volume of an organ or extremity.

**air displacement p.** A technique for measuring body composition (body volume and percentage of body fat) that relies on the relative volume and pressure of gas displaced by the body when it is placed inside a plethysmograph.

**pleur-, pleuro-** [Gr. *pleura*, rib, side] Combining forms meaning *pleura*, *side*, *rib*.

**pleura** (ploō'rā) *pl. pleurae* [Gr., side] A serous membrane that enfolds both lungs and is reflected upon the walls of the thorax and diaphragm. The pleurae are moistened with a serous secretion that reduces friction during respiratory movements of the lungs. SEE: *effusion*, *pleural*; *mediastinum*; *thorax*.

**costal p.** Parietal pleura.

**mediastinal p.** The portion of the parietal pleura that extends to cover the mediastinum.

**parietal p.** The serous membrane that lines the chest cavity; it extends from the mediastinal roots of the lungs and covers the sides of the pericardium to the chest wall and backward to the spine. The visceral and parietal pleural layers are separated only by a lubricating secretion. These layers may become adherent or separated by air or by blood, pus, or other fluids, when the lungs or chest wall are injured or inflamed. SYN: *costal p.*

**visceral p.** The pleura that covers the lungs and enters into and lines the interlobar fissures. It is loose at the base and at the sternal and vertebral borders to allow for lung expansion.

**pleuracotomy** (ploor'ā-kōt'ō-mē) [ʹ + *tome*, incision] Incision into the pleura through the chest wall.

**pleural** (ploō'rāl) [Gr. *pleura*, side] Concerning the pleura.

**p. fibrosis** A condition occurring in

pulmonary tuberculosis, asbestosis, and other lung diseases in which the pleura becomes thickened and the pleural space may be obliterated.

**p. reaction** Thickening of the pleura, or of the pleural shadow, on an x-ray, which is an indication of pleural disease, pleural effusion, or infiltration by cancer.

**pleuralgia** (ploō-rāl'jē-ā) [ʹ + *algos*, pain] Pain in the pleura, or in the side. SYN: *intercostal neuralgia*.

**pleurectomy** (ploō-rēk'tō-mē) [ʹ + *ektome*, excision] Excision of part of the pleura.

**pleurisy** (ploō'ris-ē) [Gr. *pleuritis*] Inflammation of the visceral and parietal pleurae that surround the lungs and line the thoracic cavity. It may be primary or secondary; unilateral, bilateral, or local; acute or chronic; fibrinous, serofibrinous, or purulent. Common causes of pleurisy include viral infections, pneumonia, pulmonary embolism, rib fracture, and serositis from autoimmune diseases. SYN: *pleuritis*. SEE: *Nursing Diagnoses Appendix*.

**SYMPTOMS:** Sharp stabbing pain exacerbated by breathing is characteristic.

**PATIENT CARE:** Respiratory function is monitored by auscultation, observation of breathing pattern, and oximetry. The patient is positioned in the high Fowler position to facilitate chest expansion. Rest is encouraged. Deep breathing using incentive spirometry is encouraged every 1 to 2 hr to prevent atelectasis. To reduce discomfort when coughing, the patient should splint the chest with a pillow and administer analgesic drugs and use noninvasive measures, such as local application of warm or cool compresses. Respiratory toilet is provided if secretions are present. Rest is recommended. Prescribed medical regimens are carried out, with treatment directed at the underlying cause, and the patient's responses evaluated. Severe pain may be managed with intercostal nerve block. Thoracentesis may be required if pleural effusion is present.

**adhesive p.** Pleurisy in which the exudate causes the parietal pleura to adhere to the visceral. If this is extensive, the pleural space is obliterated.

**diaphragmatic p.** Inflammation of the diaphragmatic pleura. Symptoms include intense pain under the margin of the ribs, sometimes referred into the abdomen, with tenderness upon pressure; thoracic breathing; tenderness over the phrenic nerve referred to the supraclavicular region in the neck on the same side; hiccough; and extreme dyspnea.

**dry p.** A condition in which the pleural membrane is covered with a fibrinous exudate.

- p. with effusion** Pleural effusion.
- tuberculous p.** Inflammation of the pleura as a result of tuberculosis. The effusion may be bloody.
- typhoid p.** Pleurisy with symptoms of typhoid.
- pleuritic** (ploō-rīt'ik) [Gr. *pleuritis*, pleurisy] Relating to, or resembling, pleurisy.
- pleuritis** (ploō-rī'tis) [Gr.] Pleurisy.
- pleurogenous** (ploor'ī-tōj'ē-nūs) [" + *gennan*, to produce] Causing pleurisy.
- pleurocele** (ploō'rō-sēl) [Gr. *pleura*, side, + *kele*, tumor, swelling] 1. Hernia of the lungs or pleura. 2. A serous pleural effusion.
- pleurocentesis** (ploō'rō-sēn-tē'sis) [" + *kentesis*, a piercing] Thoracentesis.
- pleuroclysis** (ploō-rōk'li-sis) [" + *klysis*, a washing] Injection and removal of fluid into the pleural cavity to wash it out.
- pleurodesis** (ploō'rō-dē'sis) [" + *desis*, binding] Production of adhesions between the parietal and visceral pleura; it is usually done surgically or by instillation of drugs or chemicals. This method is used to treat recurrent pneumothorax and malignant pleural effusions.
- pleurodynia** (ploō'rō-dīn'ē-ä) [" + *odynē*, pain] Pain of sharp intensity in the intercostal muscles due to chronic inflammatory changes in the chest fascia; pain of the pleural nerves.
- epidemic p.** Bornholm disease.
- pleurogenic, pleurogenous** (ploō'rō-jēn'ik, ploō-rōj'ēn-ūs) Arising in the pleura.
- pleurography** (ploō-rōg'rā-fē) [" + *graphein*, to write] Radiographical examination of the lungs and pleura.
- pleurohepatitis** (ploō'rō-hēp'ā-tī'tis) [" + *hepatos*, liver, + *itis*, inflammation] Inflammation of the pleura and liver.
- pleurolith** (ploō'rō-lith) [" + *lithos*, stone] A stone between the pleura.
- pleurolysis** (ploō-rōl'ī-sis) [" + *lysis*, dissolution] Loosening of parietal pleura from intrathoracic fascia to facilitate contraction of the lung or artificial pneumothorax.
- pleuropericarditis** (ploō'rō-pēr'ī-kār-dī'tis) [" + " + " + *itis*, inflammation] Pleuritis accompanied by pericarditis.
- pleuropneumonia** (ploō'rō-nū-mō-nē-ä) [" + *pneumon*, lung] Pleurisy accompanied by pneumonia.
- pleurorrhœa** (ploor'ō-rē'ä) [" + *rhoia*, flow] Effusion of fluid into the pleura.
- pleuroscopy** (ploō-rōs'kō-pē) [" + *skopein*, to examine] Inspection of the pleural cavity with an endoscope inserted through an incision into the thorax.
- pleurothotonos** (ploō'rō-thōt'ō-nōs) [Gr. *pleurothen*, from the side, + *tonos*, tension] A tetanic spasm in which the body is arched to one side.
- pleurotomy** (ploō-rōt'ō-mē) [Gr. *pleura*, side, + *tome*, incision] Incision of the pleura.
- pleurotyphoid** (ploō'rō-tī'foyd) [" + *typhos*, fever, + *eidos*, form, shape] Typhoid fever with pleural involvement.
- plexal** (plēk'säl) [L. *plexus*, a braid] Pert. to, or of the nature of, a plexus.
- plexectomy** (plēk-sēk'tō-mē) [" + Gr. *ektome*, excision] Surgical removal of a plexus.
- plexiform** (plēk'sī-form) [" + *forma*, shape] Resembling a network or plexus.
- pleximeter** (plēks-īm'ē-tēr) [Gr. *plexis*, stroke, + *metron*, measure] A device for receiving the blow of the percussion hammer, consisting of a disk that is struck in mediate percussion while being held over the surface of the body. SYN: *plessimeter*; *plexometer*.
- plexitis** (plēk-sī'tis) [L. *plexus*, a braid, + Gr. *itis*, inflammation] Inflammation of a nerve plexus.
- plexometer** (plēk-sōm'ē-tēr) *Pleximeter*.
- plexopathy** (plēks-ōp'ā-thē) A peripheral neuropathy. Any disease of a (peripheral) nerve plexus.
- idiopathic brachial p.** A peripheral neuropathy that affects movement and sensation in the shoulder. Idiopathic brachial plexopathy usually results from brachial nerve entrapment by vigorous exercise. It may cause atrophy of the muscles surrounding the shoulder (the "shoulder girdle"). Nonidiopathic (i.e., readily identifiable) causes of the neuropathy sometimes are found in persons with brachial nerve injury caused by tumors or radiation. SYN: *neuralgic amyotrophy*; *Parsonage-Turner syndrome*; *shoulder girdle syndrome*.
- plexor** (plēks'or) A hammer or other device for striking on the pleximeter in percussion. SYN: *pleссор*.
- plexus** (plēks'ūs) *pl. plexus, plexuses* [L., a braid] A network of nerves or of blood or lymphatic vessels. SEE: *rete*.
- Auerbach's p.** SEE: *Auerbach's plexus*.
- autonomic p.** An extensive network of nerve fibers and neuron cell bodies belonging to the sympathetic or parasympathetic nervous system.
- brachial p.** A network of the anterior branches of the last four cervical and the first thoracic spinal nerves supplying the arm, forearm, and hand.
- cardiac p.** Plexus cardiacus; the nerve plexus at the base of the heart made up of branches of the vagus nerves and sympathetic trunks. Afferent nerves from this plexus provide the nerve supply to the heart.
- cavernous p.** The vascular plexus of a cavernous part of the body. The follow-



ing are included: Of the nose: a venous plexus in the mucosa covering the superior and middle conchae. Of the penis: a nerve plexus at the base of the penis giving rise to large and small cavernous nerves. Of the clitoris: nerve plexus at the base of the clitoris, formed of fibers from the uterovaginal plexus. Of the cavernous sinus: a sympathetic plexus that supplies fibers to the internal carotid artery and its branches within the cranium.

**celiac p.** A sympathetic plexus lying near the origin of the celiac artery.

**cervical p.** A network formed by the first four cervical spinal nerves. It innervates parts of the face, neck, shoulder, and chest, and gives rise to the phrenic nerve to the diaphragm.

**choroid p.** A capillary network located in each of the four ventricles of the brain (two lateral, the third, and the fourth) that produces cerebrospinal fluid by filtration and secretion.

**dental p.** A network of sensory nerve fibers that are distributed to the teeth. The inferior alveolar nerve is distributed to the mandibular teeth; the anterior, middle, and posterior superior alveolar nerves contribute fibers to innervate the maxillary teeth.

**enteric p.** One of two plexuses of nerve fibers and ganglion cells that lie in the wall of the alimentary canal. These are the myenteric (Auerbach's) and submucosal (Meissner's) plexuses.

**lumbar p.** A nerve plexus formed by the ventral branches of the first four lumbar nerves.

**lumbosacral p.** The lumbar plexus and sacral plexus, considered as one.

**myenteric p.** Auerbach's plexus.

**nerve p.** Plexus made of nerve fibers.

**pampiniform p.** In the male, a complicated network of veins lying in the spermatic cord and draining the testis. In the female, a network of veins lying in the mesovarium and draining the ovary.

**prevertebral p.** One of three plexuses of autonomic nerve division that lie in body cavities. These are the cardiac, celiac, and hypogastric (pelvic) plexuses.

**prostatic p.** 1. The veins around the base and neck of the bladder and prostate gland. 2. The nerves from the pelvic plexus to the prostate gland, erectile tissue of the penis, and the seminal vesicles.

**sacral p.** A nerve plexus formed by the ventral branches of the fourth and fifth lumbar nerves and the first four sacral nerves, from which the sciatic nerve originates.

**submucous p.** A ganglionated neural network of the enteric nervous system. It is a collection of small connected neural ganglia found in the gut wall

from the stomach to the internal anal sphincter.

**pliability** (plī'ā-bīl'ī-tē) [O.Fr. *pliant*, bend, + L. *abilis*, able] Capacity of being bent or twisted easily.

**plica** (plī'kā) *pl. plicae* [L.] A fold. SEE: *fold*.

**circular p.** One of the transverse folds of the mucosa and submucosa of the small intestine. Collectively they resemble accordion pleats, do not disappear with distention of the intestine, and increase the surface area for absorption. SYN: *circular fold*.

**lacrimal p.** A mucosal fold at the lower orifice of the nasolacrimal duct.

**semilunar p. of the colon** The transverse fold of mucosa of the large intestine lying between sacculations.

**semilunar p. of the conjunctiva** The mucosal fold at the inner canthus of the eye.

**transverse p. of the rectum** One of the mucosal folds in the rectum.

**pligate** (plī'kāt) [L. *plicatus*] Braided or folded.

**plication** (plī-kā'shūn) [L. *plicare*, to fold] The stitching of folds or tucks in tissue at an organ's walls to reduce its size.

**p. of the stomach** A surgical procedure for obesity supplanted by partial gastric bypass. SEE: *fundoplication*.

**plicotomy** (plī-kōt'ō-mē) [l' + Gr. *toμή*, incision] Section of the posterior fold of the tympanic membrane.

**pliers** (plī'ērz) 1. Commonly, a scissor-action, pointed-jawed tool for bending or cutting metal wires or grasping small objects. 2. In dentistry, a variety of instruments that have been shaped or adapted for special uses such as cutting arch wires or metal clasps, shaping metal crown details, applying cotton pledgets or rolls, carrying metal foils, tying ligatures, and placing or removing matrix bands.

**plinth** (plīnth) [Gr. *plinthos*, tile] A table, seat, or apparatus on which a patient lies or sits while doing remedial exercise.

**PLISSIT model** (plī'sīt) A guideline used to assess and manage sensitive psychosocial issues, among them issues relating to adult sexuality. The PLISSIT method consists of four steps.

1. The practitioner obtains Permission to begin a discussion about sensitive issues.

2. Limited Information is provided to the patient.

3. As trust is gained and the patient becomes receptive, Specific Suggestions are made.

4. Intensive Therapy is offered to those who may require referral to a specialist.

**-ploid** [Gr. *ploos*, fold] Combining form used as a suffix indicating the number

of chromosome pairs of the root word to which it is added.

**ploidy** (ploy'dē) [Gr. *plōos*, a fold, + *eidōs*, form, shape] The number of chromosome sets in a cell (e.g., haploidy, diploidy, and triploidy for one, two, and three sets, respectively, of chromosomes).

**plombage** (plōm-bāzh') [Fr. *plomber*, to plug] A method of collapsing the apex of the lung by stripping the parietal pleura from the chest wall at the site of desired collapse and packing the space between the lung and the chest wall with an inert substance such as small balls made of certain plastic materials. It is infrequent in current practice.

**plototoxin** (plō'tō-tōk'sin) A toxic substance present in catfish, *Plotosus lineatus*.

**plug** (plūg) [MD. *plugge*] **1.** A mass obstructing a hole or intended to close a hole. **2.** A plastic or metallic device for closing the end of an instrument or tube.

**epithelial p.** A mass of epithelial cells temporarily plugging an orifice in the embryo, esp. the nasal openings.

**mucous p.** A mass of cells and mucus that closes the cervical canal of the uterus during pregnancy and between menstrual periods.

**vaginal p.** A closed tube for maintaining patency of the vagina following operation for fistula.

**plugger** A hand- or machine-operated device for condensing amalgam, or gold foil, in the cavity preparation of a tooth.

**automatic p.** A plugger that is run by a machine rather than by hand.

**back-action p.** A plugger with a bent shank so that the pressure applied is back toward the operator.

**foot p.** A plugger having a broad, foot-shaped tip.

**plumbic** (plūm'bik) [L. *plumbicus*, leaden] Pert. to, or containing, lead.

**plumbism** (plūm'bīzm) [L. *plumbum*, lead, + Gr. *-ismos*, condition] Poisoning from lead.

**plumbum** (plūm'būm) [L.] Lead; a bluish-white metal. SEE: *lead*.

**plume** (ploom) A wisp or puff of smoke, esp. one that may rise from a surgical field in which electrocautery or lasers are used to cut, coagulate, or destroy tissue. Surgical plumes may contain carbon monoxide, among other potentially toxic gases.

**Plummer-Vinson syndrome** (plūm'ēr-vīn'sōn) [Henry S. Plummer, U.S. physician, 1874–1937; Porter P. Vinson, U.S. surgeon, 1890–1959] Iron-deficiency anemia, associated with dysphagia, gastric achlorhydria, splenomegaly, and spooning of the nails due to an esophageal web. It occurs most commonly in premenopausal women. Treatment consists of disrupting the web. SEE: *esophageal web*.

**plumper** (plūm'pēr) [Middle Low Ger. *plump*, to fill] A pad for filling out sunken cheeks, sometimes in the form of a flange or extension from artificial dentures.

**pluri-** [L. *plus*, more] Prefix meaning *several*, *more*.

**pluriceptor** (ploo'rī-sēp'tor) [L. *plus*, more, + *ceptor*, a receiver] A receptor that has more than two groups uniting with the complement.

**pluriglandular** (ploo'rī-glānd'ū-lār) [L. + *glandula*, gland] Polyglandular.

**plurigravida** (ploo'rī-grāv'ī-dā) [L. + *gravida*, pregnant] A pregnant woman who has had three or more pregnancies.

**plurilocular** (ploo'rī-lōk'ū-lār) [L. + *loculus*, a cell] Multilocular.

**plurinuclear** (ploor'ī-nū'klē-ār) [L. + *nucleus*, kernel] Having a number of nuclei.

**pluripara** (ploo-rīp'ā-rā) [L. + *parere*, to bring forth, to bear] A woman who has given birth three or more times.

**pluriparity** (ploo'rī-pār'ī-tē) The condition of having three or more pregnancies that have reached a point of viability regardless of the outcome.

**pluripotent, pluripotential** (ploo-rīp'ō-tēnt, ploo'rī-pō-tēn'shāl) [L. + *potentia*, power] **1.** Concerning an embryonic cell that can form different kinds of cells. **2.** Having a number of different actions.

**pluriresistant** (ploor'ī-rē-zīs'tānt) [L. + *resistens*, standing back] Resistant to several drugs, esp. antibiotics.

**plutonium** (ploo-tō'nē-ūm) [Named after the planet Pluto] SYMB: Pu. A radioactive element obtained from neptunium, which in turn is obtained from uranium; atomic weight of the most stable isotope is 244; atomic number 94.

**PLWA** *people living with HIV/AIDS*.

**plyometrics** (plī-ō-mē't'riks) A stretching and shortening exercise technique that combines strength with speed to achieve maximum power in functional movements. This regimen combines eccentric training of muscles with concentric contraction.

**Pm** Symbol for the element promethium.

**PMDD** *premenstrual dysphoric disorder*.

**PML** *progressive multifocal leukoencephalopathy*.

**PMS** *premenstrual syndrome*.

**PMSG** *pregnant mare serum gonadotropin*. SEE: *gonadotropin, human chorionic*.

**PMT** *photomultiplier tube; premenstrual tension*.

**P<sub>mus</sub>** The pressure generated by the respiratory muscles during inspiration or expiration.

**PNA** *peptide nucleic acid*

**PNC** *premature nodal contraction or complex*.

**-pnea** SEE: *pneo-*.

**pneo-, -pnea** (nē'ō) [Gr. *pnein*, to

breathe] Combining forms meaning *breath, breathing*. SEE: *pneumo-*.

**pneum-, pneuma-, pneumato-** [Gr. *pneuma, pneumatos*, air, breath] Combining form meaning *air, gas, respiration*.

**pneumarthrogram** (nū-mār'thrō-grām) [Gr. *pneuma*, air, + *arthron*, joint, + *gramma*, something written] A radiograph of a synovial joint after injection of a radiolucent contrast medium, usually air; an obsolete technique.

**pneumarthrography** (nū'mār-thrōg'rá-fē) [" + " + *graphein*, to write] Radiography of a synovial joint after injection of a radiolucent contrast medium, usually air. SYN: *pneumoarthrography*.

**pneumarthrosis** (nū-mār-thrō'sis) [" + " + *osis*, condition] Accumulation of gas or air in a joint.

**pneumatic** (nū-māt'ik) [Gr. *pneumatikos*, pert. to air] 1. Concerning gas or air. 2. Relating to respiration. 3. Relating to rarefied or compressed air.

**pneumatic antishock garment** ABBR: PASG. Antishock garment.

**pneumatics** (nū-māt'iks) The branch of physics that is concerned with the physical and mechanical properties of gases and air.

**pneumatization** (nū'mā-tī-zā'shūn) The formation of air-filled cavities, usually in bone (e.g., the paranasal sinuses and mastoid sinuses).

**pneumatized** (noo'mū-tīzd, nū') [" ] Filled with air or gas.

**pneumatocardia** (nū'māt-ō-kār'dē-ā) [" + *kardia*, heart] Air or gas in the heart chambers.

**pneumatocele** (nū-māt-ō-sēl) [" + *kele*, tumor, swelling] 1. A hernia of the lung tissue. 2. A swelling containing gas or air, esp. a swelling of the scrotum. SYN: *pneumonocele*.

**extracranial p.** A collection of gas under the scalp, caused by a fracture of the skull that communicates with a paranasal sinus.

**intracranial p.** A collection of gas within the skull. SYN: *pneumocephalus*; *pneumocranium*.

**pneumatology** (nū'mā-tōl'ō-jē) [" + *logos*, word, reason] The science of gases and air and their chemical properties and use in treatment.

**pneumatosis** (nū'mā-tō'sis) [Gr. *pneumatosis*] The presence of air or gas in an abnormal location in the body.

**p. cystoides intestinalis** The presence of thin-walled gas-filled cysts in the intestines. The cause is unknown. The cysts usually disappear but occasionally rupture and cause pneumoperitoneum.

**pneumaturia** (noo'mā-toor'ē-ā) [Gr. *pneuma*, air, + *ouron*, urine] Excretion of urine containing free gas.

**pneumatype** (nū'mā-tīp) [" + *typos*, type] The deposit of moisture on glass

from the breath exhaled through the nostrils with the mouth closed for purpose of comparing the airflow through the nostrils.

**pneumectomy** (nū-mēk'tō-mē) [Gr. *pneumon*, lung, + *ektome*, excision] Excision of all or part of a lung.

**pneumo-, pneumono-** [Gr. *pneumon*, lung] Combining form meaning *air, lung*.

**pneumoarthrography** (nū'mō-ār-thrōg'rá-fē) [" + *arthron*, joint, + *graphein*, to write] Pneumarthrography.

**pneumobilia** (nū'mō-bill'ē-ah) Air or gas within the biliary ducts, a finding associated primarily with cholecystitis that is caused by gas-forming organisms.

**pneumobulbar** (nū'mō-būl'bār) [" + L. *bulbus*, bulbous root] Concerning the lungs and respiratory center in the medulla oblongata of the brain.

**pneumocentesis** (nū'mō-sēn-tē'sis) [" + *kentesis*, a piercing] Paracentesis or surgical puncture of a lung to evacuate a cavity. SYN: *pneumonocentesis*.

**pneumocephalus** (nū'mō-sēf'ā-lūs) [Gr. *pneuma*, air, + *kephale*, head] Intracranial pneumatocele.

**pneumocholecystitis** (nū'mō-kō'lē-sis-tī'tis) [" + *chole*, bile, + *kystis*, bladder, + *itis*, inflammation] Cholecystitis with gas in the gallbladder.

**pneumococcal** (nū'mō-kōk'āl) [" + *kokkos*, berry] Concerning or caused by pneumococci.

**pneumococcemia** (nū'mō-kōk-sē'mē-ā) The presence of pneumococci in the blood.

**pneumococcidal** (nū'mō-kōk-sī'dāl) [" + " + L. *cidus*, killing] Killing pneumococci.

**pneumococcolysis** (nū'mō-kōk-ōl'ī-sis) [" + *kokkos*, berry, + *lysis*, dissolution] Destruction or lysis of pneumococci.

**pneumococcus** (nū'mō-kōk'ūs) *pl.* **pneumococci** [" + *kokkos*, berry] *Streptococcus pneumoniae*.

**pneumocolon** (nū'mō-kō'lōn) [" + *kolon*, colon] Air in the colon. This may be introduced as an aid in radiological diagnosis.

**pneumocoinosis** (nū'mō-kō'nē-ō'sis) [" + *konis*, dust, + *osis*, condition] Any disease of the respiratory tract owing to inhalation of dust particles; an occupational disorder such as that caused by mining or stonemasonry. SYN: *pneumonoconiosis*. SEE: table.

**pneumocranium** (nū'mō-krā'nē-ūm) [" + *kranion*, skull] Intracranial pneumatocele.

**Pneumocystis carinii** (nū'mō-sis'tis kā-rī'nē-ī) SEE: *Pneumocystis jiroveci*.

**Pneumocystis jiroveci** (jīr-ō'vē-sī, sē, chē) An opportunistic fungus that causes lung infections in those with immunosuppressive diseases and condi-

## The Pneumoconioses

Asbestosis*
Black lung disease (coal worker's pneumoconiosis)
Mixed dust pneumoconiosis
Silicosis
Talcosis

\*Asbestosis is currently the most common lung disease caused by the inhalation of mineral dusts

tions. It was formerly called *pneumocystis carinii*. **SEE: ilus.**

**pneumocystography** (nū'mō-sīs-tōg'rā-fē) [Gr. *pneuma*, air, + *kystis*, bladder, + *graphein*, to write] A cystogram done after air has been introduced into the urinary bladder.

**pneumocystosis** (nū'mō-sīs-tō'sīs) *Pneumocystis carinii* pneumonia.

**pneumocyte** (nū'mō-sīt) Either of the two types of cells that form the alveoli of the lung. Type I cells are simple squamous epithelium that permit gas exchange. Type II cells are rounded and produce surfactant.

**pneumoderma** (nū'mō-dēr'mā) [" + *derma*, skin] Subcutaneous emphysema.

**pneumodynamics** (nū'mō-dī-nām'īks) [" + *dynamis*, force] The branch of science dealing with force employed in respiration.

**pneumoempyema** (nū'mō-ēm-pī-ē'mā) [" + *en*, in + *pyon*, pus] Empyema accompanied by an accumulation of gas.

**pneumoencephalitis** (nū'mō-ēn-sēf'ā-līt'is) [" + *enkephalos*, brain, + *itis*, inflammation] Newcastle disease.

**pneumoencephalography** (nū'mō-ēn-sēf'ā-lōg'rā-fē) [" + " + *graphein*, to write] An obsolete term for radiography of the ventricles and subarachnoid spaces of the brain following withdrawal of cerebrospinal fluid and injection of air or gas via lumbar puncture. This technique has been replaced by computed tomography and magnetic resonance imaging.

**pneumogalactocele** (nū'mō-gāl-āk'tō-sēl) [" + *gala*, milk, + *kele*, tumor, swelling] A breast tumor containing milk and gas.

**pneumogastrography** (nū'mō-gās-trōg'rā-fē) [Gr. *pneuma*, air, + *gaster*, stomach, + *graphein*, to write] A radiographical study of the stomach after air has been introduced into it.

**pneumogram** (nū'mō-grām) [" + *gramma*, something written] **1.** A record of respiratory movements. **2.** A radiograph following injection of air.

**pneumograph** (nū'mō-grāf) [" + *graphein*, to write] A device for recording the frequency and intensity of respiration.

**pneumography** (nū-mōg'rā-fē) **1.** An an-

atomical description or illustration of the lung. **2.** The recording of respiratory movements on a graph. **3.** Radiography of a part or organ after injection of air.

**pneumohemopericardium** (nū'mō-hēm'ō-pēr-ī-kār'dē-ūm) [Gr. *pneumon*, lung, + *haima*, blood, + *peri*, around, + *kardia*, heart] The accumulation of air and blood in the pericardium.

**pneumohemothorax** (nū'mō-hēm'ō-thō'rāks) [" + " + *thorax*, chest] Gas or air and blood collected in the pleural cavity.

**pneumohydrometra** (nū'mō-hī'drō-mē'trā) [" + *hydor*, water, + *metra*, uterus] The accumulation of gas and fluid in the uterus.

**pneumohydropericardium** (nū'mō-hī'drō-pēr-ī-kār'dē-ūm) [" + *hydor*, water, + *peri*, around, + *kardia*, heart] Air and fluid accumulated in the pericardium.

**pneumohydrothorax** (nū'mō-hī'drō-thō'rāks) [" + " + *thorax*, chest] Gas or air and fluid in the pleural cavity.

**pneumohypoderma** (nū'mō-hī'pō-dēr'mā) [" + *hypo*, under, + *derma*, skin] Subcutaneous emphysema.

**pneumolith** (nū'mō-līth) [" + *lithos*, stone] A pulmonary stone.

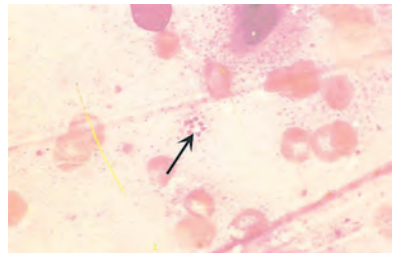
**pneumolithiasis** (nū'mō-līth-ī'ās-īs) [" + " + *-iasis*, condition] Formation of stones in the lungs.

**pneumolysin** (nū-mōl'ī-sīn) A hemolytic toxin produced by pneumococci.

**pneumomalacia** (nū'mō-mā-lā'shē-ā) [" + *malakia*, a softening] Abnormal softening of the lung.

**pneumomassage** (nū'mō-mā-sāzh') [Gr. *pneuma*, air, + *massein*, to knead] Massage of the tympanum with air to cause movement of the ossicles of the inner ear.

**pneumomediastinum** (nū'mō-mē'dē-ās-tī'nūm) [" + L. *mediastinum*, in the middle] The presence of air or gas in the mediastinal tissues, either owing to disease or following injection of air into the area. It is a cause of intense chest pain that worsens with movement.



**PNEUMOCYSTIS JIROVECI** (×1000)

Silver-stained cysts in lung tissue (×400)

**pneumomelanosis** (nū"mō-mēl-ān-ō'sīs) [Gr. *pneumon*, lung, + *melano*, black, + *osis*, condition] Pigmentation of the lung seen in pneumoconiosis. SYN: *pneumonomelanosis*.

**pneumometer** (nū-mōm'ēt-ēr) [Gr. *pneuma*, air, + *metron*, measure] Spirometer.

**pneumomycosis** (nū"mō-mī-kō'sīs) [Gr. *pneumon*, lung, + *mykes*, fungus, + *osis*, condition] A fungal pulmonary disease. SYN: *pneumonomycosis*.

**pneumomyelography** (nū"mō-mī-ēl-g'rā-fē) [Gr. *pneuma*, air + *myelos*, marrow, + *graphein*, to write] An obsolete term for a radiographical study of the spinal canal following injection of air or other gas.

**pneumectomy** (nū"mōn-ēk'tō-mē) [Gr. *pneumon*, lung, + *ektome*, excision] Pneumectomy.

**pneumonia** (nū-mō'nē-ā) [Gr.] Inflammation of the lungs, usually due to infection with bacteria, viruses, or other pathogenic organisms. Clinically, the term "pneumonia" is used to indicate an infectious disease. Pulmonary inflammation due to other causes is generally called "pneumonitis." In the U.S., about 4,500,000 persons contract pneumonia each year. The disease is the sixth most common cause of death in the U.S. and the most common cause of death due to infectious disease. Pneumonia occurs most commonly in weakened individuals, such as those with cancer, heart or lung disease, immunosuppressive illnesses, diabetes mellitus, cirrhosis, malnutrition, and renal failure, but virulent pathogens can cause pneumonia in healthy persons as well. Smoking, general anesthesia, and endotracheal intubation each increase the risk for developing pneumonia by inhibiting airway defenses and helping disease-causing germs reach the alveoli of the lungs. SEE: *aspiration*; *pleural effusion*; *empyema*; *pleurisy*; *pneumonitis*; *tuberculosis* (and names of lung pathogens); *Nursing Diagnoses Appendix*.

**ETIOLOGY:** Pneumonias are categorized by site and by causative agent. Lobar pneumonia affects most of a single lobe; bronchopneumonia involves smaller lung areas in several lobes; interstitial pneumonia affects tissues surrounding the alveoli and bronchi of the lung. Atypical pneumonias diffusely affect lung tissues rather than anatomical lobes or lobules. Community-acquired pneumonia is a lung infection that occurs in noninstitutionalized people, typically involving organisms such as viruses, *Streptococcus pneumoniae*, *Klebsiella pneumoniae*, *Mycoplasma pneumoniae*, *Legionella pneumophila*, *Chlamydia pneumoniae*, *Moraxella* species, or *Pneumocystis carinii*. Nosocomial pneumonia develops in patients in

the hospital or nursing home; this type is most likely to be caused by gram-negative rods or staphylococcal species. Aspiration pneumonias result from the inhalation of oropharyngeal microorganisms and often involve anaerobic organisms. Pneumonias in immunocompromised patients sometimes are caused by *Pneumocystis jiroveci* or by fungal species such as *Aspergillus* or *Candida*. Some fungal pneumonias occur in specific geographical regions of the U.S. For example, histoplasmosis is common in the Ohio River Valley, and coccidioidomycosis is found in the San Joaquin River Valley of southern California. Viral pneumonias may be caused by influenza, varicella-zoster, herpes, or adenoviruses, among others.

**SYMPTOMS:** Most patients with pneumonia have cough, shortness of breath, and fever, although these symptoms are not universal. Bacterial pneumonias are marked by abrupt onset, with high fevers, shaking chills, pleuritic chest pain, and prostration. Patients with atypical pneumonias usually have lower temperatures and nonproductive coughs and appear less ill.

**PREVENTION:** Pneumococcal vaccine effectively prevents many forms of streptococcal pneumonia; this vaccine is recommended for persons over age 65; those with chronic respiratory, cardiac, or neuromuscular diseases; and patients with diabetes mellitus or renal failure, among others.

**TREATMENT:** Treatment is based on the clinical presentation (e.g., community-acquired versus nosocomial), results of the Gram stain of sputum specimens, the radiographical appearance of the pneumonia, the degree of respiratory impairment, and the results of cultures. Many patients hospitalized with pneumonia require supplemental oxygen and analgesics (pain relievers). Initial antibiotic treatments for pneumonia should be given without delay and typically involve powerful, broad-spectrum drugs. The antibiotic used for subsequent therapy is guided by the results of cultured specimens taken on presentation.

**PATIENT CARE:** A large percentage of patients with pneumonia are not admitted to hospitals, but are treated with antibiotics given on an outpatient basis. However, older adults, people with serious chronic diseases, and those with evidence of organ dysfunction, poor oxygenation, or acute decompensation may need hospitalization to reduce the risk of injury or death. Supportive care is provided to the patient to remove secretions and improve gas exchange. Such care includes position changes, deep breathing and coughing exercises, incentive spirometry, active and passive



limb exercises, and assistance with self-care. Respiratory status is monitored by listening to the chest for crackles and/or wheezing, performing oximetry on a regular basis, and, when patients are failing, performing arterial blood gas studies. Supplemental oxygen is usually prescribed to maintain an oxygen saturation of > 92%. The patient is assessed for signs and symptoms of respiratory failure, sepsis, and shock. Mechanical ventilation is required in patients with respiratory failure. Analgesics are provided as prescribed to manage pain and discomfort and encourage good pulmonary toilet. A large percentage of patients receive care to remove secretions and to improve gas exchange. Such care includes position changes, deep-breathing, and coughing exercises. The patient is encouraged to verbalize concerns; diagnostic studies and therapeutic measures are explained, and the patient is taught about the importance of follow-up care. Outpatient therapy of community-acquired pneumonia can be recommended for selected patients who are young, otherwise healthy, and not hypoxic, hypotensive, hypothermic, or in renal failure. Activities are scheduled to allow for plenty of rest. The patient is taught hand hygiene, and encouraged to wash hands with soap and water or use an alcohol-based hand wipe entirely over both hands after blowing the nose, coughing, using the bathroom, or eating or drinking. Only disposable tissues are used for sneezing and coughing, used tissues deposited in a lined bag taped to the bedside, and these disposed of frequently according to agency policy. Unless otherwise restricted, the patient should drink eight 12-ounce glasses of water daily to help thin and loosen mucous secretions. Each patient's meal preferences and restrictions are discussed to plan a diet that ensures adequate high-caloric intake. Emotional support is provided, and all procedures and treatments are explained. The patient who smokes is taught the relationship between smoking and lung diseases (including the increased risk of respiratory infections) and referred for support group assistance with quitting as needed. Pneumonia prevention is aided by encouraging individuals to avoid indiscriminate antibiotic use, get pneumonia and influenza vaccinations, perform deep-breathing and coughing exercises when confined to bed and after surgery, and ambulate early after surgery. Aspiration pneumonia is prevented in tube-fed patients by correct positioning and slow, low volume feedings. Chronically ill and debilitated individuals in nursing homes should have swallowing function assessed as necessary, with caregivers taught correct

feeding techniques to prevent aspiration.

**abortive p.** Mild pneumonia with a brief course.

**acute lobar p.** Lobar pneumonia.

**p. alba** A pneumonia seen in still-born infants; it is caused by congenital syphilis.

**aspiration p.** Pneumonia caused by inhalation of gastric contents, food, or other substances. A frequent cause is loss of the gag reflex in patients with central nervous system depression or damage or alcoholic intoxication with stupor and vomiting. This condition also occurs in newborns who inhale infected amniotic fluid, meconium, or vaginal secretions during delivery.

**atypical p.** Pneumonia caused by a virus or *Mycoplasma pneumoniae*. The symptoms are low-grade fever, nonproductive cough, pharyngitis, myalgia, and minimal adventitious lung sounds.

**bacterial p.** Pneumonia caused by bacteria such as streptococcus, *Staphylococcus aureus*, *Klebsiella*, or coliforms.

**chlamydial p.** An atypical pneumonia caused by *Chlamydia* species, characterized clinically by cough, low-grade fever, sore throat, and malaise. A chest x-ray taken during the illness is more likely to show diffuse lung involvement than a lobar pneumonia.

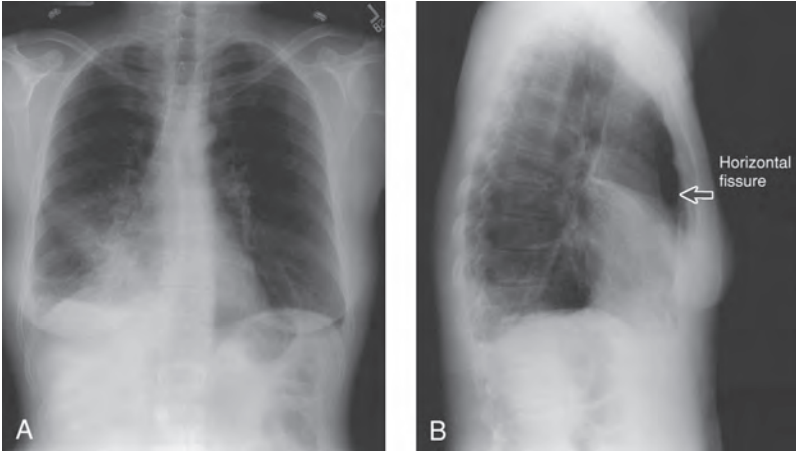
**community-acquired p.** Pneumonia occurring in outpatients, often caused by infection with streptococcus, *Haemophilus influenzae*, *Staphylococcus aureus*, and atypical organisms such as *Legionella* species. Mortality is approximately 15% but depends on many host and pathogen features.

**desquamative interstitial p.** Pneumonia of unknown cause, accompanied by cellular infiltration or fibrosis in the pulmonary interstitium. Progressive dyspnea and a nonproductive cough are symptoms characterizing this disease. Clubbing of the fingers is a common finding. Diffusion of oxygen and carbon dioxide is abnormal. Diagnosis is made by lung biopsy. The condition is treated by corticosteroids.

**double p.** Pneumonia that involves both lungs or two lobes.

**embolic p.** Pneumonia following embolization of a pulmonary blood vessel.

**eosinophilic p.** Infiltration of the lung by eosinophils, typically found in patients with peripheral eosinophilia. The cause is usually unknown; occasionally, the condition responds to the administration of corticosteroids. In some cases, a specific underlying cause is found, such as the recent initiation of cigarette smoking or an allergic drug reaction. Infection with some parasites or fungi also can trigger the disease. SYN: *pulmonary infiltration with eosinophilia*; *PIE syndrome*.



### LOBAR PNEUMONIA

(A) The right heart border is obscured by the infection, (B) Lateral view shows dense (white) infiltrate sharply defined by horizontal fissure (Courtesy of Harvey Hatch, MD, Curry General Hospital)

**fibrous p.** Pneumonia followed by formation of scar tissue.

**Friedländer's p.** SEE: *Friedländer's pneumonia*.

**gangrenous p.** Pulmonary gangrene.

**giant cell p.** An interstitial pneumonitis of infancy and childhood. The lung tissue contains multinucleated giant cells. The disease often occurs in connection with measles.

**hypostatic p.** Pneumonia occurring in elderly or bed-ridden patients who remain constantly in the same position. Ventilation is greatest in dependent areas; remaining in one position causes hypoventilation in many areas, causing alveolar collapse (atelectasis) and creating a pulmonary environment that supports the growth of bacteria or other organisms. Development of this condition is prevented by having the patient change positions and take deep breaths to inflate peripheral alveoli.

**PATIENT CARE:** Prevention is the most important factor, esp. in older and immobile persons. Patients should be moved and turned frequently at least every 1 to 2 hr. The nurse and respiratory therapist should monitor respiratory status by frequently auscultating for crackles, gurgles, and wheezes, and encourage the patient to engage in active movement and to perform deep-breathing and coughing exercises frequently and regularly. Incentive spirometry may prove useful in patients who need added encouragement to deep breathe periodically.

**intrauterine p.** Pneumonia contracted in utero.

**Legionella p.** Legionnaires' disease.

**lipoid p.** Damage to lung tissue that results from aspiration of oils. It may occur repeatedly in patients with impaired swallowing mechanisms or in persons affected by esophageal disorders, such as esophageal carcinoma, achalasia, or scleroderma. Mineral oils and cooking oils often are responsible. Most cases resolve spontaneously, but corticosteroids sometimes are used as treatment to reduce inflammatory changes. Distinguishing lipoid pneumonia from bacterial pneumonia may require endoscopy.

**lobar p.** Pneumonia infecting one or more lobes of the lung, usually caused by *Streptococcus pneumoniae*. The pathologic changes are, in order, congestion; redness and firmness due to exudate and red blood cells in the alveoli; and, finally, gray hepatization as the exudate degenerates and is absorbed. SYN: *acute lobar p.* SEE: *illus.*

**neonatal p.** Lung infection occurring in the first few days of life due to uterine exposure to infectious microorganisms or to infection during or immediately after birth. Common causes include viruses (e.g., herpes simplex) and bacteria (e.g., group B streptococcus, *Chlamydia*, *Escherichia coli*, *Listeria*).

**nosocomial p.** Pneumonia occurring after 48 hours of confinement in a hospital, intensive care unit, or nursing home. It is often the result of infection with gram-negative pathogens or multiply drug-resistant bacteria.

**pneumococcal p.** The most common form of pneumonia in the U.S., affecting

about half a million people each year. It often begins with hard-shaking chills and may be fatal, esp. in the elderly or those with underlying diseases. It usually strikes smokers, people with underlying lung diseases, those recently infected with influenza or those with sickle-cell anemia, chronic or heavy alcohol use, or cirrhosis.

**SYMPTOMS:** Fevers, body-shaking chills, productive cough, pleurisy, prostration, and sweating.

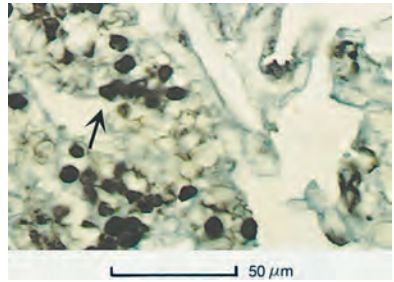
**TREATMENT:** Penicillin may be used when the pneumococcus is sensitive to this agent, but the incidence of penicillin resistance in pneumococci is rapidly growing. Third-generation cephalosporins, erythromycin, vancomycin, and linezolid, are alternative agents.

**PATIENT CARE:** Vaccination provides passive immunity against many serotypes of pneumococcal pneumonia. People over the age of 65 or individuals with heart, lung, liver, kidney, or immunosuppressive diseases should be immunized as should infants under the age of two years.

***Pneumocystis carinii* p.** ABBR: PCP. A subacute opportunistic infection marked by fever, nonproductive cough, tachypnea, dyspnea, and hypoxemia. It is caused by *Pneumocystis carinii*, the former name of *Pneumocystis jiroveci*, an organism formerly thought to be a protozoan but now generally accepted as a fungus. The disease is seen principally in immunosuppressed patients, such as persons with the acquired immunodeficiency syndrome (AIDS) or those who have received an organ transplant and immunosuppressant drugs. Without treatment, the progressive respiratory failure that the infection causes is ultimately fatal.

**DIAGNOSIS:** The disease should be suspected in patients with human immunodeficiency virus infection or other risk factors for the disease who present with cough and shortness of breath. Chest x-ray examination may reveal diffuse interstitial infiltrates, upper lobe disease, spontaneous pneumothorax, or cystic lung disease. The diagnosis is confirmed with special stains of sputum, bronchial washings, or lung biopsy specimens. **SEE: illus.**

**TREATMENT:** Oral trimethoprim-sulfamethoxazole effectively protects against PCP, and is also the drug of choice for active infection. Other drugs that are active against PCP include pentamidine, trimethoprim in combination with dapsone, and atovaquone. Corticosteroids are used as adjunctive therapy when treating markedly hypoxic patients (e.g., those who present with an alveolar-arterial oxygen gradient of more than 35 mm Hg). The introduction of highly active antiretroviral drug cock-



### PNEUMOCYSTIS CARINII PNEUMONIA

Silver-stained cysts in lung tissue ( $\times 400$ )

tails for AIDS patients has markedly reduced the incidence of PCP.

**secondary p.** Pneumonia that occurs in connection with a specific systemic disease such as typhoid, diphtheria, or plague.

**tuberculous p.** Pneumonia caused by *Mycobacterium tuberculosis*. **SEE: tuberculosis.**

**tularemia p.** Pneumonia caused by *Francisella tularensis*. It may be primary or associated with tularemia.

**ventilator-associated p.** In patients receiving mechanical ventilation, a new and persistent infiltrate seen on chest x-ray associated with fever, elevated or depressed white blood cell counts, and sputum that is either purulent or full of disease-causing bacteria.

**viral p.** Any infections of the lower respiratory tract (the lungs, bronchioles, and trachea) caused by viral species such as adenovirus, coronavirus, herpesviruses, influenza viruses, and respiratory syncytial viruses. Viral pneumonias may range from mild respiratory infections (with nonproductive cough and low-grade fevers) to life-threatening and highly contagious illnesses (such as SARS). **SEE: bronchitis; bronchiolitis.**

**wool sorter's p.** Pulmonary anthrax.

**pneumonic** (nū-mōn'ik) [Gr. *pneumon*, lung] Concerning the lungs or pneumonia.

**pneumonitis** (nū'mō-nī'tis) [n + *itis*, inflammation] Inflammation of the lung, usually due to hypersensitivity (allergy), radiation exposure, aspiration, viral infection, or autoimmune illnesses, such as systemic lupus erythematosus.

**hypersensitivity p.** Immunologically induced inflammation of the lungs of a susceptible host caused by repeated inhalation of a variety of substances including organic dusts. Included are molds and other fungi from sources such as cheese, vegetables, mushrooms, flour, mushroom compost, bark of trees, detergents, and contaminated humidity-

fication systems. In the acute stage, patients may present with cough, fever, chills, malaise, and shortness of breath. In the subacute and chronic forms, the onset of symptoms is gradual and prolonged. Treatment includes identifying and avoiding causative agents.

**mycoplasma p.** A form of atypical pneumonia caused by *Mycoplasma pneumoniae*.

**pneumococcal p.** Pneumonia in which the causative agent is pneumococci. SEE: *Streptococcus pneumoniae*.

**pneumo-** [Gr. *pneumon*, lung] SEE: *pneumo-*.

**pneumocoele** (nū-mōn'ō-sēl) [l' + *kele*, tumor, swelling] Pneumatocele.

**pneumocentesis** (nū-mō'nō-sēntē'sis) [l' + *kentesis*, a piercing] Pneumocentesis.

**pneumococcosis** (noo'mā-nō-kō'nē-ō'sis) [l' + *konis*, dust, + *osis*, condition] Pneumococcosis.

**pneumocyte** (nū-mō'nō-sīt) Either a type I or a type II alveolar cell of the lungs.

**pneumolysis** (nū'mō-nōl'ī-sis) [l' + *lysis*, dissolution] The loosening and separation of an adherent lung from the costal pleura.

**extrapleural p.** Separation of the parietal pleura from the chest wall. SEE: *apicolysis*.

**intrapleural p.** Separation of adhering visceral and parietal layers of pleura.

**pneumonmelanosis** (nū'mō-nō-mēl'ān-sis) [l' + *melano*, black, + *osis*, condition] Pneumonmelanosis.

**pneumonomycosis** (nū-mōn'ō-mī-kō'sis) [l' + *mykes*, fungus, + *osis*, condition] Pneumonomycosis.

**pneumopathy** (nū'mō-nōp'āth-ē) [l' + *pathos*, disease, suffering] Any diseased condition of the lung.

**pneumoperitonitis** (nū'mō-nō-pēr'ī-tō-nī'tis) [l' + *peritonaion*, peritoneum, + *itis*, inflammation] Pneumoperitonitis.

**pneumopleuritis** (nū-mō'nō-ploo-rī'tis) [Gr. *pneumon*, lung, + *pleura*, side, + *itis*, inflammation] Pneumopleuritis.

**pneumonorrhapy** (nū'mō-nor'ā-fē) [l' + *rhaphe*, seam, ridge] Suture of a lung.

**pneumotherapy** (noo-mōn'ā-thēr'ā-pē, nū-) Pneumotherapy.

**pneumotomy** (nū-mō-nōt'ō-mē) [l' + *tome*, incision] Incision into the lung. SYN: *pneumotomy*.

**pneumopericardium** (nū'mō-pēr-ī-kār'dē-ūm) [Gr. *pneuma*, air, + *peri*, around, + *kardia*, heart] Air or gas in the pericardial sac; caused by trauma or pathological communication between the esophagus, stomach, or lungs and the pericardium. On examination one finds unusual metallic heart sounds and tympany over the precordial area.

**pneumoperitoneum** (nū'mō-pēr-ī-tō-nē'ūm) [l' + *peritonaion*, peritoneum]

1. A condition in which air or gas collects in the peritoneal cavity. This may occur catastrophically when internal organs rupture. 2. Air or gas that has been injected into the peritoneal cavity to facilitate laparoscopy.

**pneumoperitonitis** (nū'mō-pēr-ī-tō-nī'tis) [l' + *peritonaion*, peritoneum, + *itis*, inflammation] Peritonitis with gas accumulation. SYN: *pneumoperitonitis*.

**pneumopexy** (nū'mō-pēks'ē) [Gr. *pneumon*, lung, + *pexis*, fixation] Pneumopexy.

**pneumopleuritis** (nū'mō-ploo-rī'tis) [l' + *pleura*, a side, + *itis*, inflammation] Inflammation of the lungs and pleura.

**pneumopypericardium** (nū'mō-pī'ō-pēr-ī-kār'dē-ūm) [l' + *pyon*, pus, + *peri*, around, + *kardia*, heart] Air, gas, and pus collected in the pericardium.

**pneumopythorax** (nū'mō-pī'ō-thō'rāks) [l' + " + *thorax*, chest] Air and pus collected in the pleural cavity.

**pneumoretroperitoneum** (nū'mō-rēt'rō-pēr-ī-tō-nē'ūm) [l' + *L. retro*, backwards, + Gr. *peritonaion*, peritoneum] Air or gas in the retroperitoneal space.

**pneumorrhachis** (nū'mō-rā'kīs) [Gr. *pneumon*, lung, + *rhachis*, spine] The abnormal finding of gas within the spinal canal, e.g., after trauma.

**pneumorrhagia** (nū'mō-rā'jē-ā) [Gr. *pneumon*, lung, + *rhegnynai*, to burst forth] Lung hemorrhage. SEE: *hemoptysis*.

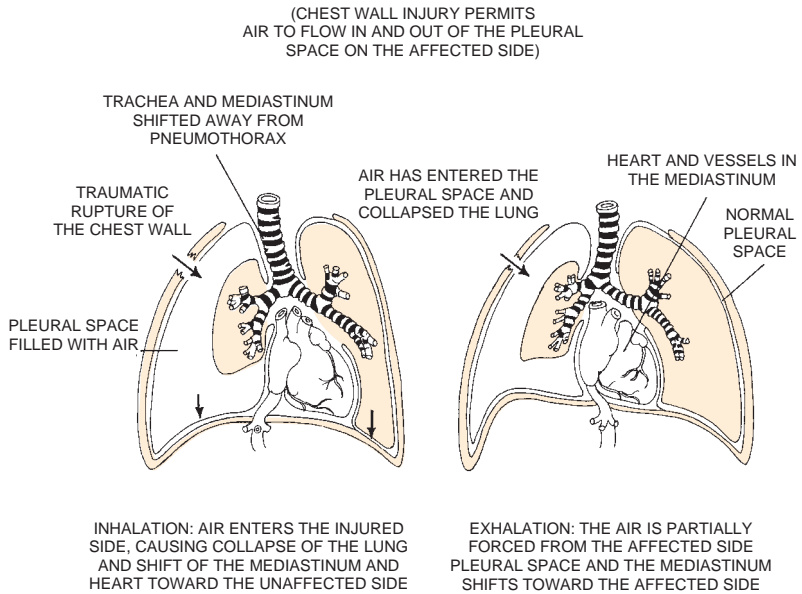
**pneumoserothorax** (nū'mō-sē-rō-thō'rāks) [Gr. *pneuma*, air, + *L. serum*, whey, + Gr. *thorax*, chest] Air or gas and serum collected in the pleural cavity.

**pneumosilicosis** (nū'mō-sil'ī-kō'sis) [Gr. *pneumon*, lung, + *L. silix*, flint, + Gr. *osis*, condition] Silicosis.

**pneumotaxic** (nū'mō-tāk'sik) [l' + *taxis*, arrangement] Concerning the regulation of breathing.

**pneumothorax** (nū-mō-thō'rāks) [l' + *thorax*, chest] A collection of air or gas in the pleural cavity. The gas enters as the result of a perforation through the chest wall (e.g., due to traumatic or iatrogenic injury) or the pleura (e.g., from the rupture of an emphysematous bleb or superficial lung abscess). Some tall slender young men and women suffer repeated episodes of spontaneous pneumothorax. SEE: *illius*; *Nursing Diagnoses Appendix*.

**SYMPTOMS:** The onset is sudden, usually with a severe sharp pain in the side of the chest, and dyspnea. The physical signs are those of a distended unilateral chest, increased resonance, decrease in or absence of breath sounds,



### OPEN PNEUMOTHORAX

and, if fluid is present, a splashing sound on succussion (or shaking) of the patient. Patients often report chest pain is worsened by coughing, deep breathing, or movement.

**DIAGNOSIS:** Chest x-rays confirm the diagnosis, revealing air in the pleural space, often identified as a line seen outlining a partially collapsed lung. A shift of the mediastinum toward one side of the chest or the other may be seen in tension pneumothorax. SEE: *tension p.*

**TREATMENT:** Treatment varies according to type and amount of lung collapse. Traumatic or iatrogenic pneumothorax requires chest tube insertion to closed (water-sealed) chest drainage for lung re-expansion. Surgical repair also may be required. Spontaneous pneumothorax may be treated conservatively with bedrest if there is no sign of increased pleural pressure, less than 15% lung collapse, no dyspnea or other indication of physiological compromise. If the patient's condition worsens or if more than 15% of the lung is collapsed, a thoracostomy tube may be placed anteriorly in the second intercostal space and attached to a Heimlich flutter valve or chest-drainage unit. If fluid is present in the pleural space, a thoracostomy tube is placed in the fourth, fifth, or sixth intercostal space more posteriorly to drain it.

**PATIENT CARE:** The patient's vital signs, chest expansion, oximetry and/or blood gases are monitored and oxygen

administered to prevent hypoxia. The purpose and process for placing a chest tube are explained to the patient to allay anxiety and foster cooperation with the procedure. After the surgeon prepares and drapes the patient in sterile fashion, and administers local anesthesia, a small incision is made. A thoracostomy tube is attached to a water-sealed drainage device. The patient is placed in the semi-Fowler position to promote drainage, comfort, and ease of breathing. Vital signs and ventilatory status are monitored. Once the tube is placed, deep breathing (incentive spirometry) and coughing are encouraged (at least hourly) to promote lung expansion, with prescribed analgesics provided to control pain and discomfort (due in part to the tube itself). Ambulation is encouraged to facilitate full inspiration and enhance lung expansion. The thoracostomy tube site is kept sealed, generally by using a purse-string suture and occlusive dressing. Care is taken to avoid tension on the tubing, and all connections also are sealed to avoid air leaks. If the tube is accidentally dislodged, an occlusive (petroleum gauze) dressing is placed over the opening immediately to prevent lung collapse. When chest x-ray demonstrates adequate lung re-expansion that remains stable without suction, the thoracostomy tube is carefully removed, and the incision is covered with an occlusive dressing. The importance of follow-up examination, x-ray, and any



needed care is explained prior to discharge. Patients who smoke are urged to stop smoking and exercise is increased gradually as determined by follow-up evaluation.

**artificial p.** A pneumothorax induced intentionally by artificial means, used to treat pulmonary tuberculosis or pneumonia. Pneumothorax allows the diseased lung to rest temporarily. The lung collapses when the air enters the pleural space.

Scattered adhesions may afford only a partial collapse. Effusion may occur in about one third of the cases. Hazards include pain, infection, and respiratory distress.

**extrapleural p.** The formation of a pneumothorax by introducing air into the space between the pleura and the inside of the rib cage.

**open p.** A pneumothorax in which the pleural cavity is exposed to the atmosphere through an open wound in the chest wall.

**spontaneous p.** The spontaneous entrance of air into the pleural cavity. The pressure may collapse the lung and displace the mediastinum away from the side of the lesion.

**SYMPTOMS:** Although some patients with pneumothorax have few symptoms, most people who come to clinical attention report the sudden onset of left- or right-sided chest pain, often accompanied by shortness of breath. Breath sounds may be absent on the affected side, or the lung percussion note on that side may reveal increased resonance.

**tension p.** A type of pneumothorax in which air can enter the pleural space but cannot escape via the route of entry. This leads to increased pressure in the pleural space, resulting in lung collapse. The increase in pressure also compresses the heart and vena cavae, which impairs circulation.

**PATIENT CARE:** The patient is assessed for evidence of respiratory failure or the need for immediate intervention. The development of tension pneumothorax is a medical emergency; if it is not promptly relieved, the patient will experience inadequate cardiac output and hypoxemia (and may die). To prevent rapid decompensation, a large-bore needle is inserted emergently into the pleural space at the second intercostal space, mid-clavicular line (needle decompression, needle thoracotomy). This temporizing procedure must be followed by thoracostomy tube placement and water-sealed chest drainage unit.

**pneumotomy** (nū-mōt'ō-mē) [Gr. *pneumon*, lung, + *tome*, incision] Pneumotomy.

**pneumotyphus** (nū'mō-tī'fūs) [" + *typhos*, fever] 1. Typhoid fever with

pneumonia at onset. 2. The development of pneumonia during typhoid fever.

**Pneumovax 23** (noo'mō-vāks") Pneumococcal vaccine, polyvalent.

**pneumoventricle** (nū'mō-vēn'trī-k'l) [" + L. *ventriculus*, little belly] Air accumulation in the cerebral ventricles.

**Po** Symbol for the element polonium.

**PO<sub>2</sub>** *partial pressure of oxygen.*

**p.o.** L. *per os*, by mouth.

**pock** (pök) [AS. *poc*, pustule] A pustule of an eruptive fever, esp. of smallpox.

**pocket** (pök'ēt) [ME. *poket*, pouch] A saclike cavity.

**gingival p.** Periodontal pocket.

**periodontal p.** A pathologically deepened gingival sulcus enlarged beyond normal limits as a result of the destructive effects of bacterial plaque; the space bordered on one side by the tooth and the other side by ulcerated sulcular epithelium. The pocket contains inflammatory cells and destructive enzymes released by bacteria, and is surrounded by diseased gum tissue. SYN: *gingival p.*

**pocket reduction** A surgical procedure to eliminate deep periodontal spaces that have formed around teeth. Periodontal pockets are colonized and/or infected by numerous disease-causing bacteria. The periodontist peels away and surgically removes infected gum tissue surrounding the tooth, smoothing uneven dental surfaces and removing tartar before suturing healthy gum back onto the affected tooth.

**pockmarked** (pök-märkd) Pitted or marked with scars from healed pustules, esp. those due to smallpox.

**podagra** (pō-däg'rā) [Gr. *podos*, foot, + *agra*, seizure] Gout, esp. of the joints of the great toe.

**podalgia** (pō-dāl'jē-ā) [" + *algos*, pain] Pain in the feet.

**podalic** (pō-dāl'ik) [Gr. *podos*, foot] Pert. to the feet.

**podcast** A World Wide Web feed of audio or video files for playing on mobile devices such as MP3 players at a later time and at a listener's or viewer's convenience.

**podencephalus** (pōd'ēn-sēf'ā-lūs) [" + *enkephalos*, brain] A deformed fetus in whom most of the brain is outside the skull and is attached by a thin pedicle.

**podiatrist** (pō-dī'ā-trīst") [" + *iatreia*, treatment] A health professional responsible for the examination, diagnosis, prevention, treatment, and care of conditions and functions of the human foot. A podiatrist performs surgical procedures and prescribes corrective devices, drugs, and physical therapy as legally authorized in the state in which he or she is practicing. SYN: *chiropodist*.

**podiatry** (pō-dī'ā-trē) The diagnosis, treatment, and prevention of conditions of human feet. SYN: *chiropody*.

**podium** (pō'dē-ūm) [Gr. *podos*, foot] A footlike projection.

**pod-**, **pod-** [Gr. *pous*, *podos*, foot] Combining form meaning *foot*.

**podobromidrosis** (pōd'ō-brō'mī-drō'sīs) [" + *bromos*, stench, + *hidros*, sweat] Offensive perspiration of the feet.

**podocyte** (pōd'ō-sīt) [" + *kytos*, cell] A special epithelial cell with numerous footplates (pedicels). These form the inner layer of Bowman's capsule of the renal corpuscle and have spaces for the passage of renal filtrate from the glomerulus.

**podosome** (pōd'ā-sōm") [" + Gr. *soma*, body] A cellular structure composed of actin and integrins that is used by mesenchymal cells to hold them to each other or to neighboring cells. Podosomes are found, e.g., on osteoclasts attached to bone.

**POEMS syndrome** (pō'īmz) [Acronym fr. *polyneuropathy*, *organomegaly*, *endocrinopathy*, *monoclonal gammopathy*, and *skin changes*] A rare multisystem disease characterized by polyneuropathy, organomegaly, endocrinopathy, monoclonal gammopathy, and skin changes. It often presents with osteosclerotic bone lesions associated with plasma cell dyscrasia. The cause is unknown. SYN: *Crow-Fukase syndrome*.

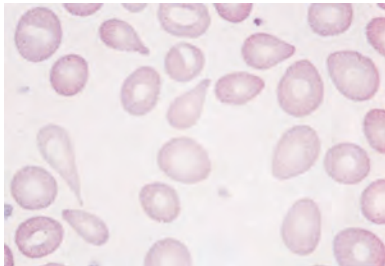
**pogoniasis** (pō'gō-nī'ā-sīs) [Gr. *pogon*, beard, + *-iasis*, disorder] 1. Excessive growth of the beard. 2. Growth of a beard in a woman.

**Pogosta disease** (pō-gōs'tā) [*Pogosta*, a town in Finland] An infectious disease caused by Sindbis virus. Its primary symptoms are fever, rash, and arthritis. The disease is found primarily in northern European countries (e.g., Finland).

**-poiesis** [Gr.] Combining form used as a suffix meaning *formation*, *production*.

**poikilo-** Combining form meaning *irregular*, *varied*.

**poikilocyte** (pōy-kīl-ō-sīt) A teardrop or pear-shaped red blood cell, seen in myelofibrosis and certain anemias. SEE: *il-lus*.



POIKILOCYTES (×640)

**poikilocytosis** (poy'kīl-ō-sī-tō'sīs) [" + *-osis*, condition] A term used to de-

scribe variations in shape of red blood cells (e.g., elliptocytes, spherocytes, dacryocytes, sickle cells, schizocytes, echinocytes, and acanthocytes).

**poikilodontosis** (poy'kī-lō-dēn-tō'sīs) [" + L. *dens*, tooth, + Gr. *osis*, condition] Mottling of the teeth usually caused by an excess of fluoride in the drinking water.

**poikiloderma** (poy-kīl-ō-dēr'mā) [" + *derma*, skin] A skin disorder characterized by pigmentation, telangiectasia, purpura, pruritus, and atrophy.

**p. atrophicans vasculare** A generalized dermatitis of unknown cause. It is symmetrical and occurs almost exclusively in adults. There is widespread telangiectasia, pigmentation, and atrophy of the skin.

**p. of Civatte** Reticulated pigmentation and telangiectasia of the sides of the face and neck; seen quite commonly in middle-aged women.

**poikilonymy** (poy'kī-lōn'ī-mē) [" + *onoma*, name] The use of terms from several nomenclature systems.

**poikilotherm** (poy-kīl'ō-thēr'm) [" + *therme*, heat] Ectotherm.

**poikilothermal** (poy'kī-lō-thēr'māl) Concerning poikilothermy.

**poikilothermy** (poy'kī-lō-thēr'mē) The condition of having the temperature of the organism or animal match the temperature of the environment. Reptiles have this property. SEE: *ectotherm*; *endotherm*.

**poikilothrombocyte** (poy-kīl'ō-thrōm'bō-sīt) [" + *thrombos*, clot, + *kytos*, cell] An abnormally shaped platelet.

**point** (poynt) [O.Fr., a prick, a dot] 1. The sharp end of any object. 2. The stage at which the surface of an abscess is about to rupture. 3. A minute spot. 4. A position in space, time, or degree.

**absorbent p.** A cone of paper used in drying or in keeping liquid medicines in a root canal of a tooth.

**acupuncture p.** Any anatomical location used in acupuncture to relieve symptoms or treat disease.

**auricular p.** The center of the external orifice of the auditory canal.

**boiling p.** The temperature at which a liquid boils. The boiling point of a liquid varies according to the chemicals present in it. Under ordinary conditions water boils at 212°F (100°C) at sea level. To kill most vegetative forms of microorganisms, water should be boiled for 30 min.

**Capuron's p.** One of four fixed points in the pelvic inlet, the two iliopectineal eminences and the two sacroiliac joints. SYN: *cardinal p.* (2).

**cardinal p.** 1. One of six points determining the direction of light rays emerging from and entering the eye. SEE: *nodal p.*; *principal p.* 2. Capuron's point.

**cold rigor p.** The temperature at which cell activity ceases.

**contact p.** The point on a tooth that touches an opposed tooth.

**convergence p.** 1. The point to which rays of light converge. 2. The closest point to the patient on which the eyes can converge as the object is moved closer and closer.

**corresponding p.** The point in the retina of each eye that, when stimulated simultaneously, results in a single visual sensation.

**craniometric p.** One of the fixed points of the skull used in craniometry. SEE: *craniometry* for illus.

**critical p. of gases** The temperature at or above which a gas is no longer liquefied by pressure.

**critical p. of liquids** The temperature above which no pressure may retain a substance in a liquid form.

**deaf p. of the ear** One of several points or areas close to the external auditory meatus where a vibrating tuning fork is not heard.

**disparate p.** Points on the retinas that are unequally paired.

**end p.** The point or time at which a reaction or activity is completed.

**external orbital p.** The prominent point at the outer edge of the orbit above the frontomalar suture.

**far p.** Point (normally 20 ft [6.1 m] or more) at which distinct vision is possible without aid of the muscles of accommodation. It may be nearer than 20 ft (6.1 m) according to the degree of myopia. There is no far point in the hypermetropic eye.

**fixation p.** The fovea or point on the retina where the visual axes (lines) meet the point of clearest vision.

**flash p.** The temperature at which a substance bursts into flame spontaneously.

**focal p.** The point at which a group of light rays converge.

**freezing p.** The temperature at which liquids become solid.

**fusion p.** Melting point.

**Guéneau de Mussy's p.** The point located at the junction of a line extending down from the left border of the sternum with a horizontal line at the level of the bony part of the anterior portion of the tenth rib. Pressure on this point causes pain in cases of diaphragmatic pleurisy.

**gutta-percha p.** A cone made of gutta-percha combined with other material that is used in filling root canals of teeth.

**Halle's p.** [Adrien Joseph Marie Noël Halle, Fr. physician, 1859–1947] The point at the intersection of a horizontal line drawn from the anterior superior iliac spines and an angled line extending up from the pubic spine. At that point,

the ureter is palpable as it crosses the pelvic brim.

**hot p.** A spot on the skin that perceives hot but not cold stimuli.

**ice p.** The temperature at which there is equilibrium between ice and air-saturated water at one atmosphere of pressure.

**identical retinal p.** The points in the two retinas upon which the images are seen as one.

**isoelectric p.** The particular pH of a solution of an amphoteric electrolyte such as an amino acid or protein in which the charged molecules do not migrate to either electrode. Proteins are least soluble at this point. Thus at the appropriate pH, proteins may be precipitated.

**isoionic p.** The pH at which a solution of ionized material has as many negative as positive ions.

**J p.** On the electrocardiogram, the juncture between the end of the QRS complex and the beginning of the T wave; that is, between the representations of ventricular depolarization and repolarization.

**lacrimal p.** The outlet of the lacrimal canaliculus. SYN: *punctum lacrimale*.

**Lanz's p.** [Otto Lanz, Swiss surgeon in the Netherlands, 1865–1935] The point on the line between the two anterior superior iliac spines, one third of the distance from the right spine, indicating the origin of the vermiform appendix.

**Lian's p.** The point at the junction of the outer and middle thirds of a line from the umbilicus to the anterior superior spine of the ilium where a trocar may be introduced safely for paracentesis.

**p. of maximal impulse** ABBR: PMI. The point on the chest wall over the heart at which the contraction of the heart is best seen or felt; normally at the fifth intercostal space in the midclavicular line.

**maximum occipital p.** The point on the occipital bone farthest from the glabella.

**melting p.** SEE: *melting point*.

**mental p.** The most anterior point of the midline of the chin.

**metopic p.** Glabella.

**motor p.** The point usually about the middle of a muscle where a motor nerve enters the muscle at which a minimal electrical stimulus to the overlying skin will elicit a visible contraction.

**Munro's p.** [John Cummings Munro, U.S. surgeon, 1858–1910] The point halfway between the left anterior iliac spine and the umbilicus.

**nasal p.** Nasion.

**p. of no return** A colloquial term describing a critical biochemical event that indicates lethal, irreversible

changes in cells following ischemic cell injury.

**nodal p.** Either of a pair of points situated on the axis of an optical system so that any incident ray sent through one will produce a parallel emergent ray sent through the other.

**occipital p.** The most posterior point on the occipital bone.

**pressure p.** SEE: under *pressure*.

**principal p.** One of two points so situated that the optical axis is cut by the two principal planes.

**p. of regard** The point at which the eye is looking.

**silver p.** An elongated, tapered silver plug used to fill the root canal in the endodontic treatment of teeth.

**subnasal p.** The center of the base of the anterior nasal spine.

**supra-auricular p.** The point on the skull on the posterior root of the zygomatic process of the temporal bone, directly above the auricular point.

**supraorbital p.** A neuralgic point just above the supraorbital notch.

**tender p.** One of the anatomic locations used to identify fibromyalgia. The deep diffuse muscular pain is localized to a number of reproducible (from patient to patient) areas that are tender when palpated. Tender points differ from trigger points in that pain does not radiate to referred areas. SEE: *fibromyalgia* for table.

**thermal death p.** The temperature required to kill all of the organisms in a culture in a specified time.

**trigger p.** SEE: under *trigger*.

**triple p.** The temperature and pressure that allow the solid, liquid, and vapor forms of a substance to exist in equilibrium.

**vital p.** The point in the medulla oblongata close to the floor of the fourth ventricle, the puncture of which causes instant death owing to destruction of the respiratory center.

**Voillemier's p.** The point on the linea alba of the abdominal wall about 6 to 7 cm below a line connecting the anterior superior iliac spines. Suprapubic puncture of the bladder may be made at this point in obese or edematous individuals.

**point of care** Any location where patient care is provided, including, e.g., the bedside, radiology suite, emergency room, clinic, or ambulance.

**point of entry** In dental or medical radiography, the location on the face toward which the central ray is directed. Points of entry are typically in the region of the apices of the teeth.

**pointer, light** A head-mounted input device to enable computer use by persons with paralysis or limited movement. These devices typically operate through visible or invisible light sources at the tip of the pointer, which transmits a sig-

nal to a computer-mounted light sensor or receiver.

**pointillage** (pwǎn'ti-yǎzh') [Fr.] Massage with the fingertips. SEE: *effleurage*.

**pointing** 1. Reaching a point. 2. Forming a localized collection of pus near the body surface.

**point-of-care testing** ABBR: POCT. Use of testing equipment in an area near the patient, rather than sending the specimen to a laboratory. This enables health care providers to learn the results of the test immediately. Glucometers were the first of many new devices that allowed tests previously performed in the laboratory to be done in the clinical setting. Examples of POCT are Nitrazine strips for measuring vaginal pH, refractometers for measuring urine specific gravity, and immunoassays for measuring the creatine phosphokinase isoenzymes, myoglobin, and troponin I. As the number of these devices increases, regulatory agencies have recognized this change in practice and have established guidelines for case quality.

**point of service** A form of extended health-care coverage granted to members of managed-care plans who opt to pay additional premiums for medical services provided by special panels of providers.

**poise** (poyz) [J. M. Poiseuille] The unit of viscosity; the tangential shearing force required to be applied to an area of 1 cm<sup>2</sup> between two parallel planes of 1 cm<sup>2</sup> in area and 1 cm apart in order to produce a velocity of flow of the liquid of 1 cm/sec.

**Poiseuille's law** (pwǎ-zǔ'yězh) [Jean Marie Poiseuille, Fr. physiologist, 1799–1869] A law that states that the rapidity of the capillary current is directly proportional to the fourth power of the radius of the capillary tube, the pressure on the fluid, and inversely proportional to the viscosity of the liquid and the length of the tube.

**Poiseuille's space** The sluggish current close to the wall of a blood vessel where blood cells move slowly, if at all; rapid flow occurs down the middle of the vessel.

**POISINDEX**<sup>®</sup> (pöy-zin-děks) A computerized database, revised quarterly, on over 300,000 commercial compounds. For information, contact Micromedex, Inc., 600 Grant St., Denver, CO 80203; (800) 525-9083.

**poison** (poy'zn) [L. *potio*, a poisonous draft] Any substance taken into the body by ingestion, inhalation, injection, or absorption that interferes with normal physiological functions. Virtually any substance can be poisonous if consumed in sufficient quantity; therefore the term poison more often implies an excessive degree of dosage rather than



a specific group of substances. Aspirin is not usually thought of as a poison, but overdoses of this drug kill more children accidentally each year than any of the traditional poisons. SEE: *poisoning; Poisons and Poisoning Appendix.*

**cellular p.** Anything that damages or kills cells.

**p. ivy** A climbing vine, *Toxicodendron radicans*, which on contact may produce a severe form of pruritic dermatitis. *Rhus* species contain urushiol, an extremely irritating oily resin, and pentadecylcatechol, a common allergen, which stimulates a type IV hypersensitivity reaction. First contact produces sensitization; later contacts cause severe blistering, eczema, and itching. SEE: *illus. (Poison Ivy-Poison Oak-Poison Sumac; Poison Ivy Dermatitis).*



POISON IVY, POISON OAK, POISON SUMAC

(FROM TOP TO BOTTOM)



POISON IVY DERMATITIS

**p. oak** A climbing vine, *Toxicodendron diversiloba*, closely related to poison ivy and having the same active substances. SEE: *poison ivy* for *illus.*

**pesticidal p.** Chemicals whose toxic properties are commercially exploited in agriculture, industry, or commerce to increase quantity, improve quality, or generally promote consumer acceptability of a variety of products. Common types include insecticides, rodenticides, herbicides, defoliants, fungicides, insect repellents, molluscicides, and some kinds of food additives. The wide variety of poisons commonly found in and around the home constitutes an important source of accidental poisonings. SEE: *Poisons and Poisoning Appendix.*

**p. sumac** SEE: under *sumac.*

**poison control center** A facility meeting the staffing and equipment standards of the American Association of Poison Control Centers and recognized to be able to give information on, or treatment to patients suffering from, poisoning. A poison information center consists of specially trained staff and a reference library but does not have treatment facilities. More than 400 poison centers are scattered throughout the U.S. They offer 24-hr service. They are commonly associated with or are part of large hospitals or medical schools. A government agency—the Bureau of Drugs Division of the Poison Control Branch of the Food and Drug Administration, U.S. Department of Health and Human Services—is also active in poison control programs and in coordinating the efforts of individual centers. For the address and telephone number of state or province poison control centers, SEE: *Health Care Resources Appendix.*

**poisoning** [*L. potio*, a poisonous draft]

1. Illness produced by the introduction of a toxic substance into the body. 2. Administration of a noxious substance. SEE: *intoxication; Poisons and Poisoning Appendix.*

**PATIENT CARE:** Poisoning should be suspected in many clinical circumstances but esp. in instances in which a patient has otherwise unexplained alterations in consciousness. The standard care of the poisoned patient begins with immediate stabilization of the patient's airway, breathing, circulation, and neurological status if these are compromised. This may require oximetry, blood gas analysis, electrocardiographic monitoring, airway placement, endotracheal intubation, fluid resuscitation, administration of naloxone and dextrose, or the use of pressors for some severely intoxicated patients. If the intoxicating substance can be identified, reference texts or local poison control centers should be contacted to determine specific antidotes or treatments. When the poison is not identified or when rescuers are uncertain about the underlying cause, it is safest to test blood and urine



for acetaminophen, aspirin, and commonly abused drugs. Blood testing should also include assessments of electrolytes, kidney function, liver function, and a complete blood count. Women of childbearing age should also be routinely screened for pregnancy.

Decontamination of the gastrointestinal tract may include the use of activated charcoal if the patient has ingested a drug or chemical to which the charcoal can bind; or whole bowel irrigation, which sweeps toxins from the bowel before they are absorbed. Inducing vomiting, formerly relied on in poisonings, is now rarely used because it has not been shown to improve outcome and may cause complications such as aspiration pneumonia. After decontamination procedures specific antidotes, if available, should be administered.

The elimination of many drugs from the body can be enhanced by other means, including, in some instances, the administration of alkaline fluids, hemodialysis, or hemoperfusion.

Once the patient is physically stabilized, the underlying reason for the intoxication should be addressed. Patients with substance abuse problems should be referred for detoxification, support, and counseling; suicidal and depressed patients may benefit from counseling or drug therapy. Demented patients who have poisoned themselves because of confusion about their medications should have the administration of their medications supervised. In some cases, poisonings are iatrogenic (i.e., they are due to unintended consequences of prescribed drugs or drug-drug interactions). Careful prescribing may prevent future intoxications.



Many illnesses (e.g., massive strokes, postictal states, insulin reactions, sepsis, meningitis, uremia) mimic the symptoms of poisoning, esp. when the patient has altered mental status.

**acetaminophen p.** Liver injury, necrosis, or failure resulting from an overdose of acetaminophen. Because acetaminophen is one of the most commonly used over-the-counter (OTC) pain relievers, this is one of the most common poisonings encountered in emergency departments and hospitals. Acetaminophen is found in many OTC and prescription drugs. If a reliable history of the amount of drug can be obtained, ingestions that exceed 7.5 g in the adult or about 150 mg/kg in children should always be considered potentially toxic. In most cases, however, data about overdoses are not reliable, and plasma levels of acetaminophen concentration

are routinely measured and compared with standard nomograms to decide whether a patient will need antidotal therapy with N-acetylcysteine.

**CLINICAL COURSE:** Shortly after ingestion, patients may suffer nausea, vomiting, and malaise. If appropriate treatment is not instituted, hepatitis develops, with elevated liver enzymes in the first day, and jaundice and coagulation disorders by about 36 hr. Encephalopathy (altered mentation, drowsiness, or coma) may follow. A prolonged course of recovery or complete liver failure may result, depending on the amount of drug ingested and the severity of the liver injury.

**PATIENT CARE:** Gastrointestinal (GI) decontamination with activated charcoal absorbs toxin from the GI tract, but it should be given within 4 hr of ingestion of the drug. A specific antidote, N-acetylcysteine, is given orally within 8 to 10 hr after ingestion in an initial dose of 140 mg/kg and then in 70 mg/kg doses every 4 hr for 17 doses if acetaminophen levels are toxic. Alternately, acetylcysteine may be administered intravenously. Blood should be drawn for stat acetaminophen level, CBC, electrolyte levels, BUN, serum creatinine, serum glucose, liver function, prothrombin time, and further toxicology screens (if the presence of other drugs is suspected). Urine also should be analyzed for drug content. If the patient with a suspected overdose is a female of child-bearing age, a pregnancy test should be done as a part of routine laboratory studies. The overdosed patient should be cared for in an intensive care unit until medically and psychiatrically cleared for discharge. SEE: *Poisons and Poisoning Appendix; Rumack nomogram.*



Taking more than 4 g of acetaminophen in one day (adults) or more than 90 mg/kg (children) can damage the liver and may lead to coma, kidney failure, and death.

**acetanilid p.** Toxicity caused by acetanilid ingestion. Symptoms are cyanosis due to formation of methemoglobin, cold sweat, irregular pulse, dyspnea, and unconsciousness. Sudden cardiac failure may occur.

**FIRST AID:** Irrigate exposed skin with soap and water (e.g., in the safety shower). Support breathing and oxygenation. Notify the local poison control center. SEE: *Poisons and Poisoning Appendix.*

**acetylsalicylic acid p.** Aspirin poisoning.

**acid p.** Ingestion of a toxic acid. SEE:

*acids in Poisons and Poisoning in Appendix.*

**FIRST AID:** Dilute with large volumes of water. Give demulcents and morphine for pain. Treat as a chemical burn.



The use of emetics and stomach tubes is contraindicated.

**acute cocaine hydrochloride p.** The acute, toxic, systemic reaction to an overdose of cocaine that has been eaten, smoked, inhaled, or injected. SEE: *Nursing Diagnoses Appendix.*

**SYMPTOMS:** An overdose of cocaine is an accelerated version of the classic physiological and psychological responses to cocaine use. Initial euphoria is followed by excitability, delirium, tremors, convulsions, tachycardia, and angina pectoris (all signs of overwhelming sympathetic stimulation of the brain, heart, and lungs). Death is usually due to a cardiovascular event or to respiratory failure. Plasma and liver pseudocholinesterase detoxify cocaine into water-soluble metabolites that are excreted in urine. Anyone with low plasma cholinesterase activity (e.g., fetus, infant, pregnant woman, or someone with liver disease) is esp. prone to cocaine toxicity. People who congenitally lack pseudocholinesterase are highly sensitive to the effects of any dose of cocaine.

Many chronic cocaine users overdose while taking no more than their usual amount of the drug, when, e.g., the purity (pharmacological strength) of an ingested dose is greater than usual or the drug has been mixed or laced with another psychoactive substance. Lethal overdoses are usually caused by acute coronary syndromes. Some cocaine users may die instead of intracerebral hemorrhage. The presenting findings may include seizures, hemiplegia, aphasia, or coma. Patients admitted for trauma may also be cocaine intoxicated (two-thirds of cocaine-related deaths result from traumatic injuries, not drug overdose). Because many signs and symptoms that cocaine produces resemble those that result from injuries, and because cocaine poisoning is life-threatening, emergency department care providers must quickly distinguish drug-related problems from traumatic injury problems.

**TREATMENT:** Oxygen and aspirin should be given with benzodiazepines to reduce agitation and calcium channel blockers to reduce high blood pressure. Beta blockers should be avoided.

**PATIENT CARE:** Vital signs are checked frequently, the patient is attached to a cardiac monitor, and an in-

travenous line is initiated. Large volumes of fluids are infused to help remove protein breakdown products from the body (a result of rhabdomyolysis). Bilateral lung sounds are auscultated frequently during fluid resuscitation because aggressive fluid therapy can worsen heart failure. Care providers try to physically control patients to prevent them from injuring themselves. If patients demonstrate violent or aggressive behavior, chemical or physical restraints may be required. Calcium channel blockers or a benzodiazepine is administered as prescribed to reduce the patient's blood pressure and heart rate. Seizures, which occur because the seizure threshold is lowered by cocaine, are treated with diazepam. Because cocaine causes hypothalamic thermal regulatory dysfunction, core body temperature is monitored closely. Elevated temperature is treated with acetaminophen and cooling blankets, cool-air ventilation, and cool saline gastric lavage. Central Nervous System (CNS) stimulation may be followed by CNS depression, characterized by flaccid paralysis, coma, fixed and dilated pupils, respiratory failure, and cardiovascular collapse.

Cocaine smuggling often involves "body packing" (swallowing balloons, condoms, or other objects filled with cocaine). If these items leak, the patient becomes intoxicated and is at high risk for death.

If the patient survives the acute poisoning episode, treatment is directed toward helping the patient abstain from drugs and preventing relapses. The patient benefits from consultation with an addictions specialist or mental health nurse practitioner. Studies support the effectiveness of a 12-step program, such as Cocaine Anonymous, to help build a solid recovery program. Other community resources also can be accessed to provide various types of support and to help the patient identify and manage relapse triggers.

**acute lead p.** The ingestion or inhalation of a large amount of lead, causing abdominal pain, metallic taste in mouth, anorexia, vomiting, diarrhea, headache, stupor, renal failure, convulsions, and coma. SEE: *Nursing Diagnoses Appendix.*

**TREATMENT:** Adequate urine flow should be established; convulsions may be controlled with diazepam. Calcium disodium edetate and dimercaprol are administered to remove lead from the body. After acute therapy is completed, penicillamine is given orally for 3 to 6 months for children and up to 2 months for adults. The exposure to lead should be reduced or eliminated.



Patients receiving penicillamine therapy must be monitored weekly

for adverse reactions, including diffuse erythematous rashes, angioneurotic edema, proteinuria, and neutropenia. Penicillamine is contraindicated in patients with a history of penicillin sensitivity, renal disease, or both.

**acute nicotine p.** Excessive stimulation of the autonomic nervous system resulting from nicotine exposure. Usually nicotine poisoning occurs when young children accidentally consume nicotine chewing gum or patches found in the home. SEE: *Poisons and Poisoning Appendix*.

**SYMPTOMS:** Nausea, salivation, abdominal pain, vomiting, diarrhea, sweating, dizziness, and mental confusion. If the dose is sufficient, the patient will collapse, develop shock, convulse, and die of respiratory failure due to paralysis of respiratory muscles.

**TREATMENT:** Activated charcoal may be given to conscious patients who are not vomiting. Unconscious patients should be intubated and supported in an intensive care unit. Anticonvulsants are used to treat seizures.

**alkali p.** Ingestion of an alkali.

**TREATMENT:** Large amounts of water are given by mouth. Consultation with an ear, nose, and throat specialist is often advisable. Tracheostomy or intubation is performed if necessary to protect the airway. Morphine is useful to allay pain. Rest, heat, quiet, and adequate fluid intake are imperative.



Emetics, strong acids, and lavage should be avoided. Fluid balance and electrolytes should be carefully monitored.

**aluminum p.** Nausea, vomiting, renal dysfunction, and cognitive disorders resulting from excessive exposure to aluminum. Aluminum poisoning (impaired cognition or "dialysis dementia" in patients with end-stage renal disease) has been nearly eliminated now that dialysates no longer contain aluminum.

**aminophylline p.** SEE: *Poisons and Poisoning Appendix*.

**amphetamine p.** SEE: *Poisons and Poisoning Appendix*.

**aniline p.** SEE: *Poisons and Poisoning Appendix*.

**antihistamine p.** SEE: *Poisons and Poisoning Appendix*.

**antimony p.** Toxicity caused by ingestion of antimony. Symptoms include an acrid metallic taste, cardiac failure, sweating, and vomiting about 30 min after ingestion. In large doses it causes irritation of the lining of the alimentary tract, resembling arsenic poisoning.

**FIRST AID:** British antilewisite can

be used as an antidote. SEE: *arsenic in Poisons and Poisoning Appendix*.

**arsenic p.** Illness produced by ingestion of arsenic.

**SYMPTOMS:** Symptoms include a burning pain throughout the gastrointestinal tract, vomiting, dehydration, shock, dysrhythmias, coma, convulsions, paralysis, and death.

**FIRST AID:** The stomach should be lavaged with copious amounts of water. Dimercaprol (British antilewisite) or other chelators (e.g., penicillamine) should be given immediately.

**TREATMENT:** After first aid, fluid and electrolyte balance must be maintained. Morphine should be given for pain. The patient is treated for shock and pulmonary edema. Blood transfusion may be required. SEE: *arsenic in Poisons and Poisoning Appendix*.

**arum family p.** Poisoning caused by ingestion of plants of the genus *Arum* (e.g., dieffenbachia, caladium, and philodendron), which contain poisonous calcium oxalate crystals. Symptoms include irritation, pain, burning, and swelling of the affected areas. The affected area should be washed with water, and ice should be applied. If pain is severe, corticosteroids are of benefit.

**aspirin p.** Toxicity caused by ingesting an excessive amount of aspirin. In acute poisoning, signs vary with increasing doses from mild lethargy and hyperpnea to coma and convulsions. Sweating, dehydration, hyperpnea, hyperthermia, and restlessness may be present with moderate doses. In chronic poisoning, tinnitus, skin rash, bleeding, weight loss, and mental symptoms may be present. Aspirin poisoning in very young infants may produce very few signs and symptoms other than dehydration or hyperpnea.

**TREATMENT:** Activated charcoal is given by mouth. Intravenous (IV) fluids are given for dehydration but must not be overloaded. Enough IV fluids should be given to establish 3 to 4 ml/kg/hr of urine flow. Alkalinization of urine is achieved by administering bicarbonate. The goal is a urine pH of 8 or higher. After urine flow is established, potassium 30 mEq/L of administered fluid should be added. After serum potassium levels reach 5 mEq/L, potassium should be discontinued. If alkalinization of the urine is not attained, hemodialysis may be needed. SYN: *acetylsalicylic acid poisoning*. SEE: *salicylates in Poisons and Poisoning Appendix*.

**atropine sulfate p.** Anticholinergic side effects of atropine exposure, including restlessness, dry mouth, fever, hot and dry skin, pupillary dilation, tachycardia, hallucinations, delirium, and coma. SYN: *atropinism*.

**PATIENT CARE:** Oxygen is given; a cardiac monitor, oximeter, and automated blood pressure cuff are applied; and intravenous fluids are administered. Patients experiencing restlessness may respond to the administration of a benzodiazepine (e.g., lorazepam or diazepam). If the atropine has been ingested orally, gastric lavage with activated charcoal may absorb some of the toxin from the gastrointestinal tract. Severe neurological side effects (e.g., seizures) may be treated with physostigmine. SEE: *Poisons and Poisoning Appendix*.

**barbiturate p.** Excessive sedation, sometimes accompanied by an inability to protect the airway; coma; shock; and hypothermia as a result of overdose with barbiturates. Agents commonly taken in overdose include secobarbital, phenobarbital, or butalbital.

**TREATMENT:** When oxygenation and ventilation are compromised, intubation and mechanical ventilation may be needed. Other supportive treatments include the administration of activated charcoal, bicarbonate-containing fluids (to make the urine alkaline and increase barbiturate excretion), rewarming techniques, and fluids or drugs to support blood pressure.

**blood p.** An outdated term for septicemia.

**boric acid p.** Intoxication caused by the consumption of or exposure to boric acid.

**SYMPTOMS:** Symptoms may include nausea, vomiting, diarrhea, convulsions, weakness, central nervous system depression, livid skin rash characterized as "boiled lobster rash," and shock. Acute renal failure and cardiac failure may result from large ingestions.

**TREATMENT:** Activated charcoal may prevent absorption of boric acid from the gastrointestinal tract. Hemodialysis is sometimes required for severe intoxications. SEE: *Poisons and Poisoning Appendix*.

**brass p.** Poisoning due to the inhalation of fumes of zinc and zinc oxide, causing destruction of tissue in the respiratory passage. It is rarely fatal. Symptoms include dryness and burning in respiratory tract, coughing, headache, and chills.



Call the nearest poison control center to determine proper therapy.

**brodifacoum p.** Poisoning caused by the intentional or unintentional intake of brodifacoum. Brodifacoum, a long-acting derivative of warfarin, is often found in rodenticides.

**SYMPTOMS:** Hemorrhage is the most common side effect; it may occasionally

be life-threatening. Bleeding within the kidneys and urinary tract produces acute renal failure.

**TREATMENT:** Because warfarin interferes with the liver's use of vitamin K to produce clotting factors, brodifacoum poisoning is treated with vitamin K, fresh frozen plasma, and supportive therapy.

**bromide p.** Poisoning due to an overdose of bromide.

**SYMPTOMS:** Symptoms include vomiting, abdominal pain, respiratory and eye irritation if inhaled, corrosion of the mouth and intestinal tract if swallowed, cyanosis, tachycardia, and shock.

**FIRST AID:** If bromide is inhaled, oxygen is administered, respiratory support provided, and pulmonary edema treated. If bromide is swallowed, gastric lavage may reduce intestinal absorption. SEE: *Poisons and Poisoning Appendix*.

**buckthorn p.** Motor paralysis resulting from consumption of the fruit of the buckthorn (a species of *Bumelia*) that grows in the southeastern U.S.

**camphor p.** SEE: *Poisons and Poisoning Appendix*.

**carbon dioxide p.** Toxicity from carbon dioxide inhalation. In small quantities (up to about 5%) in inspired air, CO<sub>2</sub> stimulates respiration in humans; in greater quantities it produces an uncomfortable degree of mental activity with confusion. Although not toxic in low concentrations, CO<sub>2</sub> can cause death by suffocation. Poisoning is rarely fatal unless exposure occurs in a closed space.

**SYMPTOMS:** Symptoms include a sensation of pressure in the head, ringing in the ears, an acid taste in the mouth, and a slight burning in the nose. With massive exposures to very concentrated carbon dioxide, respiratory depression and coma may occur.

**TREATMENT:** The patient should be removed to fresh air and given oxygen and, if needed, ventilatory assistance.

**carbon monoxide p.** Toxicity that results from inhalation of small amounts of carbon monoxide (CO) over a long period or from large amounts inhaled for a short time. In the U.S., where exposure to smoke, car exhaust, and other sources of incomplete combustion of carbon fuels is common (esp. during the winter months), CO poisoning is one of the most frequent, and potentially deadliest, intoxications. CO poisoning results from the avid chemical combination of the gas with hemoglobin, forming carboxyhemoglobin (COHb). SEE: *Poisons and Poisoning Appendix*.



Pulse oximetry is not a useful measure in CO intoxication: it cannot differentiate between carboxyhemoglobin

and oxyhemoglobin and therefore gives a falsely elevated indication of oxygenation.

**SYMPTOMS:** The symptoms of CO poisoning vary with the level of exposure and the concentration of COHb in the bloodstream. At levels of less than 10%, patients may be symptom-free or may complain only of headache. (Heavy cigarette smoking may produce levels as high as 7% to 9%.) COHb levels of 30% produce mild neurological impairment (dizziness, fatigue, difficulty concentrating), and levels of 50% may cause seizures or coma. Death is likely when COHb levels exceed 70%.

**PATIENT CARE:** Arterial or venous COHb levels should be obtained immediately, and serial levels checked hourly to monitor treatment effectiveness. Blood glucose, ethyl alcohol, acetaminophen, and other drug levels should be measured on all patients who come to the Emergency Department with altered mental status. Computed tomography or MR imaging of the brain may also be necessary. The affected person should be removed immediately from exposure to CO. If the patient has severe CO poisoning (indicated by carboxyhemoglobin levels above 25%) or cardiovascular and neurologic impairment regardless of levels, hyperbaric oxygen therapy should be employed if available, and the patient admitted to the hospital. 100% oxygen is given with a tight-fitting non-rebreather mask, under pressure (hyperbaric) if possible. Intubation and mechanical ventilation should be used if indicated. A venous access is used to provide saline infusion, and cardiac and hemodynamic monitoring is established. The patient should be kept at bedrest to reduce the body's oxygen requirements.

Potential complications of hyperbaric therapy include sinus and middle ear barotrauma, hyperoxic seizure, anxiety, and oxidative stress. Intubation and mechanical ventilation should be used for patients with diminished level of consciousness or respiratory distress, esp. if hyperbaric treatment is not available. An antiemetic may be prescribed to manage nausea and prevent vomiting. Bedrest limits exertion and tissue oxygen demand, thus reducing organ ischemia. Patients with underlying cardiac or renal disease are necessarily at increased risk for CO complications. In general, people with more severe initial symptoms are at higher risk for sequelae.

Clinical improvement after treatment is indicated by the presence of hemodynamic stability without IV support, mechanical ventilation, or supplemental oxygen; sufficient urine output; the return of an appetite; and a stable neu-

rological status. A follow-up visit with a health care professional is advisable shortly after discharge. Patients should be taught about the major causes of CO exposure and should not return home until the source of carbon monoxide has been eliminated (e.g., by a certified heating and ventilation specialist). The importance of having the home heating furnace inspected and cleaned annually should be stressed. Patients should also be cautioned about working on an automobile in a garage with the engine running or burning items indoors. The Consumer Product Safety Commission recommends that CO detectors should be installed on each level of the home and just outside the sleeping areas. Most are battery operated and easily installed. Patients should be advised to evacuate the home if an alarm sounds, leaving windows or doors open for ventilation, and to call 911. Alarms should never be turned off or ignored, and batteries should be replaced when the clocks are changed, as for smoke alarms. SEE: table.

**carbon tetrachloride p.** Toxic effects due to prolonged inhalation of carbon tetrachloride. Consequences include irritation of the eyes, nose, and throat, headache, confusion, central nervous system depression, visual disturbances, nausea, anorexia, hepatitis, nephropathy, and cardiac arrhythmias.

**TREATMENT:** Clothes contaminated with carbon tetrachloride are removed. Oxygen, artificial respiration, gastric decontamination, and management of cardiac rhythms are often needed. SEE: *Poisons and Poisoning Appendix*.

**chloride p.** SEE: *barium salts, absorbable, in Poisons and Poisoning Appendix*.

**chlorpromazine p.** SEE: *Poisons and Poisoning Appendix*.

**chromium p.** Toxicity caused by excess chromium (e.g., in mining, welding, or pigment manufacturing). It may cause contact dermatitis, skin burns, or lung, liver, or kidney damage. Treatment after ingestion consists of gastrointestinal irrigation followed by forced diuresis and alkalization of urine.

**chronic lead p.** The chronic ingestion or inhalation of lead, damaging the central and peripheral nervous systems, kidneys, the blood-forming organs, and the gastrointestinal tract. Early symptoms include loss of appetite, weight loss, anemia, vomiting, fatigue, weakness, headache, lead line on gums, apathy or irritability, and a metallic taste in the mouth. Later, symptoms of paralysis, sensory loss, lack of coordination, and vague pains develop. Laboratory diagnosis is made through evidence of anemia, blood lead level above 5  $\mu\text{g}/\text{dl}$ ,



### Toxicity of Carbon Monoxide

Carbon Monoxide Concentration in Air		Comment
Percent in Air	Parts per Million	
0.005	50	Occupational Safety and Health Administration (OSHA) maximum permissible exposure limit averaged over an 8-hr day
0.01	100	OSHA standard: Maritime worker peak concentration limit
0.02	200	OSHA standard: Brief exposures during loading and unloading cargo are permissible
0.04	400	The level of CO in cigarette smoke is eight times higher than the OSHA permissible exposure limit
0.08	800	Headache, dizziness, and nausea in 45 min; collapse and possible unconsciousness in 2 hr
0.16	1600	Headache, dizziness, and nausea in 20 min; collapse and possible death in 2 hr
0.32	3200	Headache and dizziness in 5–10 min; unconsciousness and possible death in 10–15 min
0.64	6400	Headache and dizziness in 1–2 min; possible death in 10–15 min
1.28	12,800	Immediate unconsciousness; possible death in 1–3 min

SOURCES: Adapted from Hamilton, A, and Hardy, H: *Industrial Toxicology*, ed 3. Publishing Sciences Group, Littleton, MA, 1974. Occupational Safety and Health Administration (OSHA).

elevated free erythrocyte protoporphyrin (FEP), increased excretion of lead in urine, and characteristic x-ray changes in the ends of growing bones. SEE: *Nursing Diagnoses Appendix*.

**TREATMENT:** Lead exposure should be eliminated and an adequate diet with added vitamins provided. Chelating agents such as dimercaprol, dimercaptosuccinic acid (succimer), or EDTA are given to reduce lead levels to normal.

**PATIENT CARE:** A history is obtained to determine whether the sources of lead ingestion or inhalation are due to the environment, work, or folk remedies, and preparations are made for their removal. (In many states, removal of household lead must be done by state-licensed specialists, not homeowners. The Centers for Disease Control and Prevention and local poison control centers provide relevant information. A 1-cm square chip of lead-based paint may contain a thousand times the usual safe daily ingestion of lead.) A history is obtained of pica; recent behavioral changes, particularly lack of interest in playing; and behavioral problems such as aggression and hyperirritability. The patient is assessed for developmental delays or loss of acquired skills, esp. speech. Central nervous system signs indicative of lead toxicity may be irreversible. The younger child is assessed for at-risk characteristics such as the

high level of oral activity in late infancy and toddlerhood; small stature, which enhances inhalation of contaminated dust and dirt in areas heavily contaminated with lead; and nutritional deficiencies of calcium, zinc, and iron, the single most important predisposing factor for increased lead absorption. Older children are assessed for gasoline sniffing, which is esp. prevalent among children in some cultures. The parent-child interaction is assessed for indications of inadequate child care, including poor hygienic practices, insufficient feeding to promote adequate nutrition, infrequent use of medical facilities, insufficient rest, less use of resources for child stimulation, less affection, and immature attitudes toward maintaining discipline. Prescribed chelating agents are administered to mobilize lead from the blood and soft tissues by enhancing its deposition in bones and its excretion in urine. A combination of drugs may result in fewer side effects and better removal of lead from the brain. If encephalopathy is present, fluid volume is restricted to prevent additional cerebral edema. Injections are administered intramuscularly, and injection sites are rotated for painful injections (which may include simultaneous procaine injection for local anesthesia). The child is allowed to express pain and anger, and physical and emotional comfort mea-

sure are provided to relieve related distress. In the absence of encephalopathy, injections are administered intravenously, and hydration is maintained. The patient is evaluated for desired drug effects measured by blood levels and urinary excretion of lead (Note: special blood collection and urine collection containers are necessary for some of the monitoring tests. The laboratory should be consulted before collection) and for signs of toxicity from the chelating agents. Prescribed anticonvulsants are administered as necessary to control seizures (often severe and protracted), an antiemetic for nausea and vomiting, an antispasmodic for muscle cramps, and analgesics and muscle relaxants for muscle and joint pain. Serum electrolytes are monitored daily, and renal function is evaluated frequently. Whole bowel irrigation is used when lead is visible in the GI tract (or for episodes of acute lead ingestion). Adequate nutrition is provided, and nutritional deficiencies are corrected, by administering prescribed supplements (e.g., of iron). An active, active-assisted, or passive range-of-motion exercise program is established to maintain joint mobility and prevent muscle atrophy. Parents are taught and supported to prevent recurrence, and the public is educated about the dangers of lead ingestion, the importance of screening young (esp. preschool) children at risk, the signs and symptoms indicative of toxicity, and the need for treatment.

**ciguatera p.** A form of fish poisoning due to eating certain types of bottom-dwelling shore fish (e.g., grouper, red snapper, sea bass, and barracuda). The toxin, ciguatoxin, is present in fish that feed on dinoflagellates. It acts within 5 hr of ingestion, and symptoms may persist for 8 days or longer. Symptoms include tingling of the lips, tongue, and throat, abdominal cramps, nausea, vomiting, diarrhea, paresthesia, hypotension, and respiratory paralysis. Treatment is supportive, but treatment of respiratory paralysis may be required.

**codeine p.** SEE: *opiate poisoning; Poisons and Poisoning Appendix.*

**cone shell p.** A toxic reaction to the neurotoxin delivered by the pointed, hollow teeth of the marine animal contained in the cone shell. Intense local pain, swelling, and numbness may last several days. In severe poisoning, muscular incoordination and weakness can progress to respiratory paralysis. Although death can occur, recovery within 24 hr is the usual outcome. There is no specific therapy, but supportive measures including artificial respiration and supplemental oxygen may be needed.

**corrosive p.** Poisoning by strong acids, alkalis, strong antiseptics including bichloride of mercury, carbolic acid (phenol), Lysol, cresol compounds, tincture of iodine, and arsenic compounds. These agents cause tissue damage similar to that caused by burns. If the substances have been swallowed, any part of the alimentary canal may be affected. Tissues involved are easily perforated. Death may result from shock or from asphyxiation caused by swelling of the throat and pharynx. Esophageal injury and stricture may be a late complication. SEE: *individual poisons in Poisons and Poisoning Appendix.*

**SYMPTOMS:** This type of poisoning is marked by intense burning of the mouth, throat, pharynx, and abdomen; abdominal cramping, retching, nausea, and vomiting, and often collapse. There may be bloody vomit (hematemesis) and diarrhea; the stools are watery, mucoid, bloody, and possibly stained with the poison or its products, resulting from its action on the contents of the alimentary tract. Stains of the lips, cheeks, tongue, mouth, or pharynx are often a characteristic brown; stains on the mucous membranes may be violet or black. Carbolic acid (phenol) stains are white or gray, resembling boiled meat; hydrochloric acid stains are grayish, nitric acid, yellow; sulfuric acid leaves tan or dark burns.

**TREATMENT:** Immediate treatment in a hospital is mandatory. It is important to try to discover the chemical substance ingested, and all materials such as food, bottles, jars, or containers should be saved. This is essential if the patient is comatose or an infant.



In treating corrosive poisoning, vomiting must NOT be induced; gastric lavage must not be attempted; and no attempt should be made to neutralize the corrosive substance.

Vomiting will increase the severity of damage to the esophagus by renewing contact with the corrosive substance. Gastric lavage may cause the esophagus or stomach to perforate. If the trachea has been damaged, tracheostomy may be needed. Emergency surgery must be considered if there are signs of possible perforation of the esophagus or of the abdominal viscera. Opiates will be needed to control pain. For esophageal burns, broad-spectrum antibiotic and corticosteroid therapy should be started. Intravenous fluids will be required if esophageal or gastric damage prevents ingestion of liquids. Long-range therapy will be directed toward preventing or treating esophageal scars and strictures.



### DIGITALIS POISONING

Atrial and junctional tachycardia caused by digitalis toxicity

**cyanide p.** Intoxication with any of several cyanide-containing compounds, very potent blockers of cellular oxygenation. They inhibit respiration by blocking oxidative phosphorylation at the cellular level. SEE: *Poisons and Poisoning Appendix*.

The most common patients are jewelers, metal platers, those who handle rodenticides, victims of smoke inhalation, and patients treated with very high doses of sodium nitroprusside. Rarely, cyanide poisoning results from the ingestion of certain fruits (e.g., the bitter cassava and some stone fruits).

**SYMPTOMS:** Palpitations, disorientation, and confusion may be rapidly followed by respiratory failure, seizures, coma, and death in patients who suffer large exposures. Smaller exposures may produce anxiety, dizziness, headache, and shortness of breath. Patients may report that they have detected an odor of bitter almonds at the time of exposure to cyanide.

**TREATMENT:** The patient is immediately treated with gastric lavage, and activated charcoal is given to adsorb to whatever toxin may remain in the gastrointestinal tract. Emesis is contraindicated. Oxygen is immediately provided; intubation and mechanical ventilation may be needed when the patient has suffered respiratory failure. Antidotes to cyanide poisoning include amyl nitrate, sodium nitrite, and sodium thiosulfate.

**digitalis p.** Acute or chronic toxicity due to the cumulative effect of digitalis. Its most common adverse effects include anorexia, nausea, vomiting, atrial tachycardia and other dysrhythmias, atrioventricular heart blocks, confusion, dizziness, or neurological depression. Digitalis toxicity is a potentially life-threatening, and frequently a drug-related, complication. SEE: *Nursing Diagnoses Appendix*.

**SYMPTOMS:** Extracardiac signs develop initially in most patients, the first of which is almost always anorexia. Nausea and vomiting, sometimes with abdominal pain and increased salivation, usually appear 1 to 2 days later. Other symptoms include fatigue, drows-

iness, general muscle weakness, and visual disturbances such as blurring of vision, yellow-green or white halos around visual images, light flashes, photophobia, and diplopia. Mental disturbances (e.g., agitation, hallucinations, and disorientation) are esp. common in elderly atherosclerotic patients. If the early signs are unheeded, 80% of patients eventually will show more serious cardiac signs. Toxic concentrations of digitalis can cause nearly every known arrhythmia. They can decrease heart rate by slowing conduction and increasing the refractory period at the AV node, or they can increase the rate by creating abnormal pacemaker activity in the conductive tissue. SEE: *illus*.

**PATIENT CARE:** The distinction between therapeutic and toxic levels of digoxin is narrow; therefore, health care providers must be alert to signs of digitalis poisoning in patients. Elderly patients and those with liver or kidney disease are at esp. high risk because their absorption, metabolism, and excretion rates are unpredictable. Health care providers should consider health status changes that can alter a patient's response to digitalis, including vomiting, diarrhea, or other gastrointestinal upset; acid-base or electrolyte disturbances (e.g., hypokalemia, hypomagnesemia, or hypercalcemia), which alter the heart's sensitivity to digitalis; hypothyroidism, which disrupts the patient's ability to metabolize digitalis; and liver or kidney disease, which modifies metabolism and excretion. Changes in a treatment regimen also can predispose the patient to toxicity, esp. the addition of or increase in dosages of drugs such as antiarrhythmics, calcium channel blockers, or potassium-wasting diuretics. Assessment for digitalis toxicity is necessary if electrical cardioversion is used to restore a patient to sinus rhythm because this procedure increases the heart's sensitivity to digitalis.

Because digitalis toxicity develops quickly and insidiously, the patient is taught early symptoms to report. Extracardiac signs can be missed or mistaken for complications of another condition

being treated (e.g., pneumonia). Health care providers need to compare the patient's current appetite and activity to the patient's previous health status, and carefully monitor the patient for electrolyte imbalances. Significant decreases or increases in heart rate and rhythmic irregularities must be reported because toxic concentrations may lead to ventricular fibrillation and death. If toxicity is suspected, an electrocardiogram is performed. Electrocardiographic signs of digitalis toxicity include first-degree atrioventricular (A-V) block with depressed S-T segments, shortened Q-T intervals, and flattened T waves. In the presence of such changes a serum digoxin level and basic chemistries may be used to confirm toxicity. Because hypokalemia is a major cause of digitalis toxicity, adequate potassium intake in the diet and prescribed supplementations are essential. The patient is advised about conditions such as diarrhea, which may deplete the body of potassium or contribute to dehydration and renal insufficiency. The patient is advised not to take over-the-counter medications without notifying his health care provider because these may alter his sensitivity to digitalis.

Digitalis poisoning may sometimes occur because of accidental or deliberate overdose. Emergency department personnel may sometimes remove the drug from the stomach by lavage or activated charcoal, administer intravenous fluids, provide potassium, monitor cardiac status, and/or treat cardiac arrhythmias as they arise. They may also administer digoxin immune FAB (ovine) to bind serum digoxin, preventing it from binding to cardiac receptors.

**disulfiram p.** SEE: *Antabuse in Poisons and Poisoning Appendix.*

**ergot p.** A toxic reaction from eating bread made with grain contaminated with the *Claviceps purpurea* fungus, or from an overdose of ergot. SYN: *ergotism*.

**SYMPTOMS:** Within several hours of ingestion, the patient may develop anticholinergic symptoms (e.g., abdominal cramping, bradycardia, pupillary dilation, urinary retention) and vasoconstriction (with ischemia and gangrene of the extremities).

**TREATMENT:** Sodium nitroprusside may counteract the vascular spasm produced by ergots. SEE: *Poisons and Poisoning Appendix.*

**fish p.** A form of food poisoning caused by eating fish that are inherently poisonous or poisonous because they had decomposed, become infected, or had fed on other poisonous life forms.

**fluoride p.** SEE: *Poisons and Poisoning Appendix.*

**food p.** Illness from ingestion of foods containing poisonous substances. These include mushrooms; shellfish; foods contaminated with pesticides, lead, or mercury; milk from cows that have fed on poisonous plants; foods that have putrefied or decomposed, or foods in which bacterial toxins have accumulated. SEE: *staphylococcal food p.*

**formaldehyde p.** Poisoning due to ingestion of formaldehyde.

**SYMPTOMS:** Symptoms include local irritation of the eyes, nose, mouth, throat; respiratory and gastrointestinal tracts; central nervous system disorders (including vertigo, stupor, convulsions, unconsciousness); and renal damage. SEE: *Poisons and Poisoning Appendix.*

**gasoline p.** The reaction of the body to ingested or inhaled gasoline.

**SYMPTOMS:** The most hazardous symptom of gasoline exposure is a potentially fatal inflammation of the lungs, caused by aspiration of even small quantities of distilled petroleum. Symptoms of oral ingestion may also include dizziness, disorientation, seizures, and other neurological difficulties; gastric irritation and vomiting; rashes; and cardiac rhythm disturbances.

**PATIENT CARE:** The exposed patient should be observed for at least 6 hours. If no evidence of respiratory distress or dysfunction is found, and if a chest x-ray exam shows no signs of chemical pneumonitis, the patient may be safely discharged home.

Patients with evidence of chemical pneumonitis should be treated with oxygen and monitored in a hospital. Patients in full respiratory failure will require mechanical ventilation. Those who have deliberately ingested gasoline may benefit from supportive psychotherapy or psychiatric referral.

**heavy metal p.** Toxicity caused by ingestion, inhalation, or absorption of any heavy metal, esp. lead or mercury. Symptoms are determined by the type and duration of exposure and may include pulmonary, neurological, integumentary, or gastrointestinal disorders.

**hemlock p.** Poisoning from ingesting hemlock *Conium maculatum*, causing weakness, drowsiness, nausea, vomiting, difficult breathing, paralysis, and death.

**TREATMENT:** Oral activated charcoal may be given to decrease the absorption of the toxin from the gastrointestinal tract. Respiratory failure should be treated with intubation and mechanical ventilation. The local Poison Control Center should be contacted for additional instructions.

**herbicide p.** Poisoning due to the use of a toxic herbicide such as 2,4-D.

**hyoscyamus p.** SEE: *atropine in Poisons and Poisoning Appendix.*

**hypochlorite salt p.** SEE: *Poisons and Poisoning Appendix.*

**iron p.** Acute poisoning usually caused by the accidental ingestion (usually by infants or small children) of iron-containing medications intended for use by adults. In the U.S., about 20,000 accidental iron exposures are reported each year.

**SYMPTOMS:** The victim vomits, usually within an hour of taking the iron. Vomiting of blood and melena may occur. If untreated, restlessness, hypotension, rapid respirations, and cyanosis may develop, followed within a few hours by coma and death.

**TREATMENT:** Whole bowel irrigation should be used to force ingested iron out of the gastrointestinal tract. Chelation of iron can be performed with deferoxamine, which binds circulating iron from the bloodstream.

**ivy p.** SEE: *poison ivy dermatitis.*

**lead p.** Ingestion or inhalation of substances containing lead. Symptoms of acute poisoning include a metallic taste in the mouth, burns in the throat and pharynx, and later abdominal cramps and prostration. Chronic lead poisoning is characterized by anorexia, nausea, vomiting, excess salivation, anemia, a lead line on the gums, abdominal pains, muscle cramps, kidney failure, encephalopathy, seizures, learning disabilities, and pains in the joints.

**TREATMENT:** Seizures are treated with diazepam. Fluid and electrolyte balance is maintained. Cerebral edema is treated with mannitol and dexamethasone. The blood lead level is determined. If it is above 50 to 60  $\mu\text{g}/\text{dl}$ , the lead is removed from the body with a chelator (e.g., edetate calcium disodium, dimercaprol, D-penicillamine, or succimer). Succimer has the advantage of being orally active and is esp. helpful in treating children. The effect of treatment is monitored closely and may have to be continued for a week or longer or repeated if the lead level rebounds.

**lye p.** SEE: *Poisons and Poisoning Appendix.*

**manganese p.** An uncommon cause of toxicity in workers exposed to manganese on a regular basis.

**SYMPTOMS:** Symptoms include muscular weakness, difficulty walking, tremors, central nervous system disturbances, and salivation.

**mercuric chloride p.** Acute toxic reaction to ingested or inhaled salt of mercury. This form of mercury may also be absorbed through the skin.

**SYMPTOMS:** Symptoms include severe gastrointestinal irritation with pain, cramping, constriction of the throat, vomiting, and a metallic taste in

the mouth. Abdominal pain may be severe. Bloody diarrhea, bloody vomitus, scanty or absent urine output, prostration, convulsions, and unconsciousness may follow. Death from uremia is the usual outcome unless treatment is begun immediately.

**TREATMENT:** Oxygen and intravenous fluids are given. Gastric lavage (not emesis) is used to empty the gastrointestinal tract. Dimercaprol or D-penicillamine is used for chelation. Similar treatment is given for mercurous chloride poisoning. SEE: *Poisons and Poisoning Appendix.*

**mercurous chloride p.** Acute toxic reaction to ingestion or absorption through the skin of mercurous chloride, a mercury salt. Acute poisoning is rare because it is poorly absorbed. Symptoms include increased salivation, abdominal discomfort, and diarrhea. SEE: *mercuric chloride in Poisons and Poisoning Appendix.*

**mercury p.** The acute or chronic consequences of the ingestion or inhalation of mercury. These include nausea, vomiting, abdominal pain, renal failure, gingivitis, behavioral and cognitive deficits, seizures, paralysis, pneumonitis, and/or death.

**TREATMENT:** Gastric lavage or whole bowel irrigation may be used to empty the gastrointestinal tract. Hemodialysis or chelation therapy (e.g., with succimer or penicillamine) may also be helpful. SEE: *mercuric chloride in Poisons and Poisoning Appendix.*

**methyl alcohol p.** Intoxication with methanol (methyl alcohol). The initial primary consequences are depression of central nervous system function (including coma or convulsions), visual disturbances (including permanent blindness) due to the concentration of the toxin in the vitreous humor and optic nerve, headache, abdominal cramping, nausea, weakness, and an anion-gap metabolic acidosis.

**TREATMENT:** Fluids and electrolyte and acid-base balance should be carefully monitored and adjusted. Methanol may be removed from the bloodstream by hemodialysis. SEE: *Poisons and Poisoning Appendix.*

**morphine p.** Acute intoxication by injected, inhaled, or orally consumed morphine sulfate. SEE: *opiate poisoning; Poisons and Poisoning Appendix.*

**mushroom p., mushroom and toadstool p.** Poisoning caused by ingestion of mushrooms such as *Amanita muscaria*, which contains muscarine, or species that contain phalloidin, a component of the amanita toxin. The nearest poison control center should be called for emergency treatment. SYN: *toadstool poisoning.* SEE: *amanita in Poisons and Poisoning Appendix.*



**mussel p.** Poisoning common on the Pacific coast of the United States resulting from eating mussels or clams that have ingested a poisonous dinoflagellate that is not destroyed by cooking. Mussel poisoning typically occurs from June to October.

**narcotic p.** Poisoning caused by narcotic or sleep-producing drugs such as opium and its derivatives.

**SYMPTOMS:** The patient may experience brief exhilaration followed by drowsiness, respiratory depression, or coma, or, in massive overdoses, death.

**TREATMENT:** An airway should be established and ventilation provided. A narcotic antagonist such as naloxone should be given.

**nitric acid p.** Injury sustained from contact with nitric acid. Symptoms include pain, burning, vomiting, thirst, and shock.

**TREATMENT:** Emergency measures include oral administration of activated charcoal and large volumes of water. Emetics and stomach tubes should be avoided because they may cause rupture of the esophagus or stomach.

**opiate p.** Intoxication by injected, inhaled, dermal, or orally consumed opiate or opioid analgesics.

**SYMPTOMS:** The patient may experience brief mental exhilaration followed by drowsiness, respiratory depression, pulmonary edema, coma, or, in massive overdoses, death.

**TREATMENT:** An airway should be established and ventilation provided. A narcotic antagonist such as naloxone is given, which may be repeated periodically if symptoms return. Pulmonary edema may be treated with diuretics, nitrates, and/or positive pressure ventilation. SEE: *Poisons and Poisoning Appendix*. SYN: *codeine poisoning; opium poisoning*.

**opium p.** Opiate Poisoning.

**oxalic acid p.** Acute poisoning occurring when oxalic acid is accidentally ingested or when large quantities of foods rich in oxalic acid are eaten. Ingestion of 5 g of oxalic acid may be fatal. Chronic poisoning may result from inhalation of vapors. SEE: *Poisons and Poisoning Appendix*.

**SYMPTOMS:** Signs and symptoms include a corrosive action on the mucosa of the mouth, esophagus, and stomach; a sour taste; burning in the mouth, throat, and stomach; great thirst; bloody vomitus; collapse; and, sometimes, convulsions and coma.

**TREATMENT:** Gastric lavage should be used to empty the gastrointestinal tract. Activated charcoal can be given to bind the acid. Vomiting should not be induced.

**paraldehyde p.** Poisoning in which symptoms resemble those of chloral hy-

drate poisoning; cardiac and respiratory depression, dizziness, and collapse with partial or complete anesthesia. It may also produce severe lactic acidosis.

**TREATMENT:** There is no specific antidote. Supportive care includes (when appropriate) airway management, ventilation, and hemodialysis.

**paraquat p.** Poisoning due to ingestion of paraquat. People who have consumed paraquat may be treated with oral activated charcoal and, if kidney failure is present, hemodialysis.

**paregoric p.** SEE: *opiate poisoning*.

**phenol p.** Intoxication or chemical burns of the skin, caused by exposure to carbolic acid—containing compounds, such as those found in some dyes, deodorizers, and disinfectants. These substances are corrosive to the skin and mucous membranes. SEE: *Poisons and Poisoning Appendix*.

**SYMPTOMS:** The patient may present with coagulative necrosis of affected skin or mucous membranes or with evidence of internal organ damage.

**TREATMENT:** Contaminated clothing should be removed immediately. The skin should then be irrigated with copious amounts of water and either isopropyl alcohol or a polyethylene glycol-containing solution. Patients who have ingested phenols should be treated with activated charcoal, to absorb as much toxin as possible, and be given general supportive care. Consultation with specialists in toxicology, otorhinolaryngology, and critical care medicine, may be necessary in cases of massive or severe exposure.

**pokeroot p.** Poisoning resulting from ingestion of pokeroot. Nausea, vomiting, drowsiness, vertigo, and possible convulsions and respiratory paralysis characterize this type of poisoning. Treatment includes administration of whole bowel irrigation or gastric lavage.

**potassium chlorate p.** Poisoning by potassium chlorate, large doses of which cause abdominal discomfort, vomiting, diarrhea, hematuria with nephritis, and disturbances of the blood. Gastric lavage should be used to empty the stomach. Other treatment is symptomatic.



Vomiting should not be induced.

**potassium chromate p.** Poisoning by potassium chromate, possibly contracted by inhalation or from touching the nose with contaminated fingers, causing deep indolent ulcers.

**SYMPTOMS:** When taken by mouth, potassium chromate has a disagreeable taste; causes cramping, pain, vomiting, diarrhea, slow respiration; and may affect the liver and kidneys.



Vomiting should not be induced.

**PATIENT CARE:** For ingestion, the patient is treated as if poisoned with a strong acid. Gastric lavage is administered through a nasogastric tube. Bronchoalveolar lavage or penicillamine may be used.

**potassium hydroxide p.** Poisoning by potassium hydroxide, characterized by nausea, soapy taste, and burning pain in the mouth; bloody, slimy vomitus; abdominal cramping; bloody purging and prostration.



Vomiting should not be induced.

**PATIENT CARE:** The patient requires hospitalization, morphine for pain, and, often, treatment for shock. If the patient's airway has been burned, topical care is provided; tracheostomy may be required. Corticosteroids and antibiotics may be given.

**potato p.** Poisoning due to ingestion of potatoes that contain excess amounts of solanine. This toxic substance is present in the potato peel and in the green sprouts. Potatoes usually contain about 7 mg of solanine per 100 g; the toxic dose of solanine is about 20 to 25 g. Boiling, but not baking, removes most of the solanine from the potato. Symptoms of poisoning include headache, vomiting, abdominal pain, diarrhea, and fever. Neurological disturbances include apathy, restlessness, drowsiness, confusion, stupor, hallucinations, and visual disturbances. There is no specific therapy. With appropriate supportive and symptomatic therapy, prognosis is good.

**quail p.** Acute myoglobinuria following ingestion of game birds of the species *Coturnix coturnix*. The cause is unknown but is suspected to be toxic rather than genetic (as was once believed).

**risk for p.** Accentuated risk of accidental exposure to, or ingestion of, drugs or dangerous products in doses sufficient to cause poisoning. SEE: *Nursing Diagnoses Appendix*.

**salicylate p.** Intoxication with aspirin or one of its derivatives. SEE: *aspirin poisoning*.

**scombroid fish p.** Intoxication due to eating raw or inadequately cooked fish of the suborder Scombroideae, such as tuna and mackerel, as well as certain non-scombroid fish, including amberjack, mahimahi, and bluefish. Certain bacteria act on the fish after they are caught to produce a histamine-like toxin. Therefore, these fish should be either properly cooked and eaten shortly

after being caught or refrigerated immediately.

**SYMPTOMS:** Nausea, vomiting, abdominal cramps, diarrhea, flushing, headache, urticaria, a burning sensation and metallic taste in the mouth, dizziness, periorbital edema, and thirst may develop 30 min after eating the fish and last a few hours.

**TREATMENT:** Antihistamines reverse many of the symptoms of the syndrome.

**shellfish p.** Poisoning produced when humans ingest shellfish that have fed on plankton during a red tide. There are several recognized syndromes that may result, including amnesic shellfish poisoning (marked by permanent loss of short-term memory), diarrheal shellfish poisoning, and paralytic shellfish poisoning.

**silver nitrate p.** Toxicity resulting from repeated exposure to silver compounds, marked by a bluish pigmentation of the skin or occasionally of the eyes. In the past, many medications contained biologically available silver; the incidence of this intoxication now, however, is very low. SEE: *argyria*.

**sodium fluoride p.** A reaction to exposure to a toxic dose of sodium fluoride, which is normally used in dentistry or in fluoridating water supplies. Symptoms include conjunctivitis, nausea, vomiting, kidney disturbances, and interference with blood coagulation.

**FIRST AID:** The affected areas of the skin should be washed and the compound precipitated by addition to the wash solution of soluble calcium salts such as lime water, calcium gluconate, or calcium lactate. SEE: *Poisons and Poisoning Appendix*.

**staphylococcal food p.** Poisoning by food containing any one of several heat-stable enterotoxins produced by certain strains of staphylococci. When ingested, the toxin causes nausea, vomiting, diarrhea, intestinal cramps, and, in severe cases, prostration and shock. The attack usually lasts less than a day. Fatalities are rare. Hygienic preparation techniques can prevent this form of food poisoning. People preparing foods should cook all foods thoroughly, refrigerate foods during storage, and wash hands and equipment and surfaces used in food preparation before and after handling foods. Certain foods (e.g., meat, poultry, fish, and those containing mayonnaise, eggs, or cream) should be refrigerated and used as soon as possible, and cooked until their internal temperatures equal or exceed safe limits.

**PATIENT CARE:** Patients who contract food poisoning should ingest clear fluids until abdominal pain subsides and then gradually return to a normal

diet. Fluid and electrolyte balance is monitored, and supportive therapy is maintained as indicated. Enteric precautions are used until evidence of infection subsides.

**stramonium p.** Accidental or intentional intoxication with the dried leaves of *Datura stramonium*, a powerful anticholinergic agent (containing belladonna alkaloids) that produces atropine-like effects. Common signs and symptoms include delirium and hallucinations, tachycardia and hypertension, fever, pupillary dilation, and, sometimes, seizures, coma, cardiac rhythm disturbances, or death. SEE: *atropine sulfate poisoning*.

**PATIENT CARE:** After the gastrointestinal tract is decontaminated with activated charcoal, stimulation of the intoxicated person should be minimized. Severely poisoned persons (e.g., those with seizures, extremely high body temperatures, or cardiac dysrhythmias) may be treated with intravenous physostigmine, given slowly.

**strychnine p.** Toxicity produced by ingestion of strychnine.

**PATIENT CARE:** Overdoses should be treated with gastric decontamination (e.g., activated charcoal) and drugs (e.g., diazepam) that limit muscular contraction. Supportive care includes intravenous hydration with alkalinization of the urine to prevent or treat the consequences of rhabdomyolysis. SEE: *Poisons and Poisoning Appendix*.

**sulfuric acid p.** Injury sustained from contact with, or ingestion of, sulfuric acid (e.g., in laboratories, agriculture, or weapons manufacturing).

**SYMPTOMS:** Early local effects of acid injury (e.g., necrosis of the skin or the upper gastrointestinal tract) result from direct contact of sulfuric acid with the epithelium. The patient may complain of intense pain (e.g., in the mouth or throat). If acid contacts the eye, it may cause pain and corneal injury, sometimes resulting in blindness. Several days to 2 weeks after massive acid ingestion, perforation of internal organs may occur. When the stomach is involved, the perforation may leak acid into the mediastinum or peritoneum, causing pain, dyspnea, hypotension, tachycardia, or shock.

**TREATMENT:** Exposed surfaces should be promptly washed in water to dilute the concentration of acid and minimize the depth of acid penetration. If the airway is compromised, the patient should be immediately intubated and ventilated, before undergoing dilutional therapy. Activated charcoal, which is helpful in many other exposures, is not useful. Neutralizing substances such as diluted alkalis are probably not helpful.

Most patients who ingest significant quantities of acid will undergo upper gastrointestinal endoscopy to evaluate the extent of the acid burn. Strictures (e.g., esophageal) that develop as a result of scarring from acid burns are treated with dilation. People with ocular exposures need immediate ophthalmological consultation. Immediate surgery is warranted for patients with internal organ perforation. SEE: *acids in Poisons and Poisoning Appendix*.



Blind nasogastric intubation is generally contraindicated because it may damage the upper gastrointestinal tract. Gastric intubation and lavage should be performed by experienced endoscopists.

**tellurium p.** A rare toxicity from the ingestion of tellurium, usually in the workplace. Characteristic findings include a strong garlicky odor of the mouth and excreta; dry skin and mouth; anorexia; weakness; and, in severe cases, respiratory or circulatory collapse. Treatment is supportive.

**thallium p.** Poisoning from ingesting thallium, characterized by severe abdominal pain, vomiting, diarrhea, tremors, delirium, convulsions, paralysis, coma, and death. SYN: *thallotoxicosis*. SEE: *Poisons and Poisoning Appendix*.

**theophylline p.** Poisoning due to excessive levels of theophylline-containing compounds in the blood, characterized by nausea, vomiting, agitation, cardiac arrhythmias, and, in some instances, seizures or death. For young patients with asthma, theophylline levels exceeding 20 mg/dl are typically toxic; even lower levels (e.g., 15 mg/dl) may produce toxic effects in people over 60. Theophylline levels above 30 mg/dl have a high likelihood of adverse effects at any age.

**PATIENT CARE:** Theophylline toxicity may occur if the patient's symptoms and drug levels while using theophylline-containing compounds are not monitored regularly. Many commonly used drugs such as cimetidine, ciprofloxacin, erythromycin, and rifampin alter the metabolism of theophylline and may produce toxic reactions if they are taken during theophylline therapy. They should be avoided. Because of the risk of theophylline poisoning, most patients with reactive airway diseases such as asthma or asthmatic bronchitis are treated with inhaled bronchodilators instead of theophylline.

The theophylline-poisoned patient may require monitoring in a critical care unit, where blood pressure and cardiac rhythm can be observed closely and early interventions taken in the case of

seizures or potentially fatal arrhythmias. Anticonvulsants are given for seizures (or to prevent seizures when theophylline levels exceed 100 mg/dl); the gastrointestinal tract should be decontaminated with activated charcoal, and antiarrhythmic drugs are administered, as indicated, for cardiac rhythm disturbances. Severe overdoses or ones with refractory symptoms should be treated with charcoal hemoperfusion.

**thiram p.** Toxic exposure to thiram. This may occur in those engaged either in manufacturing or applying this compound in agriculture.

**tin p.** Poisoning that results from exposure to organic compounds containing tin or tin arsenites. Most of the symptoms are neurological: changes in behavior, cognition, or awareness. Some toxic effects of tin are found on electroencephalographic examination.

**tincture of iodine p.** Iodine poisoning.

**toadstool p.** Mushroom poisoning.

**toluene p.** SEE: *benzene in Poisons and Poisoning Appendix.*

**turpentine p.** Toxicity resulting usually from inhalation of turpentine. SEE: *Poisons and Poisoning Appendix.*

**SYMPTOMS:** Symptoms include a warm or burning sensation in the esophagus and stomach, followed by cramping, vomiting, and diarrhea. Pulse and respiration become weak, slow, and irregular. Irritation of the urinary tract and central nervous system resembles alcoholic intoxication.

**FIRST AID:** The airway should be secured and breathing assessed. Other therapies are supportive (intravenous fluids, oxygen, etc.).

**p. by unknown substances** Cases in which there is no information concerning the nature of the poison taken, and the signs and symptoms are not recognized as being due to any particular substance. Specific antidotes cannot be given in this situation. There are, however, certain agents that act in a general manner and may be efficacious.

One of these is activated charcoal, which binds most organic toxins. Whole bowel irrigation can be used to flush ingested substances from the gastrointestinal tract. When dermal exposures are suspected, the patient should be showered to remove chemicals from the skin.

**verdigris p.** Poisoning due to ingestion of verdigris, which contains copper salts. Symptoms are identical to those caused by ingesting copper sulfate. SEE: *copper salts in Poisons and Poisoning Appendix.*

**warfarin p.** Excessive anticoagulation (e.g., resulting in bleeding or an increased risk of bleeding) caused by administration of an overdose of warfarin. SEE: *Poisons and Poisoning Appendix.*



Many drugs interact with warfarin, which may result in either excessive or inadequate anticoagulation. To prevent problems with clotting or bleeding, patients taking anticoagulants should consult with health care professionals before adding or deleting medicines from their drug regimens.

**PATIENT CARE:** The patient is instructed to observe for signs of bleeding such as epistaxis, bleeding gums, hematuria, hematochezia, hemetemesis, melena, and bleeding into the skin (ecchymosis, purpura, or petechia). The importance of regular blood tests (to assess the prothrombin time and international normalized ratio) and medical follow-up is stressed. Maintaining constant intake levels of foods containing vitamin K also is stressed, as intermittent intake can result in widely varied coagulation levels. The patient should wear or carry a medical identification tag listing the prescribed drug, dosage, and frequency of administration. Patients who have mild to moderately elevated INRs should be treated with vitamin K; patients who have serious bleeding and warfarin poisoning should be treated emergently with infusions of prothrombin complex concentrate, factor IX complex concentrate, and recombinant activated factor VII. If these are not readily available, fresh frozen plasma may be used.

**xylene p.** Injury to body tissues caused by a benzene-like compound. SEE: *benzene in Poisons and Poisoning Appendix.*

**zinc phosphide p.** Intoxication with zinc phosphide, a rodenticide that causes fatal lung and cardiac injury. There is no specific antidote.

**poisonous** (poy'zōn-ūs) [L. *potio*, a poisonous draft] Having the properties or qualities of a poison. SYN: *toxic; venomous.*

**poisonous plants** Plants containing a poisonous substance that may be fatal if ingested, including azalea, castor bean, chinaberry, European bitterweet, wild or black cherry, oleander, berries of holly and mistletoe, dieffenbachia, horse chestnuts, poison hemlock, laurel, death cup, black nightshade or deadly nightshade, rhododendron, choke cherry, Japanese yew, unripe fruit of akee, cassava roots, betel nut, seeds and pods of bird-of-paradise, belladonna, angels trumpet, fava bean (if eaten by a person with glucose-6-phosphate deficiency), foxglove, bulb of hyacinth, Indian tobacco, iris root, poinsettia, pokeweed, apricot kernels, apple seeds, green tubers and new sprouts of potatoes, privet, rhubarb leaves, wild tomatoes, skunk cabbage, and jimsonweed; and

- plants containing irritating substances, such as poison ivy, poison oak, and poison sumac.
- pokeroot** (pōk'root) An herb, *Phytolacca americana*, with white flowers and purple berries. The root is poisonous. Also called *poheweed*.
- Poland syndrome** (pō'līnd) A rare developmental anomaly in which one pectoralis muscle and the fingers on the same side of the body are hypoplastic or aplastic. The disease is not genetically transmitted but occurs spontaneously.
- polar** [L. *polaris*] Concerning a pole.
- polar body** A small nonfunctional cell produced in oogenesis resulting from the divisions of the primary and secondary oocytes.
- polarimeter** (pō'lār-īm'ē-tēr) [" + Gr. *metron*, measure] An instrument for measuring amount of polarization of light or rotation of polarized light.
- polarimetry** (pō'lār-īm'ē-trē) The measurement of the amount and rotation of polarized light.
- polariscope** (pō-lār'ī-skōp) [L. *polaris*, pole, + Gr. *skopein*, to examine] An apparatus used in the measurement of polarized light.
- polariscopy** (pō'lār-īs'kō-pē) The study of polarized light by the use of a polariscope.
- polarity** (pō-lār'ī-tē) **1.** The quality of having poles. **2.** The exhibition of opposite effects at the two extremities in physical therapy. **3.** The positive or negative state of an electrical battery. **4.** In cell division, the relation of cell constituents to the poles of the cell.
- polarity therapy** In alternative medicine, a massage technique to promote healing of the body by manipulating its electromagnetic currents. There is no objective validation of this method.
- polarization** (pō'lār-ī-zā'shūn) [L. *polaris*, pole] **1.** A condition in a ray of light in which vibrations occur in only one plane. **2.** In a galvanic battery, collection of hydrogen bubbles on the negative plate and oxygen on the positive plate, whereby generation of current is impeded. **3.** The electrical state that exists at the cell membrane of an excitable cell at rest; the inside is negatively charged in relation to the outside. The difference is created by the distribution of ions within the cell and in the extracellular fluid. SYN: *potential*, *resting*. SEE: *depolarization* for illus.
- polarizer** (pō'lār-īz'ēr) The part of a polariscope that polarizes light.
- pole** (pōl) [L. *polus*] **1.** The extremity of any axis about which forces acting on it are symmetrically disposed. SYN: *po-lus*. **2.** One of two points in a magnet, cell, or battery having opposite physical qualities. **3.** In biology, the regions around each endpoint of a diameter (esp. an axis) of a sphere.
- animal p.** The pole opposite the yolk in an ovum. At this point, polar bodies are formed and pinched off and protoplasm is concentrated and has its greatest activity.
- p. of the eye** The anterior and posterior extremities of the optic axis.
- frontal p.** The most forward tip of the frontal lobe of the cerebral hemisphere.
- germinal p.** The pole of an ovum at which the development begins.
- p. of the kidney** The upper and lower extremities of the kidney.
- occipital p.** The posterior extremity of the occipital lobe.
- pelvic p.** The breech of a fetus.
- placental p. of the chorion** The spot at which the domelike placenta is situated.
- temporal p.** The anterior extremity of the temporal lobe.
- policosanol** (pōl'ē-kōs'ān-ōl) A mixture of long-chain alcohols derived from sugar cane and other natural sources. It has been promoted as a natural lipid-lowering agent. Studies sponsored by the manufacturer of policosanol have shown striking results, but no effect on lipid levels was found during an independent trial performed in Germany.
- polio** *acute anterior poliomyelitis*.
- polio-** Combining form indicating *gray*.
- polioclastic** (pōl'ē-ō-klās'tik) [Gr. *polios*, gray, + *klastos*, breaking] Destructive to the gray matter of the nervous system.
- polioencephalitis** (pōl'ē-ō-ēn-sēf'ā-lī'tīs) [" + *enkephalos*, brain, + *itis*, inflammation] A condition characterized by inflammatory lesions of the gray matter of the brain.
- anterior superior p.** Inflammatory changes in the gray matter around the third ventricle, the anterior portion of the fourth ventricle, and the aqueduct of Sylvius. It is characterized by ocular abnormalities, mental disturbances, and ataxia. The origin of the disease is thiamine (vitamin B<sub>1</sub>) deficiency. SYN: *Korsakoff's syndrome*.
- p. hemorrhagica** Polioencephalitis accompanied by hemorrhagic lesions.
- posterior p.** Polioencephalitis involving the gray matter around the fourth ventricle.
- polioencephalomeningomyelitis** (pōl'ē-ō-ēn-sēf'āl-ō-mēn-in'gō-mī-ēl-ī'tīs) [" + " + *meninx*, membrane, + *myelos*, marrow, + *itis*, inflammation] Inflammation of the gray matter of the brain and spinal cord and their meninges.
- polioencephalomyelitis** (pōl'ē-ō-ēn-sēf'āl-ō-mī'ēl-ī'tīs) Inflammation of the gray matter of the brain and spinal cord.
- polioencephalopathy** (pōl'ē-ō-ēn-sēf'āl-ō-p'ā-thē) [Gr. *polios*, gray, + *enkephalos*, brain, + *pathos*, disease, suffer-



ing] Disease of the gray matter of the brain.

**poliomyelencephalitis** (pōl"ē-ō-mī"ēl-ēn-sēf"āl-ī'tis) [ " + *myelos*, marrow, + *enkephalos*, brain, + *itis*, inflammation] Poliomyelitis with polioencephalitis.

**poliomyelitis** (pōl"ē-ō-mī"ēl-ī'tis) [ " + " + *itis*, inflammation] An acute infectious inflammation of the anterior horns of the gray matter of the spinal cord.

**abortive p.** Poliomyelitis in which the illness is mild with no involvement of the central nervous system.

**acute anterior p.** An acute infectious inflammation of the anterior horns of the gray matter of the spinal cord, a rare illness in the U.S. since the introduction of effective polio vaccines. In this disease, paralysis may or may not occur. In the majority of patients, the disease is mild, being limited to respiratory and gastrointestinal symptoms, such constituting the minor illness or the abortive type, which lasts only a few days. In the major illness, muscle paralysis or weakness occurs with loss of superficial and deep reflexes. In such cases characteristic lesions are found in the gray matter of the spinal cord, medulla, motor area of cerebral cortex, and cerebellum.

**ETIOLOGY:** The causative agent is the poliovirus. The virus is excreted in the feces and remains viable for months outside the body. Three immunological types exist. The incubation period for infected people ranges from 5 to 35 days but is usually 7 to 12 days.

**SYMPTOMS:** The onset is often abrupt although the ordinary manifestations of a severe cold or constipation may come on gradually, accompanied by slight elevation of temperature, frequently enduring for not more than 3 days. At the end of this period, paralysis may or may not develop. The extent of paralysis necessarily depends on the degree of nerve involvement: paralysis may be confined to one small group of muscles or affect one or all extremities. When the pharyngeal or respiratory muscles are involved, death is likely to occur unless mechanical ventilation is provided. Extensor muscle paralysis is typical of the disease.

**DIFFERENTIAL DIAGNOSIS:** The various types of meningitis, postinfection encephalomyelitis, and, rarely, conversion disorders can be confused with polio.

**PROPHYLAXIS:** Active immunization with inactivated poliovirus vaccine has greatly reduced the incidence of paralytic poliomyelitis. SEE: *inactivated poliovirus vaccine*.

**COMPLICATIONS:** Paralysis and muscle atrophy are common long-term complications of paralytic polio.

**PROGNOSIS:** Ordinarily the outcome

is good (mortality less than 10%). When paralysis develops, 50% of the patients make a full recovery, and about 25% have mild permanent paralysis.

Progressive paralysis (postpolio syndrome) may occur years after the acute attack, often first appearing decades after the initial infection. SEE: *postpoliomyelitis muscular atrophy; postpolio syndrome*.

**INCIDENCE:** Poliomyelitis is endemic throughout the world but occurs in epidemics in poorer countries. Thanks to a worldwide effort to eradicate polio through mass vaccination, reported cases have declined from 350,000 annually about 25 years ago, to slightly more than 1000 cases in 2007. Polio no longer occurs in epidemics in the U.S. (virtually all cases for the last several years have been vaccine-associated). In countries where polio vaccine has not been used extensively, epidemics are seasonal, occurring in summer and fall. Children are more susceptible than adults. Infection is spread by direct contact with infected oropharyngeal secretions or feces, the virus probably entering the body via the mouth. It reaches the central nervous system through the blood.

**TREATMENT:** Treatment is supportive. Mechanical ventilation is used for patients whose respiratory muscles are paralyzed. Physical therapy is used to attain maximum function and prevent deformities that are late manifestations of the disease.

**PATIENT CARE:** Strict isolation with concurrent disinfection of throat discharge and feces is enforced to prevent transmission of poliovirus. A patent airway is maintained; the patient is observed closely for signs of respiratory distress; oxygen is administered as necessary, and intubation equipment or a tracheostomy tray should be available on a nearby crash-cart.

The patient should be kept on strict bedrest during the acute phase. Gentle passive range-of-motion exercises and application of hot moist packs at 20-min intervals (or tub baths for children) help alleviate muscle pain. Proper body alignment is maintained, and the patient turned frequently to prevent deformity and decubiti. A mild sedative or analgesic is administered to decrease pain and anxiety and to promote rest. The patient is observed for distended bladder due to transitory paralysis. Personal hygiene is provided, and oral hygiene is promoted. Standard precautions are employed to dispose of fecal excretions, which contain live virus. Fluids are provided orally (intravenously if necessary) to ensure adequate hydration and urinary output. Appetizing food is offered because ano-

rexia is common. Antipyretics are administered to reduce fever. Fluid and electrolyte balance and elimination are monitored closely. A foot board or T-foot supports are used to prevent footdrop. Emotional support is provided. A personalized rehabilitation program is developed to assist the patient in regaining the fullest possible function. Cases must be reported to the local health department and CDC.

**anterior p.** Inflammation of the anterior horns of the spinal cord.

**ascending p.** Poliomyelitis in which paralysis begins in the lower extremities and progresses up the legs, thighs, and trunk, and finally involves the respiratory muscles.

**bulbar p.** Poliomyelitis in which the gray matter of the medulla oblongata is involved, affecting respiratory nerves and muscles supplied by the cranial nerves, resulting in paralysis and usually respiratory failure.

**chronic anterior p.** Progressive wasting of the muscles; myelopathic progressive muscular atrophy.

**nonparalytic p.** Pain and stiffness in the muscles of the axial skeleton, esp. of the neck and back; mild fever; increased proteins and leukocytes in the cerebrospinal fluid. Diagnosis depends on the isolation of the virus and serological reactions.

**paralytic p.** Poliomyelitis with a variable combination of signs of damage of the central nervous system. These include weakness, incoordination, muscle tenderness and spasms, flaccid paralysis, and disturbance of consciousness. SEE: *postpolio syndrome*.

**provocative p.** During an epidemic of poliomyelitis, the onset of paralysis in the area close to the site of an invasive procedure. Thus an injection in muscle increases the risk of paralysis of the side of the body injected; and tonsillectomy and adenoidectomy increases the risk that poliomyelitis will affect the brain stem.

**poliosis** (pōl'ē-ō'sīs) [Gr. *polios*, gray, + *osis*, condition] Whiteness of the hair, esp. when due to a hereditary condition or as a result of infection. SYN: *canities*.

**poliovirus** (pō'lē-ō-vī'rūs) The etiological agent of poliomyelitis, separable into three serotypes based on the specificity of the neutralizing antibody. The three serotypes are types I, II, and III. A virus once found worldwide, it spreads directly or indirectly from infected persons or convalescent carriers. Epidemics of poliomyelitis that were characteristic of this virus have been greatly reduced by the poliovirus vaccine. SEE: *poliovirus vaccine, inactivated*.

**poliovirus vaccine, inactivated** ABBR: IPV. A poliovirus vaccine recom-

mended for the prevention of paralytic poliomyelitis. The vaccine, which contains inactivated types I, II, and III polioviruses, is suitable for parenteral administration to all infants and children.

Infants should be given three doses, the first at 2 months of age, followed by two more doses at 8-week intervals. A fourth dose should be given at age 18 months unless poliomyelitis is endemic in the area, in which case the fourth dose is given 6 to 12 months after the third. Additional doses are recommended prior to school entry and then every 5 years until age 18.

**poliovirus vaccine, live oral** ABBR: OPV. A standard preparation of one type or a combination of the three types of live, attenuated polioviruses. In 1999, an advisory panel to the Centers for Disease Control and Prevention recommended that live oral poliovirus no longer be used routinely because it has caused 8 to 10 cases of polio each year. This risk is no longer acceptable now that the polio epidemic has been eliminated in the U.S. SEE: *vaccine*.

**polishing** (pōl'ish-ing) Producing a smooth, glossy finish on a denture or a dental restoration.

**Politzer bag** (pōl'it-sēr) [Adam Politzer, Hungarian otologist, 1835–1920] A soft rubber bag with a rubber tip for inflating the middle ear by increasing the pressure in the nasopharynx. SEE: *aerotitis*.

**politization** (pōl'it-sēr-ī-zā'shūn) The inflation of the middle ear by means of a Politzer bag.

**pollen** (pōl'ēn) [L., dust] The microspores of a seed plant that develop in the anther at the tip of the stamen. Each pollen grain develops a pollen tube and constitutes the male gametophyte. Within it develops a tube nucleus and two sperm nuclei, which are the male reproductive cells. Many airborne pollens are allergens. SEE: *hay fever*.

**pollenogenic** (pōl'ēn-ō-jēn'īk) [*l'* + Gr. *gennan*, to produce] Caused by the pollen of plants, or producing plant pollen.

**pollex** (pōl'ēks) *pl.* **pollices** [L.] The thumb.

**p. extensus** Posterior deviation of the thumb.

**p. flexus** Permanent flexion of the thumb.

**p. valgus** Abnormal deviation of the thumb toward the ulnar side.

**p. varus** Abnormal deviation of the thumb toward the radial side.

**pollicization** (pōl'is-ī-zā'shūn) [L. *pollex*, thumb] The plastic surgical procedure of constructing a thumb from adjacent tissues.

**pollinosis** (pōl-in-ō'sīs) [L. *pollen*, dust, + Gr. *osis*, disease] Hay fever.

**pollo-** (pōl'ō) [Sp. *pollo*, chicken] Combining form meaning *poultry*.

**pollovegetarian** (pól"ō-věj"ī-tār"ē-in) [" + "] A person who eats a vegetarian diet supplemented by poultry products.

**pollute** (pū-loot') To ruin, contaminate, or spoil; to make something, such as water, food, or the environment, unfit for use or unsafe for living things.

**pollution** (pū-loo'shūn) [ME. *polluten*] The state of making impure or defiling.

**polocyte** (pō'lō-sīt) [Gr. *polos*, pole, + *kytos*, cell] Polar body.

**polonium** (pō-lō'nē-ūm) [L. *Polonia*, Poland, native country of its discoverers, the Curies] SYMB: Po. A radioactive element isolated from pitchblende; atomic weight 210; atomic number 84.

**POLST** *physician orders for life-sustaining therapy.*

**poly** (pól"ē) *polymorphonuclear leukocyte.*

**poly-** [Gr. *polys*, many] Combining form indicating *many, much.*

**polyacid** (pól"ē-ās'id) An alcohol or a base with two or more hydroxyl groups that will combine with an acid.

**polyacrylonitrile** (pól' i-āk' rī-lō-nī' trīl, trēl") A synthetic polymer used in the fabrication of dialysis membranes with high biocompatibility.

**polyadenitis** (pól"ē-ād"ē-nī'tīs) [" + Gr. *aden*, gland, + *itis*, inflammation] Inflammation of the lymph nodes, esp. the cervical lymph nodes.

**polyadenomatosis** (pól"ē-ād"ē-nō-mă-tō'sis) [" + " + *oma*, tumor, + *osis*, condition] Adenomas in many glands.

**polyadenopathy** (pól"ē-ād"ē-nōp'ă-thē) [" + " + *pathos*, disease, suffering] Any disease in which many glands are involved.

**polyadenous** (pól"ē-ād"ē-nūs) Involving or relating to many glands.

**polyagglutination** (pō-lē-a-glū-tī-nă'shūn) Red cells that are agglutinated by a large proportion of adult human sera regardless of blood group.

**polyalgia** (pól"ē-ăl-jē'zē-ă) [" + *algēsis*, sense of pain] A single stimulus of a part, producing sensation in many parts.

**polyamide** (pól"ē-ăm'id, id) [" + "] A polymer used in catheters, sutures, other biomedical devices, and clothing.

**polyandry** (pól"ē-ăn'drē) [Gr. *polyandria*] The practice of having more than one husband at the same time. SEE: *polygamy.*

**polyangiitis** (pól"ē-ăn"jē-ī'tīs) [Gr. *polys*, many, + *angeion*, vessel, + *itis*, inflammation] Inflammation of a number of blood vessels.

**polyarteritis nodosa** (pól"ē-ăr'tēr-ī'tīs) [" + *arteria*, artery, + *itis*, inflammation] ABBR: PAN. A form of vasculitis affecting medium and small arteries, particularly at the point of bifurcation and branching. Segmental inflammation and fibrinoid necrosis of blood vessels lead to diminished blood

flow (ischemia) to the areas normally supplied by these arteries. Although signs and symptoms depend on the location of the affected vessels and organs, patients usually present with symptoms of multisystem disease, including fever, malaise, weight loss, hypertension, renal failure, myalgia, peripheral neuritis, and gastrointestinal bleeding; these may occur episodically. Unlike most types of vasculitis, polyarteritis nodosa does not affect glomerular capillaries, although other renal vessels are involved. The disease is associated with hepatitis B and C, among other illnesses. SYN: *periarteritis nodosa*. SEE: *Nursing Diagnoses Appendix.*

**ETIOLOGY:** The cause is unknown, but the disease is associated with immunological disorders. Hepatitis B antigens are present in the blood of approx. 30% of patients.

**polyarthritis** (pól"ē-ăr-thrī'tīs) [" + *arthon*, joint + *itis*, inflammation] Inflammation of more than one joint, seen in rheumatoid arthritis, juvenile rheumatoid arthritis, and psoriatic arthritis. It usually refers to involvement of more than four joints. **polyarthritic** (pól"ē-ăr-thrī't'ik), *adj.*

**acute p. rheumatica** An obsolete term for acute rheumatic fever.

**chronic villous p.** Chronic inflammation of the synovial membrane of multiple joints.

**polyarticular** (pól"ē-ăr-tīk'ū-lăr) [" + L. *articulus*, a joint] Concerning, having, or affecting many joints. SYN: *multiar-ticular.*

**polyatomic** (pól"ē-ă-tōm'ik) [" + *atomon*, atom] Having several atoms.

**polyavitaminosis** (pól"ē-ă-vī'tă-mīn-ō'sis) [" + *a-*, not, + L. *vita*, life, + *amine* + Gr. *osis*, condition] A deficiency of more than one vitamin.

**polybasic** (pól"ē-bă'sik) [Gr. *polys*, many, + *basis*, base] Pert. to an acid with two or more hydrogen ions that will combine with a base.

**polyblennia** (pól"ē-blē'nē-ă) [" + *blennos*, mucus] Secretion of an abnormal amount of mucus.

**polybrominated diphenyl ethers** (pól"ē-brōm'ī-năt'ēd) ABBR: PBDE. A class of chemicals used as flame retardants. They are chemically related to polychlorinated biphenyls and are thought to have similar biological toxicity. They have been found in streams, marine animals, human fetuses, and human breast milk.

**polycarbonate** (pól"ē-kăr'bī-năt, -nīt) [" + "] A transparent polymer used to manufacture eye protectors, shields, and other medical devices.

**polycarophil** (pól"ē-kăr'bō-fīl) A hydrophilic substance that is used as a bulk-forming laxative.

**polycentric** (pól"ē-sēn'trīk) [" + *ken-*

*tron*, center] The condition of having many centers.

**polycheiria** (pōl"ē-kī'rē-ā) [" + *cheir*, hand] Having more than two hands.

**polychemotherapy** (pōl"ē-kē"mō-thēr'ā-pē) [" + *chemeia*, chemistry, + *therapeia*, treatment] Treatment with several chemotherapeutic agents at once.

**polychlorinated biphenyl** (pō-lē-klōr'ī-nā-tēd) ABBR: PCB. Any of a group of complex chemicals classed as chlorinated aromatic hydrocarbons. They were widely used in industry as a component of transformers and capacitors; in paints and hydraulic systems; and in carbonless NCR paper. Because of their extremely low rate of biodegradation, accumulation in animal tissues (particularly in adipose tissue), and their potential for chronic or delayed toxic effects, the manufacture of PCBs was discontinued in the U.S. in 1977.

**polychondritis** (pōl"ē-kōn-drī'tis) [" + *chondros*, cartilage, + *itis*, inflammation] Inflammation of several cartilaginous areas.

**relapsing p.** A rare inflammatory disease of cartilage associated with polyarthritis and involvement of the cartilage of the nose, ears, joints, bronchi, and trachea. It is most common between the ages of 40 and 60 years but may occur at any time. The cause is unknown. Because of the collapse of the bronchial walls, repeated infections of the lungs may occur, and death may result from respiratory compromise.

**TREATMENT:** Prednisone is the treatment of choice. Immunosuppressive drugs such as cyclophosphamide or azathioprine are used if patients fail to respond to prednisone. Heart valve replacement or repair of aortic aneurysm may be necessary.

**polychromasia** (pōl"ē-krō-mā'zē-ā) [" + *chroma*, color] The quality of having many colors.

**polychromatic** (pōl"ē-krō-māt'ik)

1. Multicolored. 2. Having a wide spectrum of energies or wavelengths; said of radiation.

**polychromatocyte** (pōl"ē-krō-māt'ō-sīt) [" + " + *kytos*, cell] A cell that has an affinity for various stains. SEE: *polychromatophilia* (1).

**polychromatophil(e)** (pōl"ē-krō-māt'ō-fil) [Gr. *polys*, many, + *chroma*, color, + *philein*, to love] A cell, esp. a red blood cell that is stainable with more than one kind of stain.

**polychromatophilia** (pōl"ē-krō-māt'ō-fil'ē-ā) 1. The quality of being stainable with more than one stain. 2. An excess of polychromatophils in the blood.

**polychyilia** (pōl"ē-kī'lē-ā) [" + *chylos*, juice] Excessive secretion of chyle.

**polychlinic** (pōl"ē-klīn'ik) [" + *kline*, bed] A hospital or clinic treating pa-

tients with various medical and surgical conditions; a general hospital.

**polyclonal** (pōl"ē-klōn'al) Arising from different cell lines.

**polycoria** (pōl"ē-kō'rē-ā) [" + *kore*, pupil] The state of having more than one pupil in one eye.

**polycrotic** (pōl"ē-krōt'ik) [" + *krotos*, beat] Having several pulse waves for each heartbeat.

**polycrotism** (pōl'ik'rō-tīzm) [" + " + *-ismos*, condition] The condition of having several pulse waves for each heartbeat.

**polycystic** (pōl"ē-sīs'tik) [" + *kystis*, cyst] Composed of many cysts.

**polycystic kidney disease** ABBR: PKD. Any of several hereditary disorders in which cysts form in the kidneys and other organs, eventually destroying kidney tissue and function. The autosomal recessive form usually appears in early childhood; the autosomal dominant form usually develops later in life. Definitive treatments are dialysis and kidney transplant. Because cerebral aneurysms are commonly found in adults with PKD, patients with this disorder are often screened with computed tomography or magnetic resonance imaging studies of the brain.

**polycystic ovary syndrome** Stein-Leventhal syndrome.

**polycythemia** (pōl"ē-sī-thē'mē-ā) [" + *kytos*, cell, + *haima*, blood] An excess of red blood cells. In a newborn, it may reflect hemoconcentration due to hypovolemia or prolonged intrauterine hypoxia, or hypervolemia due to intrauterine twin-to-twin transfusion or placental transfusion resulting in delayed clamping of the umbilical cord. SYN: *erythrocytosis*.

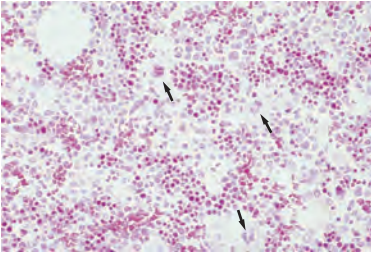
**relative p.** A relative (rather than an absolute) increase in the number of erythrocytes that occurs when plasma volume is reduced (e.g., in patients with burns or dehydration).

**secondary p.** Polycythemia resulting from some physiological condition that stimulates erythropoiesis, such as lowered oxygen tension in blood.

**spurious p.** Gaisböck's syndrome.

**p. vera** A chronic, life-shortening myeloproliferative disorder resulting from the reproduction of a single stem-cell clone; characterized by proliferation or hyperplasia of all bone marrow cells, with an increase in red blood cell mass and hemoglobin concentration that occurs independently of erythropoietin stimulation. SYN: *erythremia*. SEE: *illus.*; *Nursing Diagnoses Appendix*.

**SYMPTOMS:** Usually occurring between ages 40 and 60 and most common in males with Jewish ancestry, polycythemia seldom affects children or those of African ancestry. Weakness, fatigue, headache, blood clotting, vertigo, tinni-



### POLYCYTHEMIA VERA

Bone marrow showing hypercellularity and increased megakaryocytes (arrows)

tus, irritability, dyspnea, visual disturbances, flushing of face, redness, or ruddy cyanosis, pruritus, ecchymosis, hypertension, epigastric distress, weight loss, and pain in joints or extremities occur commonly. The bone marrow shows uncontrolled, rapid cellular reproduction and maturation (increased cellularity). Peptic ulcers are often reported.

**TREATMENT:** Permanent cure cannot be achieved today, but remissions of many years can be produced. Phlebotomy and myelosuppressive therapy (radioactive phosphorus [ $^{32}\text{P}$ ], cyclophosphamide, hydroxyurea, or melphalan) are used.

**PATIENT CARE:** Pheresis returns plasma to the patient, diluting blood volume and reducing hypovolemia. Vital signs are monitored throughout and following phlebotomy, the patient provided with oral fluids and protected from orthostatic hypotension. The symptoms and the need to seek medical attention when signs and symptoms of bleeding and thrombus formation occur are explained to the patient. Rest should be balanced with exercise, but the patient should be advised that activity and ambulation help to prevent thrombotic complications. Limbs should be protected from injury due to heat, cold, and pressure, and safety precautions, including use of a soft toothbrush, should be instituted to prevent injury. Reassurance and support are provided to the patient and family, and opportunities are provided for questions and discussion of concerns. During myelosuppressive therapy the patient is informed about adverse effects that may occur, assessed for leukopenia and thrombocytopenia, and protective measures are taught and instituted.

**polydactylism** (pŏl'ē-dāk'tī-līz-m) [Gr. *polys*, many, + *daktylos*, digit, + *-ismos*, condition] The state of having supernumerary fingers or toes.

**polydactyly** (pŏl'ē-dāk'tī-lē) [" + *daktylos*, finger] The condition of having

more than the normal number of fingers and toes.

**polydipsia** (pŏl'ē-dīp'sē-ă) [" + *dipsa*, thirst] Excessive thirst, a symptom that may suggest dehydration, hyperglycemia, or hypovolemia, among other diseases and conditions.

**polydrug use** (pŏ-lē-drŭg) In drug abusers, the practice of concurrent use of several dissimilar drugs, such as alcohol, cocaine, opiates, and other drugs. The toxic potential of multiple drug use is increased as compared with use of a single drug.

**polydysplasia** (pŏl'ē-dīs-plă'zē-ă) [" + *dys*, bad, + *plassein*, to form] The condition of having multiple developmental abnormalities.

**polydystrophic** (pŏl'ē-dīs-trŏ'fik) Concerning or having polydystrophy.

**polydystrophy** (pŏl'ē-dīs'trŏ-fē) [" + *trophe*, nourishment] The condition of having multiple congenital anomalies of the connective tissues.

**pseudo-Hurler p.** Mucopolipidosis type III.

**polyendocrine deficiency syndromes** (pŏ-lē-ēn'dō-krēn) *Type I:* A disease that begins at about age 12, characterized by hypoparathyroidism, primary adrenal insufficiency, and mucocutaneous candidiasis. Alopecia, pernicious anemia, malabsorption, and chronic hepatitis may also be present. *Type II:* A disease for which the average age of onset is about 30 years and which is characterized by primary adrenal insufficiency, autoimmune thyroid disease, and insulin-dependent diabetes mellitus. SYN: *autoimmune endocrine failure syndrome*.

**polyene** (pŏl-ē'ēn) An organic compound containing alternating, or conjugate, double bonds. An example is butadiene,  $\text{CH}_2=\text{CHCH}=\text{CH}_2$ .

**polyepitope** (pŏl'ē-ēp'i-tŏp) [" + "] A synthetic merger of immunogenic protein sequences, used (e.g., in the manufacture of vaccines).

**polyesthesia** (pŏl'ē-ēs-thē'zē-ă) [" + *aisthesis*, sensation] An abnormal sensation of touch in which a single stimulus is felt at two or more places.

**polyesthetic** (pŏl'ē-ēs-thēt'ik) 1. Pert. to polyesthesia. 2. Pert. to several senses or sensations.

**polyestrous** (pŏl'ē-ēs'trŭs) [" + *oistros*, mad desire] Having two or more estrous cycles in each mating season.

**polyethylene** (pŏl'ē-ēth'i-lēn) A polymerized resin of ethylene; used to make a wide variety of products, including tubing used in intravenous sets.

**polygalactia** (pŏl'ē-gă-lăk'shē-ă) [Gr. *polys*, many, + *gala*, milk] Excessive secretion or flow of milk.

**polygamy** (pŏ-līg'ă-mē) [" + *gamos*, marriage] The practice of having sev-



eral wives, husbands, or mates at the same time. SEE: *polyandry*; *polygyny*.

**polyganglionic** (pōl'ē-gāng'glē-ōn'ik) [ + *ganglion*, *ganglion*] Concerning many ganglia.

**polygastric** (pōl'ē-gās'trē-ă) [ + *gaster*, *stomach*] Excessive secretion or flow of gastric juice.

**polygen** (pōl'ē-jēn) 1. An element that has more than one valency and that can form more than one series of compounds. 2. An antigen that will cause the formation of two or more specific antibodies.

**polygenic** (pōl'ē-jēn'ik) [ + *gennan*, to produce] Pert. to or caused by several genes.

**polyglactin** (pōl'ē-glāk'tin) An absorbable polymer used to manufacture sutures and surgical mesh.

**polyglandular** (pōl'ē-glān'dū-lār) [ + *L. glandula*, a little kernel] Pert. to or affecting many glands. SYN: *pluriglandular*.

**polyglucosan** (pōl'ē-gloo'kō-sān) Glucose polymers. Abnormal collections of glucose polymers in tissue specimens are sometimes called "polyglucosan bodies," "Lafora bodies," or "corpora amyloidea."

**polyglucose, poly-D-glucose** (pōl'ē-gloo'kōs) A water-soluble polymer made of linked dextrose subunits. It is used as a peritoneal dialysis solution and as a sweetener in foods.

**polyglycolic acid** (pō-lē-glī-kōl'ik) A polymer of glycolic acid anhydride units. It is used to manufacture surgical sutures, clips, and mesh.

**polygnathus** (pō-lig'nā-thūs) [ + *gnathos*, jaw] Conjoined twins of unequal size in which the smaller is attached to the jaw of the larger.

**polygram** (pōl'ē-grām) [ + *gramma*, something written] A tracing or record made by a polygraph.

**polygraph** (pōl'ē-grāf) [ + *graphein*, to write] An instrument for determining minor physiological changes assumed to occur under the stress of lying (or any other emotion). Variations in respiratory rhythm, pulse rate, blood pressure, and sweating of the hands are among the functions that are monitored. Increased perspiration lessens resistance to passage of electrical current. The test has popular appeal among law enforcement departments, but results obtained are presumptive and not absolute; nevertheless, interpretations of polygraph data have been admitted as evidence in some legal proceedings. The advisability of accepting the results of polygraph tests is controversial. SYN: *sphygmograph*.

**polygyny** (pō-lig'ō-nē) The practice of having more than one female mate at a time. SEE: *polygamy*.

**polygyria** (pōl'ē-jī'rē-ă) [ + *gyros*, cir-

cle] Excess of the normal number of convolutions in the brain.

**polyhedral** (pōl'ē-hē'drāl) [Gr. *polys*, many, + *hedra*, base] Having many surfaces.

**polyhistor** (pōl'ē-hīs'tūr) [ + *histor*, learned] A scholar or physician who has great and varied abilities and knowledge (e.g., Hippocrates, Galen, Paracelsus, Leonardo da Vinci, Boerhaave, Sir William Osler, Richard Mead, and Thomas Jefferson).

**polyhybrid** (pōl'ē-hī'brīd) [ + *L. hybrida*, mongrel] The offspring of parents that are different with respect to three or more characteristics.

**polyhydramnios** (pōl'ē-hī-drām'nē-ōs) [ + *hydor*, water, + *amnion*, amnion] A condition in which the volume of amniotic fluid exceeds 2000 ml during the last half of pregnancy. Acute polyhydramnios occurs suddenly between 20 and 24 weeks' gestation and is marked by a rapid (within a few days) increase in volume. Chronic polyhydramnios, a continuous, gradual increase in volume throughout the last trimester, is more common. Uterine overdistention may result in preterm labor.

**ETIOLOGY:** The cause is unknown; however, the condition occurs more frequently in association with congenital fetal anomalies that interfere with swallowing, in anencephaly, in monozygotic multiple gestation, and in 10% of pregnancies in diabetic women.

**SYMPTOMS:** Suspicious clinical signs include a taut abdomen, a fundal height increased out of proportion to gestation, and difficulty in auscultating the fetal heart rate. When the amniotic fluid volume exceeds 3000 ml, interference with diaphragmatic excursion and vena caval compression are reflected in maternal shortness of breath and increased dependent edema.

**DIAGNOSIS:** Ultrasonography confirms the presence of polyhydramnios and will identify fetal anomalies such as anencephaly or exposed fetal meninges.

**TREATMENT:** Amniocentesis is performed to reduce the amniotic volume in women who are experiencing severe discomfort and/or respiratory embarrassment. In most cases, however, conservative management includes bedrest in the left lateral position to encourage placental perfusion and diuresis.

**polyhydruria** (pōl'ē-hī-droo'rē-ă) [ + *ouron*, urine] An excessive amount of water in the urine.

**polyhypermenorrhea** (pōl'ē-hī'pēr-mēn'ō-rē-ă) [ + *hyper*, over, + *men*, month, + *rhoia*, flow] Frequent menstruation with excessive discharge.

**polyhypomenorrhea** (pōl'ē-hī'pō-mēn'ō-rē-ă) [ + *hypo*, under, + *men*, month, + *rhoia*, flow] Frequent menstruation with scanty discharge.

**polyidrosis** (pōl'ē-īd-rō'sīs) [" + *hidrosis*, sweat] Hyperhidrosis.

**polyinfection** (pōl'ē-īn-fēk'shūn) [" + ME. *infecten*, infect] Infection with two or more microorganisms. SYN: *multi-infection*.

**polykaryocyte** (pōl'ē-kār'ē-ō-sīt) [" + *karyon*, nucleus, + *kytos*, cell] A cell possessing several nuclei.

**polylysine** (pōl'ē-lī'sīn) A polypeptide in which two lysine molecules are joined.

**polymastia** (pōl'ē-mās'tē-ā) [Gr. *polys*, many, + *mastos*, breast] The condition of having more than two breasts. SYN: *multimammae*.

**polymastigote** (pōl'ē-mās'tī-gōt) [" + *mastix*, whip] Possessing several flagella.

**polymelia** (pōl'ē-mē'lē-ā) [" + *melos*, limb] A congenital abnormality in which there are supernumerary limbs.

**polymelus** (pō-līm'ē-lūs) [" + *melos*, limb] One having polymelia.

**polymenorrhea** (pōl'ē-mēn-ō-rē-ā) [" + " + *rhoia*, to flow] Menstrual bleeding that occurs regularly, but at intervals of less than 21 days.

**polymer** (pōl'ī-mēr) [" + *meros*, a part] A natural or synthetic substance formed by a combination of two or more molecules (and up to millions) of the same substance. SYN: *polymerid*.

**polymerase** (pōl-īm'ēr-ās) An enzyme that catalyzes polymerization of nucleotides to form DNA molecules before cell division, or RNA molecules before protein synthesis.

**RNA p.** Transcriptase.

**polymerase chain reaction** ABR: PCR. A process that permits making, in the laboratory, unlimited numbers of copies of genes. This is done beginning with a single molecule of the genetic material DNA. The technique can be used in investigating and diagnosing numerous bacterial diseases, viruses associated with cancer, genetic diseases such as diabetes mellitus, human immunodeficiency virus, pemphigus vulgaris, and various diseases of the blood (e.g., sickle cell anemia) and of muscles.

**polymer fume fever** Condition resulting from breathing fumes produced by certain polymers when they are heated to 300° to 700°C or higher. Symptoms include a tight gripping sensation of the chest associated with shivering, sore throat, fever, and weakness. Treatment consists of discontinuance of exposure to fumes. SEE: *metal fume fever*.

**polymeria** (pōl-ī-mē'rē-ā) The condition of having more than normal number of parts. SYN: *polymerism*.

**polymeric** (pōl'ī-mēr'īk) 1. Having the characteristics of a polymer. 2. Muscles derived from more than one myotome. 3. Consisting of repeating, linked elements.

**polymerid** (pō-līm'ēr-īd) Polymer.

**polymerism** (pōl'ī-mēr'īzm, pō-līm'ēr-izm) [" + *meros*, part, + *-ismos*, condition] Polymeria.

**polymerization** (pōl'ī-mēr'ī-zā'shūn) The process of changing a simple chemical substance or substances into another compound having the same elements usually in the same proportions but with a higher molecular weight.

**polymerize** (pōl'ī-mēr-īz) To cause polymerization.

**polymerosome** (pōl'ī-mēr-sōm) A vesicle made artificially of linked, helix-shaped proteins.

**polymethyl methacrylate** (pōl'ī-mēth'īl mēth-āk'rī-lāt) A synthetic polymer used in the fabrication of dialysis membranes with high biocompatibility.

**polymicrobial** (pōl'ē-mīkrō'bē-āl) [Gr. *polys*, many, + *mikros*, small, + *bios*, life] Concerning a number of species of microorganisms.

**polymicrobial infections** (pō-lē-mīkrō-bīk) Bacterial infections caused by two or more different microorganisms.

**polymicrogyria** (pōl'ē-mīkrō'jī-rē-ā) [" + " + *gyros*, convolution] A developmental malformation of the brain in which the gyri form with abnormally small convolutions. It often results from chromosomal deletions, e.g., from chromosome 22.

**polymorph** (pōl'ē-morf) [" + *morphe*, form] A polymorphonuclear leukocyte.

**polymorphic** (pō-lē-mōr-fīk) Occurring in more than one form. SYN: *multiform*; *polymorphous*.

**polymorphism** (pō-lē-mōr-fīzm) [" + *morphe*, form, + *-ismos*, condition] 1. The property of crystallizing into two or more different forms. 2. The occurrence of more than one form in a life cycle. 3. An allelic variation within a species. SYN: *pleomorphism*.

**restriction fragment length p.** DNA fingerprinting with a specific nucleotide insertion sequence.

**polymorphocellular** (pōl'ē-mōr'fō-sēl'ū-lār) [" + " + L. *cellula*, a small chamber] Composed of cells of many forms.

**polymorphonuclear** (pōl'ē-mōr'fō-nū'klē-ār) [" + " + L. *nucleus*, a kernel] Possessing a nucleus consisting of several parts or lobes connected by fine strands.

**polymorphous** (pōl'ē-mōr'fūs) Polymorphic.

**polymorphous light eruption, polymorphic light eruption** ABR: PMLE. A rash occurring after exposure to sunlight, typically consisting of papules, plaques, or papulovesicles on sun-exposed skin. It is more common in fair-skinned patients and in women than in men or people with darker skin color. The rash is usually itchy but may produce a burning or stinging sensation. Avoiding sun exposure with protective

clothing and sunblock helps prevent PMLE. Immune-modulating drugs are available for refractory cases.

**polymyalgia arteritica** (pŏl"ē-mī-äl'jē-ă) [" + *mys*, muscle, + *algos*, pain] Polymyalgia rheumatica.

**polymyalgia rheumatica** ABBR: PMR. A rheumatologic illness marked by fevers, malaise, weight loss, muscle pain and stiffness (esp. of the shoulders and pelvis), and morning stiffness. It occurs primarily, but not exclusively, in white individuals over age 60. The cause of the syndrome is unknown. Although there is no single diagnostic test for this condition, patients typically have a markedly elevated erythrocyte sedimentation rate (>50 mm/hr) and no evidence of another disease (e.g., infection, cancer, rheumatoid arthritis, or lupus) as the underlying cause. Patients with the syndrome obtain rapid and durable relief from corticosteroids but usually require a course of treatment lasting 6 to 18 months. Pathologically, and sometimes clinically, the syndrome is related to giant cell arteritis. Mild cases may sometimes respond to nonsteroidal anti-inflammatory drugs. SYN: *polymyalgia arteritica*.

**polymyoclonus** (pŏl"ē-mī-ŏk'lŏ-nūs) [" + " + *klonos*, tumult] Paramyoclonus multiplex.

**polymyositis** (pŏl"ē-mī"ŏ-sī'tis) [" + " + *itis*, inflammation] A relatively uncommon inflammatory disease of skeletal muscles, marked by symmetrical weakness of the proximal muscles of the limbs, elevated serum muscle enzymes, evidence of muscle necrosis on biopsy, and electromyographic abnormalities.

**PATIENT CARE:** Treatment regimens may include corticosteroids, methotrexate, or other immunosuppressive agents. Physical therapy is employed after disease activity lessens.

**polymyxins** (pŏl"ē-mīk'sin) [" + "] Any of the group of cationic polypeptide antibiotics produced by the bacterium *Bacillus polymyxa*. Although these antibiotics are toxic to the brain and kidney and are poorly absorbed from the gastrointestinal tract, they are occasionally used to treat resistant infections caused by gram-negative microorganisms.

**polyneuronal** (pŏl"ē-nū-rāl) [" + *neuron*, nerve, sinew] Pert. to, innervated, or supplied by many nerves.

**polyneuralgia** (pŏl"ē-nū-rāl'jē-ă) [" + " + *algos*, pain] Pain that emanates from several nerves at the same time.

**polyneuritic** (pŏl"ē-nū-rī'tik) [" + " + *itis*, inflammation] Inflammation of several nerves at once.

**polyneuritis** (pŏl"ē-nū-rī'tis) [" + " + *itis*, inflammation] Multiple neuritis.

**acute idiopathic p.** Guillain-Barré syndrome.

**diabetic p.** Diabetic neuropathy.

**Jamaica ginger p.** Jamaica ginger paralysis.

**metabolic p.** Polyneuritis resulting from metabolic disorders such as nutritional deficiency, esp. the lack of thiamine; gastrointestinal disorders; or pathologic conditions such as diabetes, pernicious anemia, and toxemias of pregnancy.

**toxic p.** Polyneuritis resulting from poisons such as heavy metals, alcohol, carbon monoxide, or various organic compounds.

**polyneuromyositis** (pŏl"ē-nū'rŏ-mī"ŏ-sī'tis) [" + " + *mys*, muscle, + *itis*, inflammation] A disease in which polyneuritis and polymyositis occur together.

**polyneuropathy** (pŏl"ē-nū-rŏp'ă-thē) [Gr. *polys*, many, + *neuron*, nerve, sinew, + *pathos*, disease, suffering] Any disease that affects multiple peripheral nerves.

**acute inflammatory p.** Guillain-Barré syndrome.

**amyloid p.** Polyneuropathy characterized by deposition of amyloid in nerves.

**chronic inflammatory demyelinating p.** ABBR: CIDP. A gradually progressing autoimmune muscle weakness in arms and legs caused by inflammation of the myelin sheath covering peripheral nerve axons. Myelin destruction (demyelination) slows or blocks conduction of impulses to muscles. Numbness and paresthesia may accompany or precede loss of motor function, which varies from mild to severe. Laboratory findings include elevated protein levels in the cerebrospinal fluid. The inflammatory damage involves not only phagocytes (neutrophils and macrophages), but also immune complexes and complement activation by myelin autoantigens. Immunosuppressive drugs are used to treat this illness. Plasma exchange therapy or infusions of immunoglobulins often are used first, to produce a remission. CIDP is considered to be a chronic counterpart to Guillain-Barré syndrome.

**critical illness p.** ABBR: CIP. A complication occurring in patients in intensive care in which failure to wean from mechanical ventilation is associated with distal limb weakness, loss of distal sensation from light touch or pinprick, and diminished reflexes; facial muscles and nerves are spared. Recovery typically occurs several weeks or months after resolution of the underlying disease.

**diabetic p.** Diabetic neuropathy.

**familial amyloidotic p.** An inherited form of amyloid polyneuropathy in which abnormal forms of transthyretin are deposited in nerves and brain tissue, making multiple nerves malfunction.

**paraproteinemic p.** Nerve damage caused by excessive levels of immunoglobulin in the blood. The most commonly implicated immunoglobulins are IgM and IgG.

**porphyric p.** Polyneuropathy resulting from acute porphyria, characterized by pains and paresthesias in the extremities and by flaccid paralysis.

**progressive hypertrophic p.** Déjérine-Sottas disease.

**polyneuroradiculitis** (pōl"ē-nū"rō-rā-dīk"ū-lī'tīs) [l' + " + *radix*, root, + *itis*, inflammation] Inflammation of the nerve roots, the peripheral nerves, and spinal ganglia.

**polynuclear, polynucleate** (pōl"ē-nū'klē-ār,-āt) [l' + L. *nucleus*, a kernel] Possessing more than one nucleus. SYN: *multinuclear*; *multinucleate*.

**polynucleotidase** (pōl"ē-nū'klē-ō'tī-dās) An enzyme present in intestinal mucosa and intestinal juice that catalyzes the breakdown of nucleic acid to nucleotides.

**polynucleotide** (pōl"ē-nū'klē-ō-tīd) Nucleic acid composed of two or more nucleotides.

**polynucleotide kinase** ABBR: PNK. An enzyme that facilitates the transfer of a phosphate group from adenosine triphosphate to the 5' terminus of a nucleic acid (RNA or DNA).

**polyodontia** (pōl"ē-ō-dōn'shē-ā) [l' + *odous*, tooth] The state of having supernumerary teeth.

**polyolefin** (pōl"ē-ō'lē-fīn) [Gr. *poly-*, much, many, + L. *oleum*, oil] A flexible, synthetic hydrocarbon polymer. Its health-related uses include storage bags and containers for blood components, infusion devices and tubes for intravenous fluids, and prosthetic body parts.

**polyomavirus** (pōl"ē-ō-mā-vī'rūs) A double-stranded DNA virus that causes kidney, nerve, and lymphoid disease in humans.

**polyonychia** (pōl"ē-ō-nīk'ē-ā) [l' + *onyx*, nail] Having an excessive number of nails. SYN: *polyunguia*.

**polyopia, polyopsia** (pōl"ē-ō'pē-ā,-ōp'sē-ā) [l' + *opsis*, vision] Multiple vision; perception of more than one image of the same object.

**polyorchidism** (pōl"ē-or'kī-dīzm) [l' + *orchis*, testicle, + *-ismos*, condition] The condition of having more than two testicles.

**polyorchis** (pōl"ē-or'kīs) An individual with more than two testicles.

**polyostotic** (pōl"ē-ōs-tōt'īk) [l' + *osteon*, bone] Involving several bones.

**polyotia** (pōl"ē-ō'shē-ā) [l' + *ous*, ear] The state of having more than two ears.

**polyovulatory** (pōl"ē-ōv'ū-lā-tō'rē) [l' + L. *ovulum*, little egg] Releasing several ova in a single ovulatory cycle.

**polyoxyl stearate** (pōl"ē-ōks'īl) Any of

several polyoxyethylene stearates. They have varying lengths of the polymer chain (e.g., polyoxyl 8 stearate and polyoxyl 40 stearate have polymer lengths of 8 and 40, respectively). They are non-ionic surface-active agents that are useful emulsifiers.

**polyp** (pōl'īp) [Gr. *polypous*, many-footed] A swelling or excrescence (tumor) emanating from a mucous membrane; commonly found in vascular organs such as the nose, uterus, colon, and rectum. Polyps bleed easily; if there is a possibility that they will become malignant, they should be removed surgically. SYN: *polypus*.

**adenomatous p.** Benign neoplastic tissue originating in the glandular epithelium.

**antrochoanal p.** A nasal polyp found near the posterior wall of the maxillary sinus.

**aural p.** Polypoid granulation tissue in the external canal of the ear attached to the tympanic membrane or middle ear structures.

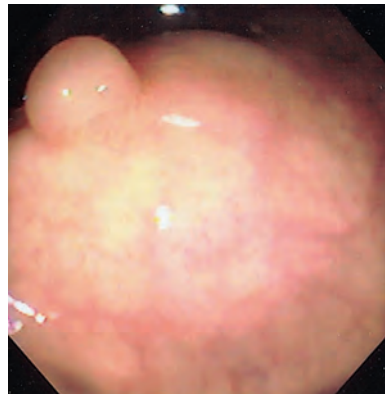
**bleeding p.** An angioma of the nasal mucous membrane.

**cardiac p.** A pedunculated tumor attached to the inside of the heart. If situated close to a valve, it may cause blockage of the valve intermittently.

**cervical p.** A fibrous or mucous polyp of the cervical mucosa.

**choanal p.** A nasal polyp that extends into the pharynx.

**colonic p.** An abnormal tissue growth within the lumen of the colon. It may be benign or malignant. SEE: *illius*.

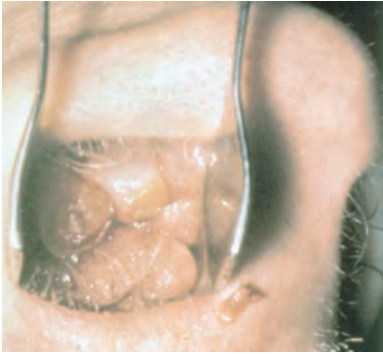


POLYPS

Polyps in the colon, seen endoscopically

**fibrinous p.** A polyp containing fibrin and blood, located in the uterine cavity.

**fibroepithelial p.** A smooth-surfaced polyp of the oral mucosa, usually developing after trauma to the area. SEE: *ac-rochordon*.



NASAL POLYPS

**fleshy p.** A submucous myoma in the uterus.

**gelatinous p.** 1. A polyp made up of loose swollen edematous tissue. 2. A myxoma.

**Hopmann's p.** A papillary growth of the nasal mucosa.

**hydatid p.** A cystic polyp.

**juvenile p.** A benign rounded mucosal hamartoma of the large bowel. This type of polyp may be present in large numbers in infants and is commonly associated with rectal bleeding. SYN: *retention polyp*.

**laryngeal p.** A polyp attached to the vocal cords and extending to the air passageway.

**lymphoid p.** A benign lymphoma of the rectum.

**mucous p.** A polyp of soft or jelly-like consistency and exhibiting mucoid degeneration.

**nasal p.** A pedunculated polyp of the nasal mucosa. SEE: *illus.*

Nasal polyps are the most commonly identified nonmalignant tumor of the nasal passages. They are more commonly identified in men than in women.

**SYMPTOMS:** The most common symptom of nasal polyposis is obstruction to the flow of air into and out of the nasal passages. SEE: *illus.*

**TREATMENT:** Steroid nasal sprays may improve airflow through the nasal passages. Surgical removal of polyps may occasionally be necessary when medical treatment is unsuccessful.

**placental p.** A polyp composed of retained placental tissue.

**retention p.** Juvenile polyp.

**vascular p.** A pedunculated angioma.

**polypapilloma** (pŏl"ē-păp"i-lŏ'mă) [Gr. *polys*, many, + L. *papilla*, nipple, + Gr. *oma*, tumor] Yaws.

**polypectomy** (pŏl"ē-pĕk'tŏ-mĕ) [" + *pous*, foot, + *ektome*, excision] The surgical removal of a polyp. In the U.S., about 1 million colonic polypectomies are performed each year.

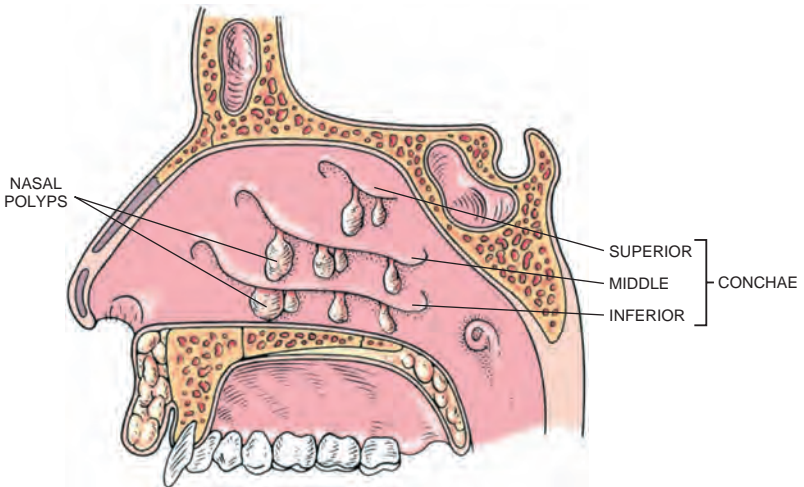
**polypeptidase** (pŏl"ē-pĕp'ti-dās) An enzyme that catalyzes the hydrolysis of peptides.

**polypeptide** (pŏl"ē-pĕp'tid) [" + *pep-tein*, to digest] A union of two or more amino acids. SEE: *peptide*.

**polypeptidorrhachia** (pŏl"ē-pĕp'ti-dŏ-ră'kĕ-ă) [" + " + *rhachis*, spine] The presence of polypeptides in the cerebrospinal fluid.

**polyphagia** (pŏl"ē-fă'jĕ-ă) [Gr. *polys*, many, + *phagein*, to eat] Eating abnormally large amounts of food; gluttony.

**polyphalangism** (pŏl"ē-fă-lăn'jizm) [" +



NASAL POLYPS



*phalanx*, closely knit row, + *-ismos*, condition] Hyperphalagism.

**polypharmacy** (pōl'ē-fār mā-sē) [" + *pharmakon*, drug] **1.** Concurrent use of a large number of drugs. It increases the likelihood of unwanted side effects and adverse drug-to-drug interactions.

**PATIENT CARE:** The more complicated an illness, and the more illnesses one suffers, the greater the likelihood that a patient will have a complex, difficult to manage, and costly drug regimen. Any person taking more than one medication should keep a careful record of all of his drug therapies, including how often they are taken, for what purpose, and by whom they have been prescribed. The medical regimen should be reviewed at each visit with health care professionals to avoid misunderstandings and prescribing errors. Frequent physical examinations and laboratory studies may be needed to ensure that complex drug regimens are not causing preventable side effects. Medical regimens should be simplified whenever possible to those with the greatest beneficial effect and the least likelihood of causing harm.

**2.** Excessive use of drugs.

**polyphenol** (pōl'ē-fē'nōl) [" + "] Any of a group of colorful phytochemicals, many of which are antioxidants.

**polyphenoloxidase** (pōl'ē-fē'nōl-ōk'sī-dās) An enzyme present in bacteria, fungi, and some plants that catalyzes the oxidation of polyphenols, but not monophenols such as tyrosine, to quinones.

**polyphrasia** (pōl'ē-frā'zē-ā) [" + *phrasis*, speech] Excessive talkativeness.

**polyphyletic** (pōl'ē-fi-lēt'īk) [" + *phyle*, tribe] Having more than one origin; opposite of monophyletic.

**polyphyodont** (pōl'ē-fi'ō-dōnt) [" + *phyein*, to produce, + *odous*, tooth] Developing more than two sets of teeth at intervals during a lifetime.

**polypiform** (pō-līp'ī-form) [" + *pous*, foot, + *L. forma*, form] Resembling a polyp.

**polypill** [" + *L. pilula*, a small mass] **1.** A pill that contains a mixture of health-promoting ingredients. **2.** A panacea.

**polyplastic** (pōl'ī-plās'tīk) [" + *plastos*, formed] **1.** Having had many evolutionary modifications. **2.** Having many substances in the cellular composition.

**polyplegia** (pōl'ē-plē'jē-ā) [" + *plege*, stroke] Paralysis affecting several muscles.

**polyploid** (pōl'ē-ployd) **1.** Characterized by polyploidy. **2.** An individual in which the chromosome number is two or more times the normal haploid number.

**polyploidy** (pōl'ē-ploy'dē) A condition in which the chromosome number is two or

more times the normal haploid number found in gametes.

**polypnea** (pōl'īp-nē-ā) [" + *pnoia*, breath] Panting.

**polypodia** (pōl'ē-pō'dē-ā) [" + *pous*, foot] Possession of more than the normal number of feet.

**polypoid** (pōl'ē-poyd) [" + " + *eidos*, form, shape] Like a polyp.

**polyposia** (pōl'ē-pō'zē-ā) [" + *posis*, drinking] The sustained ingestion of large amounts of fluid.

**polyposis** (pōl'ē-pō'sīs) [" + *GR. pous*, foot, + "] Any disease resulting in the growth of multiple polyps.

**p. coli** Polyposis of the large intestine.

**familial adenomatous p.** SEE: *familial adenomatous polyposis*.

**multiple intestinal p.** Familial adenomatous polyposis.

**p. ventriculi** The presence of numerous polyps in the stomach, sometimes involving the entire mucosa, accompanied by chronic atrophic gastritis.

**polyprotein** (pōl'ī-prō'tēn') [" + "] A polypeptide that contains the linked transcripts of several proteins. Cleavage of the polypeptide releases the contained protein sequences.

**polyptychial** (pōl'ē-tī'kē-āl) [" + *ptyche*, fold] Arranged in several layers, as is the case in some glands.

**polypus** (pōl'ī-pūs) *pl. polypi* [L.] Polyp.

**polyradiculitis** (pōl'ē-rā-dīk'ū-lī'tīs) [" + *L. radix*, root, + *Gr. itis*, inflammation] Inflammation of nerve roots, esp. the roots of spinal nerves. SEE: *Nursing Diagnoses Appendix*.

**polyradiculoneuritis** (pōl'ē-rā-dīk'ū-lō-nū-rī'tīs) [" + " + *Gr. neuron*, nerve, + *itis*, inflammation] Inflammation of the peripheral nerves and spinal ganglia.

**polyradiculopathy, acute inflammatory** (pō-lē-rā-dī-kū-lō-pā-thē) Guillain-Barré syndrome.

**polyribosome** (pōl'ē-rī'bō-sōm) A cluster or group of ribosomes. They are the site of attachment for mRNA in the cytoplasm and the translation of genetic information into the synthesis of specific proteins. SYN: *polysome*.

**polyrrhea, polyrrhoea** (pōl'ē-rē-ā) [" + *rhoia*, flow] The excessive secretion of fluid.

**polysaccharide** (pōl'ē-sāk'ā-rīd) [" + Sanskrit *sarkara*, sugar] One of a group of carbohydrates that, upon hydrolysis, yield more than 20 monosaccharide molecules. They are complex carbohydrates of high molecular weight, usually insoluble in water, but when soluble, they form colloidal solutions. Their basic formula is (C<sub>6</sub>H<sub>12</sub>O<sub>6</sub>)<sub>n</sub>. They include two groups: starch (e.g., starch, inulin, glycogen, dextrin) and cellulose (e.g., cellulose and hemicelluloses). The hemicelluloses include the pentosans

- (e.g., gum arabic), hexosans (e.g., agar-agar), and hexopentosans (e.g., pectin). SEE: *carbohydrate; disaccharide; monosaccharide*.
- immune p.** Polysaccharides in bacteria, esp. in the cell wall, that are antigenic.
- polysaccharose** (pŏl'ē-sāk'ā-rōs) A polysaccharide.
- polyserositis** (pŏl'ē-sē-rō-sī'tis) [" + L. *serum*, whey, + *itis*, inflammation] Inflammation of several serous membranes simultaneously. SYN: *Concato's disease*.
- recurrent p.** Familial Mediterranean fever.
- polysinusitis, polysinusitis** (pŏl'ē-sī'nūs-ī'tis, -nū-ī'tis) [" + L. *sinus*, a hollow, + Gr. *itis*, inflammation] Inflammation of several sinuses simultaneously.
- polysomaty** (pŏl'ē-sō'mā-tē) [" + *soma*, body] Having reduplicated chromatin in the nucleus.
- polysome** (pŏl'ē-sōm) Polyribosome.
- polysomia** (pŏl'ē-sō'mē-ā) [" + *soma*, body] Having more than one body, as in the doubling of the body of a fetus.
- polysomnographer** (pŏl'ē-sōm-nŏg'rā-fēr) Sleep technologist.
- polysomnography** (pŏ-lē-sōm-nŏ-grā-fē) The simultaneous monitoring of respiratory, cardiac, muscle, brain, and ocular function during sleep. It is used most often to diagnose sleep apnea.
- polysorbates** (pŏl'ē-sor'bāts) Nonionic surface-active agents composed of polyoxyethylene esters of sorbitol. They usually contain associated fatty acids. The series includes polysorbates 20, 40, 60, and 80, which are used in preparing pharmaceuticals. These polysorbates have the trade names of Tween 20, Tween 40, and so forth.
- polyspermia** (pŏl'ē-spēr'mē-ā) [Gr. *polys*, many, + *sperma*, seed] 1. The excessive secretion of seminal fluid. 2. The entrance of several spermatozoa into one ovum. SYN: *polyspermism*.
- polyspermism** (pŏl'ē-spēr'm'izm) Polyspermia (2).
- polyspermy** (pŏl'ē-spēr'mē) The fertilization of an ovum by multiple spermatozoa.
- polystichia** (pŏl'ē-stīk'ē-ā) [" + *stichos*, a row] A condition in which there are two or more rows of eyelashes.
- polystomatous** (pŏl'ē-stō'mā-tūs) [" + *stoma*, mouth] Possessing many mouths or openings.
- polystyrene** (pŏl'ē-stī'rēn) A synthetic resin produced by the polymerization of styrene from ethylene and benzene. The formula is  $(\text{CH}_2\text{CHC}_6\text{H}_5)_n$ . It is used in the plastics industry.
- polysulfone** A synthetic polymer used in the fabrication of dialysis membranes with high biocompatibility.
- polysynaptic** (pŏl'ē-sī-nāp'tik) [" + *synapsis*, point of contact] Pert. to nerve pathways involving multiple synapses.
- polysyndactyly** (pŏl'ē-sīn-dāk'tīl-ē) [" + *syn*, together, + *daktylos*, finger] Multiple syndactyly.
- polytendinitis** (pŏl'ē-tēn'dī-nī'tis) [" + L. *tendo*, tendon, + Gr. *itis*, inflammation] Inflammation of several tendons.
- polytene** (pŏl'ē-tēn) [" + *tainia*, band] Composed of many filaments of chromatin.
- polyteny** (pŏl'ē-tē'nē) [" + *tainia*, band] Multiple lateral duplication of the chromosome. This produces a giant chromosome.
- polytetrafluoroethylene** (pŏ-lē-tē-trā-flō-rō-ēth'ī-lēn) ABBR: PTFE. A synthetic polymer that has slippery, nonsticking properties. It is used in a variety of products, including vascular grafts used to bypass obstructed blood vessels and grafts used for dialysis access.
- polythelia** (pŏl'ē-thē'lē-ā) [" + *thele*, nipple, + *-ismos*, condition] The presence of more than one nipple on a mamma.
- polytherapy** (pŏl'ē-thēr'ā-pē) Therapy with two or more drugs used at the same time to treat a condition. The term is used most often to describe treatment of seizure disorders with more than one drug; however, it is also used to describe multidrug therapy in Parkinson's disease, schizophrenia, and other brain diseases.
- polytrauma** (pŏl'ē-traw'mā) [" + " ] Simultaneous injury to several organs or body systems.
- polytrichia** (pŏl'ē-trīk'ē-ā) [" + *thrix*, hair] Hypertrichosis.
- polytrichosis** (pŏl'ē-trī-kō'sīs) [" + " + *osis*, condition] Hypertrichosis.
- polytropic** (pŏl'ē-trŏp'ik) [" + *tropē*, a turning] Affecting more than one type of cell, said of viruses, or affecting more than one type of tissue, said of certain poisons.
- polyunguia** (pŏl'ē-ūng'gwē-ā) [" + L. *unguis*, nail] Polyonychia.
- polyunsaturated** (pŏ-lē-ūn-sāch'ūr-ā-tēd) In chemistry, relating to long-chain carbon compounds, esp. fats that have many carbon atoms joined by double or triple bonds.
- polyuria** (pŏl'ē-ūr'rē-ā) [" + *ouron*, urine] Excessive secretion and discharge of urine. The urine does not, as a rule, contain abnormal constituents. Several liters in excess of normal may be voided each day. The urine is virtually colorless. Specific gravity is 1.000 to 1.002 (higher in diabetes mellitus). Polyuria occurs in diabetes insipidus; diabetes mellitus; chronic nephritis; nephrosclerosis; hyperthyroidism; following edematous states, esp. those induced by heart failure treated with di-

uretics; and following excessive intake of liquids.

**polyvalent** (pŏl'ē-vā'lĕnt, pŏ-lĭv'ā-lĕnt) [*v* + L. *valere*, to be strong] Multivalent; having a combining power of more than two atoms of hydrogen.

**polyvinyl chloride** (pŏl'ē-vĭ'nĭl) ABBR: PVC. A thermoplastic polymer formed from vinyl chloride, used in the manufacture of many products such as rain-wear, garden hoses, and floor tiles.



Exposure to toxic fumes of PVC can cause respiratory irritation, asthma, or decompensation. Some evidence suggests PVCs can cause cancer.

**polyvinylsiloxane** Vinyl polysiloxane.

**Pompe's disease** (pŏm-pāz) Glycogen storage disease type II.

**pompholyx** (pŏm'fē-lik) A blistering itchy rash of the hands and feet, marked by episodic and recurring deep-seated vesicles or bullae. The rash is most often found in adolescents and young adults, esp. during spring and summer. SYN: *dyshidrosis*; *dyshidrotic eczema*. SEE: *illus.*



POMPHOLYX

**ETIOLOGY:** Although the cause is unknown, emotional stress, an allergic predisposition, and fungal infections have each been associated with episodes of the rash.

**TREATMENT:** Burow's or permanganate solution and potent topical steroids sometimes are effective. The rash tends to appear less often as patients reach middle age.

**POMR** *problem-oriented medical record*.

**ponderal** (pŏn'dĕr-āl) [L. *pondus*, weight] Relating to weight.

**pons** (pŏnz, pŏn'tĕz") *pl.* **pontes** [L., bridge] A process of tissue connecting two or more parts.

**Pontiac fever** (pŏn' tĕ-āk") [Fm. Pontiac, MI, where an outbreak occurred in one building in 1986] An infection with *Legionella* species that causes fevers, chills, headache, muscle aches, gastrointestinal upset, and prostration but not pneumonia.

**pontic** (pŏn'tĭk) [L. *pons*, *pontis*, bridge] An artificial tooth set in a bridge.

**pontile** (pŏn'tĕl) Pert. to the pons varolii.

**pontile nuclei** The gray matter in the pons.

**pontine** (pŏn'tĕn) Pert. to the pons varolii.

**pontobulbar** (pŏn'tŏ-bŭl'bar) Pert. to the pons and medulla oblongata.

**pool** **1.** To mix blood from several donors.

**2.** The accumulation of blood in a body site. **3.** A source of similar substances or cells.

**abdominal p.** The accumulation of blood in the visceral organs of the abdominal cavity. This may occur as a result of abdominal trauma.

**amino acid p.** The amino acids available for protein synthesis at any given time; the liver regulates the blood level of amino acids based on tissue needs and converts excess amino acids to carbohydrates for energy production.

**gene p.** The sum of the genetic material in the members of a specified population.

**metabolic p.** All of the chemical compounds included in metabolic processes in the body.

**vaginal p.** The mucus and cells that are present in the posterior fornix of the vagina when the patient is in a supine position. Material obtained from this site is used in cancer detection and in evaluating the character of the vaginal fluid in investigating infertility problems.

**popliteus** (pŏp-lit'ē-ŭs, -lit-ē'ŭs) [L. *poples*, ham of the knee] Muscle located in the hind part of the knee joint that flexes the leg and aids it in rotating.

**popliteal** (pŏp'lit-ē'āl, pŏp-lit'ē-āl), *adj.*

**poppy** (pŏ'pĕ) Any of the several plants of the genus *Papaver*. Opium is obtained from the juice of the unripe pods of *Papaver somniferum*.

**population** **1.** All persons, plants, or animals inhabiting a specified area. **2.** The group of persons from which a research sample is drawn.

**population density** The number of organisms, usually people, living within a defined space, such as a city, county, or town. In the U.S., regions with greater population densities tend to have different health care problems than lightly populated ones. Conditions such as gunshot wounds, HIV/AIDS, and tuberculosis are more common in metropolitan areas than in rural areas. Urban living confers some advantages, however, in that densely populated areas tend to have a greater health care infrastructure and more professional resources than rural areas.

**POR** *problem-oriented record*.

**poradenitis** (por'ād-ĕ-nĭ'tis) [Gr. *poros*, passage, + *aden*, gland, + *itis*, in-

- flammation] The formation of small abscesses in the iliac lymph nodes.
- porcelain** (por'sē-lin) A hard, translucent ceramic made by fusing clay, quartz, and feldspar. The combination is colored by glazing with fusible pigments. It is used in dentistry to construct restorations and prosthetics.
- porcelaneous, porcelanous** (por'sē-lā'nē-ūs, -sēl'ān-ūs) [Fr. *porcelaine*] Translucent or white like porcelain.
- porcine** (por'sin) [L. *porcus*, pig] Relating to or concerning swine.
- pore** (por) [Gr. *poros*, passage.] **1.** A minute opening, esp. one on an epithelial surface. SEE: *porus*. **2.** The opening of the secretory duct of a sweat gland. SEE: *skin*; *stoma*; *sweat glands*.
- alveolar p.** A minute opening that is thought to exist between adjacent alveoli of the lung.
- gustatory p.** Taste pore.
- taste p.** The external opening of a taste bud. SYN: *gustatory pore*. SEE: *taste*.
- porencephalia, porencephaly** (por'ēn-sēf-ā'lē-ā, por'ēn-sēf-ā-lē) [l' + *enkephalos*, brain] An anomalous condition in which the ventricles of the brain are connected with the subarachnoid space.
- porencephalitis** (por'ēn-sēf'ā-lī'tis) [l' + *itis*, inflammation] Inflammation of the brain with development of cavities communicating with the subarachnoid space.
- pori** (pōr-ē) Pl. of *porus*.
- Porifera** (pō-rif'ē-rā) [NL. *porus*, opening + *ferre*, to bear] The phylum of sea sponges, some of which are toxic to humans.
- porin** (pōr'in) [Gr. *poros*, passageway] A channel-forming protein in cell membranes that facilitates the diffusion of water and small molecules in and out of the cell.
- porocephaliasis, porocephalosis** (pō'rō-sēf'ā-lī-ā-sis, -lō'sis) [l' + *kephale*, head, + *-iasis*, state or condition of] Infection with a species of *Porocephalus*.
- Porocephalus** (pō'rō-sēf-ā-lūs) a genus of helminthoid arthropods. The species parasitic in humans have been assigned to other genera. SEE: *Armillifer*.
- porokeratosis** (pō'rō-kēr'ā-tō'sis) [l' + *keras*, horn, + *osis*, condition] A rare skin disease marked by thickening of the stratum corneum in a linear arrangement, followed by its atrophy. Porokeratosis appears on smooth areas. It is irregular in form and size with a circumscribed outline and affects the hands and feet, forearms and legs, the face, neck, and scalp.
- poroma** (pō-rō'mā) [Gr.] **1.** Callosity. **2.** A tumor of cells lining the opening of the sweat glands.
- cerebral p.** At postmortem examination, the presence of cavities in the brain

substance caused by gas-forming bacteria.

**eccrine p.** A tumor arising from the duct of an eccrine gland; usually occurring on the palm or sole.

**porosis** (pō-rō'sis) [Gr. *poros*, passage, + *osis*, condition] Callus formation in repair of fractured bone. SEE: *callus*.

**-porosis** Suffix meaning *porous*.

**porosity** (pō-rōs'ī-tē) [Gr. *poros*, passage] The state of being porous.

**porous** (pō'rūs) Full of pores; able to let liquid pass.

**porphin** (por'fin) The basic ring structure forming the framework of all porphyrins. It consists of four pyrrole rings united by methene couplings.

**porphobilinogen** (por'fō-bī-lin'ō-jēn) An intermediate product in heme synthesis sometimes found in the urine of patients with acute porphyria. The urine may appear normal when fresh but will change to a burgundy wine color or even to black when heated with dilute hydrochloric acid to 100°C.

**porphyria** (por-fi'rē-ā, por-fir'ē-ā) [Gr. *porphura*, purple] A group of disorders that result from a disturbance in any of the sequential steps involved in the synthesis of heme, causing increased formation and excretion of porphyrin or its precursors.

**acute intermittent p.** A rare metabolic disorder inherited as an autosomal dominant trait. It is characterized by excessive excretion of porphyrins, episodes of acute abdominal pain, sensitivity to light, and neurological disturbances. The disorder is sometimes precipitated by the excessive use of sulfonamides, barbiturates, or other drugs.

**congenital erythropoietic p.** A rare condition inherited as an autosomal recessive trait. It is characterized by severe skin lesions, hemolytic anemia, and splenomegaly.

**p. cutanea tarda** A form of porphyria in which patients develop liver disease and rashes on parts of their bodies exposed to the sun (e.g., on the knuckles or face). The use of alcohol or estrogens may worsen the condition. The cause is a deficiency of uroporphyrinogen decarboxylase.

**p. erythropoietica** A mild form of porphyria characterized by cutaneous lesions and excess protoporphyrin in the erythrocytes and feces. SYN: *protoporphyrin*.

**p. hepatica** Porphyria caused by a disturbance in liver metabolism such as occurs following hepatitis, poisoning by heavy metals, certain anemias, and other conditions.

**South African genetic p.** Variegated porphyria.

**variegata p.** A form of hepatic porphyria in which there are recurrent episodes of abdominal pain and neuropa-

thy. The skin is esp. fragile. SYN: *South African genetic porphyria*.

**porphyrin** (por'fī-rin) [Gr. *porphyrā*, purple] Any of a group of nitrogen-containing organic compounds; they form the basis of animal and plant respiratory pigments; obtained from hemoglobin and chlorophyll.

**porphyrinuria** (por'fī-rī-nū'rē-ă) [" + *ouron*, urine] Excretion of an increased amount of porphyrin in the urine. SYN: *porphyria*.

**Porphyromonas** (pōr'fī-rō-mōn'ās) [Gr. *porphyrā*, purple + *monas*, single] A genus of gram-negative, rod-shaped, anaerobic bacteria that inhabits the oral cavity. One species, *Porphyromonas gingivalis*, is a common cause of gingivitis and periodontal infection.

**porphyria** (por'fī-rī-nū'rē-ă) [" + *ouron*, urine] Porphyrinuria.

**PORT** (pōrt) *patient outcomes research team*.

**porta** (pōr'tă) [L., gate] The point of entry of nerves and vessels into an organ or part.

**p. hepatis** The fissure of the liver where the portal vein and hepatic artery enter and the hepatic duct leaves.

**portable** (pōr'tă-bul) [L. *portare*, to carry] Movable or transferable from one place to another, e.g., a portable oxygen supply.

**portacaval** (por'tă-kă-văł) Concerning the portal system and the vena cava.

**portal** (pōr'tăl) [L. *porta*, gate] **1.** An entryway. **2.** Concerning a porta or entrance to an organ, esp. that through which the blood is carried to the liver.

**p. of entry** The pathway by which infectious organisms gain access to the body (e.g., respiratory tract, breaks in skin).

**p. of exit** The pathway by which pathogens leave the body of a host (e.g., respiratory droplets, feces, urine, blood).

**intestinal p.** The opening of the midgut or yolk sac into the foregut or hindgut of an embryo.

**positioning p.** Surgical portal.

**surgical p.** An opening in the skin through which a surgical instrument (e.g., a fiberoptic scope) may be placed. SYN: *positioning portal*.

**p. vein** Vein formed by the union of veins from the abdominal viscera, which then takes blood into the liver. It is made of the combined superior and inferior mesenteric, splenic, gastric, and cystic veins.

**portal system** A system of vessels in which blood passes through a capillary network, a large vessel, and then another capillary network before returning to the systemic circulation (e.g., the circulation of blood through the liver).

**port film** (pōrt) [L. *porta*, door, gate] In

radiation oncology an x-ray image used to verify the positioning of the patient within the planned treatment field.

**portoenterostomy, hepatic** (pōr-tō-ĕn-tēr-ōs'tō-mē) A surgical procedure performed to establish bile flow in an infant who has external biliary atresia associated with absence of the extrahepatic biliary system. A section of the jejunum is attached to the liver at the normal exit site of the hepatic duct to allow bile drainage into the small intestine. The jejunal segment may be looped to form a cutaneous double-barreled ostomy. Postoperatively, liver function continues to deteriorate in most children, and liver transplantation is often needed. SYN: *Kasai procedure*.

**portogram** (por'tō-grām) [L. *porta*, gate, + Gr. *gramma*, something written] A radiograph of the portal vein after injection of a contrast medium.

**portography** (por-tōg'ră-fē) [" + Gr. *graphein*, to write] Radiography of the portal vein after injection of a radiopaque contrast medium.

**portal p.** Portography after injection of opaque material into the superior mesenteric vein. This is usually done during laparotomy.

**splenic p.** Radiography of the splenic and portal veins after injection of a contrast medium into the splenic artery.

**portosystemic** (por'tō-sīs-tēm'ik) Joining the portal and systemic venous circulation.

**Portuguese man-of-war** A type of jellyfish, *Physalia physalis*, whose tentacles contain a neurotoxin that produces a burning sensation on contact. SEE: *bite*.

**port-wine stain** (pōrt'wīn) Nevus flammeus.

**porus** (pō'rūs) *pl. pori* [L.] A meatus or foramen; a tiny aperture in a structure; a pore.

**p. acusticus, internal** The opening of the internal acoustic meatus into the cranial cavity.

**p. gustatorius** The small taste pore openings in the taste buds of the tongue.

**position** (pō-zish'ūn) [L. *positio*] **1.** The place or arrangement in which a thing is put. **2.** The manner in which a body is arranged, as by the nurse or physician for examination. **3.** In obstetrics, the relationship of a selected fetal landmark to the maternal front or back, and on the right or left side. SEE: *table; presentation* for illus.

**anatomical p.** The position assumed when a person is standing erect with arms at the sides, palms forward. SYN: *orthograde position*.

**anteroposterior p.** A radiographical examination position in which the central ray enters the front of the body and exits from the back.

**antideformity p.** Any one of several postures that reduce edema and the





### Positions of Fetus in Utero

Vertex Presentation (point of designation—occiput)	
Left occiput anterior	LOA
Right occiput posterior	ROP
Right occiput anterior	ROA
Left occiput posterior	LOP
Right occiput transverse	ROT
Occiput anterior	OA
Occiput posterior	OP
Breech Presentation (point of designation—sacrum)	
Left sacroanterior	LSA
Right sacroposterior	RSP
Right sacroanterior	RSA
Left sacroposterior	LSP
Sacroanterior	SA
Sacroposterior	SP
Left sacrotransverse	LST
Right sacrotransverse	RST
Face Presentation (point of designation—mentum)	
Left mentoanterior	LMA
Right mentoposterior	RMP
Right mentoanterior	RMA
Left mentoposterior	LMP
Mentoposterior	MP
Mentoanterior	MA
Left mentotransverse	LMT
Right mentotransverse	RMT
Transverse Presentation (point of designation—scapula of presenting shoulder)	
Left acromiodorso-anterior	LADA
Right acromiodorso-posterior	RADP
Right acromiodorso-anterior	RADA
Left acromiodorso-posterior	LADP

shortening of ligaments and tendons caused by abnormal muscle tone (e.g., in patients with injuries or burns).

**axial p.** A radiographical examination position in which an image is obtained with the central ray entering the body at an angle.

**Bonnet's p.** In inflammation of the hip joint, the flexion, abduction, and outward rotation of the thigh, which produces relief.

**Brickner p.** A method of obtaining traction, abduction, and external rotation of the shoulder by securing the patient's wrist to the head of the bed.

**centric p.** The most posterior position of the mandible in relation to the maxilla.

**closed-packed p.** The joint position in which there is maximum congruency of the articular surfaces and joint stability is derived from the alignment of bones. This is the opposite of the maximum loose-packed position.

**decubitus p.** The position of the pa-

tient on a flat surface. The exact position is indicated by which surface of the body is closest to the flat surface (i.e., in left or right lateral decubitus, the patient is flat on the left or right side, respectively; in dorsal or ventral decubitus, the patient is on the back or abdomen, respectively).

**dorsal p.** A position in which the patient lies on the back. SYN: *supine*.

**dorsal elevated p.** A position in which the patient lies on the back with the head and shoulders elevated at an angle of 30° or more. It is employed in digital examination of genitalia and in bimanual examination of the vagina.

**dorsal recumbent p.** A position in which the patient lies on the back with the lower extremities moderately flexed and rotated outward. It is employed in the application of obstetrical forceps, repair of lesions following parturition, vaginal examination, and bimanual palpation. SEE: *illus*.

**dorsosacral p.** Lithotomy position. SEE: *dorsal recumbent p.* for *illus*.

**Edebohls' p.** Simon's position.

**Elliot's p.** A position in which supports are placed under the small of the patient's back so that the patient is in a posture resembling a double inclined plane.

**English p.** Left lateral recumbent position.

**fetal p.** The relationship of a specified bony landmark on the fetal presenting part to the quadrants of the maternal pelvis.

**Fowler's p.** SEE: *Fowler's position*.

**genucubital p.** A position with the patient on the knees, thighs upright, body resting on elbows, head down on hands. Employed when it is not possible to use the classic knee-chest position. SYN: *knee-elbow position*.

**genupectoral p.** A position with the patient on the knees, thighs upright, the head and upper part of the chest resting on the table, arms crossed above the head. It is employed in displacement of a prolapsed fundus, dislodgment of the impacted head of a fetus, management of transverse presentation, replacement of a retroverted uterus or displaced ovary, or flushing of the intestinal canal. SYN: *knee-chest position*. SEE: *dorsal recumbent p.* for *illus*.

**gravity-dependent p.** Placing a limb so that its distal end is lower than the level of the heart. Gravity affects the fluids within the limb, drawing or retaining them to the distal aspect. When limbs, esp. injured limbs, are placed below the level of the heart, interstitial pressure is increased, encouraging the formation and retention of edema within the extremity.

**head-down p.** Trendelenburg position.



FOWLER'S



PRONE



KNEE-CHEST



SIMS'



LATERAL



STANDING



LATERAL RECUMBENT



SUPINE

## POSITIONS

**horizontal p.** A position in which the patient lies supine with feet extended. It is used in palpation, in auscultation of fetal heart, and in operative procedures.

**horizontal abdominal p.** A position in which the patient lies flat on the abdomen, feet extended; employed in examination of the back and spinal column.

**jackknife p.** A position in which the patient lies on the back, shoulders ele-

vated, legs flexed on thighs, thighs at right angles to the abdomen. It is employed when introducing a urethral sound. SYN: *reclining position*.

**knee-chest p.** Genupectoral position.

**knee-elbow p.** Genucubital position.

**lateral p.** In radiology, a side-lying position, which allows the central ray to enter the upright side.

**laterosemiprone p.** SEE: *Sims' position*.

**lawn-chair p.** A colloquial term for a dorsal recumbent position with the hips and knees flexed slightly (about 5°–10°).

**left lateral recumbent p.** A position with the patient on the left side, right knee and thigh drawn up; employed in vaginal examination. SYN: *obstetrical position*.

**lithotomy p.** A position in which the patient lies on the back, thighs flexed on the abdomen, legs on thighs, thighs abducted. This is used in genital tract operations, vaginal hysterectomy, and the diagnosis and treatment of diseases of the urethra and bladder. SYN: *dorso-sacral position*. SEE: *dorsal recumbent p.* for illus.

**loose-packed p.** The position of a joint where it is unlocked and free to move. SEE: *closed-packed p.*

**maximum loose-packed p.** The position where maximum joint play occurs; the position where ligaments and capsule have the least amount of tension. This is also known as resting position.

**Noble's p.** [Charles Percy Noble, U.S. physician, 1863–1935] A position in which the patient is standing, leaning forward, and supporting the upper body by bracing the arms against the wall or a chair. This position is useful in examining the kidney.

**oblique p.** In radiology, an alignment of the body between a lateral and an anteroposterior or posteroanterior position. The angle formed by the body surface and the image receptor may vary. The central ray enters the aspect of the body that is upright and facing away from the image receptor.

**obstetrical p.** Left lateral recumbent position.

**orthograde p.** Anatomical position.

**orthopneic p.** The upright or nearly upright position of the upper trunk of a patient in a bed or chair. It facilitates breathing in those with congestive heart failure and some forms of pulmonary disease.

**physiological rest p.** In dentistry, the position of the mandible at rest when the patient is sitting upright and the condyles are in an unstrained position. The jaw muscles are relaxed. SYN: *rest position*.

**posterior-anterior p.** ABBR: PA position. In radiology, a position in which the central ray enters the posterior surface of the body and exits the anterior surface.

**prone p.** A position in which the patient is lying face downward. SEE: *dorsal recumbent p.* for illus.

**prone on elbows p.** ABBR: POE. A position in which the body is lying face down with the upper trunk and head elevated, propped up by the arms, while the lower body is in contact with the supporting surface. The weight of the

upper body rests on the elbows and forearms.

**PATIENT CARE:** This position, a component of the developmental sequence, is used in physical therapy to improve weight bearing and stability through the shoulder girdle. Elbow joint stability is not required, because the joint is not involved.

**reclining p.** Jackknife position.

**rest p.** Physiological rest position.

**semi-Fowler's p.** A position in which the patient lies on the back with the trunk elevated at an approximate 30-degree angle. SEE: *Fowler's position*.

**semiprone p.** Sims' position.

**Sims' p.** SEE: *Sims' position*.

**subtalar neutral p. of the foot** The middle range of the subtalar joint with no pronation or supination measured. It is usually one third of the way from the fully everted position.

**tangential p.** In radiology, a position in which the central ray separates the images of anatomical parts by skimming between them.

**Trendelenburg p.** SEE: *Trendelenburg position*.

**tripod p.** A position that may be assumed during respiratory distress to facilitate the use of respiratory accessory muscles. The patient sits, leaning forward, with hands placed on the bed or a table with arms braced.

**unilateral recumbent p.** The position in which the patient lies on the right side is used in acute pleurisy, lobar pneumonia of the right side, and in a greatly enlarged liver; the position in which the patient lies on left side is used in lobar pneumonia, pleurisy on the left side, and in large pericardial effusions. SEE: *dorsal recumbent p.* for illus.

**Walcher's p.** SEE: *Walcher's position*.

**positioner** (pō-zīsh'ūn-ēr) An apparatus for holding or placing the body or body part in a certain position.

**positioning** In rehabilitation, the placing of the body and extremities so as to aid treatment by inhibiting undesirable reflexes and preventing deformities. In treatment of children with developmental disabilities involving neuromotor function, the position of the body affects the presence of some primitive reflexes that can affect muscle tone. Alignment of the head, neck, and trunk is therefore thought to be important to reduce unnecessary influences on muscle tone, and the careful placement of the limbs is important to reduce or prevent contractions and deformities.

**positive** (pōz'ī-tīv) [L. *positivus*, ruling]

1. Definite; affirmative; opposite of negative.
2. Indicating an abnormal condition in examination and diagnosis.
3. Having a value greater than zero. In laboratory findings and mathematical

expressions, positive is indicated by a plus (+) sign.

**positive predictive value** The proportion of people whose test results are "true" positives and who are actually ill.

**positron** (pōz'ī-trōn) A particle having the same mass as a negative electron but possessing a positive charge.

**Possum** (pōs'ūm) [patient operated selector mechanism] A device that permits a person with a disability to control and operate various machines such as switches, telephones, and typewriters by breathing into the master control of the apparatus. SEE: *environmental control unit*.

**post** In dentistry, a cast restoration that extends into the root of a tooth to anchor a dental crown or prosthesis.

**post-** [L.] A prefix meaning *behind, after, posterior*.

**postabortal** (pōst'ā-bor'tāl) [L. *post*, behind, after, + *abortus*, abortion] Happening subsequent to abortion.

**postadolescent** (pōst'ād-ō-lēs'ēnt) [" + *adolescens*, to grow up] An individual who has passed adolescence.

**post-anesthesia care unit** ABBR: PACU. A unit to which patients are admitted after surgery for the monitoring of signs and symptoms that suggest that they may have poorly tolerated their anesthesia or operation. The typical PACU is staffed by nurses who evaluate patients for symptoms of instability (e.g., bleeding, chest pain, or labored breathing), or unstable vital signs (e.g., excessive pain, low blood pressure, poor oxygenation, or tachycardia). Anesthesiologists, hospitalists, and/or surgeons may be available for consultation or the management of emergencies.

**postanesthesia recovery room nurse** (pōst-ān-ēs-thē-zhā) ABBR: PAR nurse. A nurse who has received special training in caring for patients who have come from surgery and are recovering from the effects of anesthesia.

**postanesthetic** (pōst'ān-ēs-thēt'ik) [" + Gr. *an-*, not, + *aisthesis*, sensation] Pert. to the period following anesthesia.

**postapoplectic** (pōst'āp-ō-plēk'tik) [" + Gr. *apoplessein*, to cripple by a stroke] Pert. to the period immediately following a stroke or apoplexy.

**postbrachial** (pōst'brā'kē-īl) [" + *brachiolus*, arm] Pert. to the posterior portion of the upper arm.

**postcardiotomy** (pōst-kār'dē-ōt'ō-mē) [" + " + *tome*, incision] The period after open-heart surgery.

**postcardiotomy syndrome** Postpericardiotomy syndrome.

**postcibal** (pōst-sī'bāl) [" + *cibum*, food] ABBR: pc. Occurring after meals.

**postclimacteric** (pōst'klī-māk-tēr'ik, -māk'tēr-ik) [" + Gr. *klimakter*, rung of a ladder] Occurring after menopause.

**postcoital** (pōst-kō'it-āl) [" + *coitio*, a coming together] Subsequent to sexual intercourse.

**postcoital test** (pōst'kō-ī-tāl) [" + "] Huhner test.

**postconcussion syndrome** (pōst'kān-kūsh'ān) Traumatic brain injury.

**postconubial** (pōst'kōn-ū'bē-āl) [" + *conubium*, marriage] Occurring after marriage.

**postconvulsive** (pōst'kōn-vūl'siv) [" + *convulsus*, pull violently] Occurring after a convulsion.

**postcranial** (pōst-krā'nē-āl) Behind or below the cranium; used to describe the bones of the trunk and limbs.

**postdiastolic** (pōst'di-ās-tōl'ik) [" + Gr. *diastole*, expansion] Occurring after the cardiac diastole.

**postdicrotic** (pōst'di-krōt'ik) [" + Gr. *dikrotos*, beating double] Occurring after the dicrotic pulse wave.

**p. wave** A recoil or second wave (not always present) in a blood pressure tracing.

**postdiphtheritic** (pōst'dif-thēr-īt'ik) Following diphtheria.

**postencephalitis** (pōst'ēn-sēf-ā-lī'tis) [" + Gr. *enkephalos*, brain, + *itis*, inflammation] Occurring after encephalitis; an abnormal state remaining after the acute stage of encephalitis has passed.

**postepileptic** (pōst'ēp-i-lēp'tik) [" + Gr. *epi*, upon, + *leptis*, a seizure] Following an epileptic seizure. SEE: *postictal*.

**posterior** (pōs-tē'rē-or) [L. comparative of *posterus*, coming after] **1.** In quadrupeds, pert. to or located at or toward the rear of the body; caudal; opposite of anterior. **2.** In human anatomy, pert. to or located at or toward the back; dorsal. In human anatomy, "caudal," "dorsal," and "posterior" mean the same thing. **3.** Situated behind; coming after.

**posterior teeth** The bicuspid and molar teeth.

**posterior vitreous detachment** ABBR: PVD. Separation of the vitreous gel from the retinal surface, often as a result of aging or diabetes mellitus.

**postero-** (pōs'tēr-ō) [L.] Prefix indicating *posterior, situated behind, toward the back*.

**posteroanterior** (pōs'tēr-ō-ān-tēr'ē-or) [L. *posterus*, behind, + *anterior*, anterior] Indicating the flow or movement from back to front.

**posterolateral** (pōs-tēr-ō-lā'tēr-āl) [" + *lateralis*, side] Located behind and at the side of a part.

**posteromedial** (pōs'tēr-ō-mē-dē-āl) [" + *medius*, middle] Toward the back and toward the median plane.

**posteroparietal** (pōs'tēr-ō-pā-rī'ē-tāl) [" + *paries*, a wall] Located at the back of the parietal bone.



**posterosuperior** (pōs'tēr-ō-sū-pē'rē-ōr) [*"* + *superior*, upper] Located behind and above a part.

**posterotemporal** (pōs'tēr-ō-tēm'pō-rāl) [*"* + *temporalis*, temporal] Located at the back of the temporal bone.

**posteruption** (pōst'ēr-ūp-shūn) Referring to the stage of tooth eruption in which the tooth has reached the occlusal plane and is functional, but continues to erupt to compensate for loss of tooth substance because of wear. SEE: *eruption*; *pre-eruption*.

**postesophageal** (pōst'ē-sōf'ā-jē'āl) [L. *post*, behind, after, + Gr. *oisophagos*, gullet] Located behind the esophagus.

**postexposure** (pōst'ēx-pō'zhēr) [*"* + *"*] The period following actual or potential contact with a pathogen or a toxic agent. SEE: *exposure*.

**postfall syndrome** The inability to stand or walk without support for fear of repeating a fall. It is not associated with any physical disability and usually occurs in the elderly.

**postfebrile** (pōst-fē'brīl) [*"* + *febris*, fever] Occurring after a fever.

**postganglionic** (pōst'gān-glē-ōn'īk) [*"* + Gr. *ganglion*, knot] Situated posterior or distal to a ganglion.

**postgraduate year one** ABBR: PGY-1. The first year of graduate training after completion of the formal 4 yr of medical school. Previously, this year was known as the internship year. Similarly, PGY-2 and PGY-3 are the abbreviations for postgraduate year two and three.

**posthemiplegic** (pōst'hēm-ī-plē'jīk) [*"* + Gr. *hemi*, half, + *plege*, a stroke] Occurring after hemiplegia.

**posthemorrhagic** (pōst'hēm'ō-rāj'īk) [*"* + Gr. *haima*, blood, + *rhegnynai*, to burst forth] Occurring after hemorrhage.

**posthepatic** Originating after bile leaves the liver, as in posthepatic jaundice, in which obstruction of bile ducts causes the jaundice.

**posthepatitic** (pōst'hēp-ā-tīt'īk) [*"* + Gr. *hepar*, liver, + *itis*, inflammation] Occurring after hepatitis.

**posthioplasty** (pōs'thē-ō-plās'tē) [*"* + *plastos*, formed] Plastic surgery of the prepuce or foreskin.

**posthitis** (pōs-thī'tis) [*"* + *itis*, inflammation] Inflammation of the foreskin. SYN: *acroposthitis*.

**post hoc** (pōst hōk) [L., "after this"] After the fact.

**posthumous** (pōs'tū-mūs) [L. *postumus*, last] **1.** Occurring after death. **2.** Born after the death of the father. **3.** Said of a child taken by cesarean section after the death of the mother.

**posthypnotic** (pōst'hīp-nōt'īk) [L. *post*, behind, after, + Gr. *hypnos*, sleep] Occurring or performed after hypnosis.

**p. suggestion** SEE: *under suggestion*.

**posthypoxia syndrome** (pōst'hī-pōk'sē-ā) Hypoxic encephalopathy. SEE: *hypoxia*.

**postictal** (pōst-īk'tāl) [*"* + *ictus*, a blow or stroke] Occurring after a sudden attack or stroke, as an epileptic seizure or apoplexy.

**p. confusion** Confusion that follows a seizure. It usually resolves in an hour unless complicated by head injury, hypoxia, or status epilepticus. SEE: *epilepsy*.

**posticteric** (pōst'īk-tēr'īk) [*"* + Gr. *ikteros*, jaundice] Occurring after jaundice.

**postlingual** (pōst'līng'gwīl) [*"* + *"*] Occurring after the development and use of speech and language.

**postmalarial** (pōst'mā-lā-rē-āl) [*"* + It. *malaria*, bad air] Occurring after malaria.

**postmature** (pōst'mā-tūr') [*"* + *maturus*, ripe] Pert. to an infant born after an estimated 42 weeks' gestation, who exhibits findings consistent with postmaturity syndrome.

**postmaturity** (pōst'mā-chūr-ī-tē) SEE: *postmaturity syndrome*.

**postmaturity syndrome** (pōst'mā-chūr-ī-tē) A condition occurring in infants born after 42 weeks' gestation who exhibit signs of perinatal compromise related to diminished intrauterine oxygenation and nutrition secondary to placental insufficiency. During labor the fetal monitor may display late decelerations, and fetal hypoxia may result in meconium expulsion and aspiration. Characteristic assessment findings include skin desquamation and an absence of lanugo and vernix caseosa. Laboratory findings may include polycythemia and hypoglycemia. Postmature infants may also be at increased risk of cold stress due to diminished subcutaneous fat.

**postmenopausal** (pōst'mēn-ō-paw'zāl) [*"* + Gr. *men*, month, + *pausis*, cessation] Occurring after permanent cessation of menstruation.

**postmenopause** (pōst'mēn'ō-pawz') [*"* + *"*] The phase of a woman's life that begins 1 year after her final menstrual period.

**postmortem** (pōst'mōr-tēm) [L.] **1.** Occurring or performed after death. **2.** Autopsy.

**postmyocardial infarction syndrome** (pōst-mī-ō-kār'dē-āl)

Nonischemic chest pain occurring after a patient has had a myocardial infarction, that typically worsens with deep breathing, improves while sitting up, and is aggravated by lying down. The patient may develop a low-grade fever, an elevated erythrocyte sedimentation rate, and elevated levels of antimyocardial antibodies. The cause is unknown. Patients



usually are treated with nonsteroidal anti-inflammatory drugs or corticosteroids. A similar syndrome occurs in some patients who have undergone cardiac surgery (postpericardiotomy syndrome). SEE: *Dressler's syndrome*.

**postnasal** (pōst-nā'zāl) [L. *post*, behind, after, + *nasus*, nose] Located behind the nasal cavities.

**postnasal drip syndrome** ABBR: PNDS. An important cause of chronic cough, often associated with chronic or allergic rhinitis, in which nasal secretions drain via the posterior pharynx.

**postnatal** (pōst'nā'tāl) [ʹ + *natus*, birth] Occurring after birth.

**postnecrotic** (pōst'nē-krōt'ik) [ʹ + Gr. *nekros*, corpse] Occurring after the death of a tissue or a part.

**postneuritic** (pōst'nū-rīt'ik) [ʹ + Gr. *neuron*, nerve, + *itis*, inflammation] Occurring after neuritis.

**postoperative** (pōst'ōp'ēr-ā-tiv) [ʹ + ʹ] After a surgery or any other invasive procedure.

**postoperative period** The first hours and days after surgery.

**PATIENT CARE:** During this period patients often experience considerable pain, difficulty in moving, nausea, vomiting, and changes in nutritional status and fluid balance. Patients may also be placed at risk of infection from the surgical wound and indwelling catheters. Other high-risk possibilities after surgery include heart attack, atelectasis/pneumonia, stroke, delirium, bleeding, clotting, adverse reactions to medications, peptic ulceration, and depression.

**postparalytic** (pōst'pār-ā-lit'ik) [ʹ + *para*, beside, + *lyein*, to loosen] Subsequent to an attack of paralysis.

**postpartal period, postpartum period** (pōst-pār'tāl) Pert. to the 6-week period after childbirth, during which progressive physiological changes restore uterine size and system functions to nonpregnant status. SEE: *Nursing Diagnoses Appendix*.

**postpartum** (pōst-pār'tūm) [L. *post*, after, + *partus*, birth] Occurring after childbirth.

**p. blues** A period of heightened maternal emotions that follow the birth of a baby, typically beginning in the first three to five days after childbirth. Common symptoms are irritability, emotional lability, and tearfulness, although exaggerated happiness may also be reported. Unlike postpartum depression (a persistent mood disturbance after childbearing), postpartum blues typically resolves in a week to ten days.

**p. depression** SEE: *depression, postpartum*.


**p. pituitary necrosis** Sheehan's syndrome.

**postpericardiotomy syndrome** (pōst'kār-dē-ōt'ū-mē) Fever, pericardial friction rub, and chest pain occurring several days or weeks after cardiac surgery. The syndrome appears to be an autoimmune response to damaged cardiac cells. Congestive heart failure may ensue. SYN: *postcardiotomy syndrome*. SEE: *postmyocardial infarction syndrome*.

**postphlebotic** Occurring after a blood clot forms in a vein.

**postphlebotic syndrome** Pain and swelling felt in a limb that has been affected by a blood clot in its deep veins (a deep venous thrombosis). It is usually relieved somewhat by elevating the limb and worsened when the limb is dependent.

**postpneumonic** (pōst'nū-mōn'ik) [ʹ + Gr. *pneumon*, lung] Occurring after pneumonia.

**postpolio syndrome** (pōst-pō-lē-ō)  The development of motor and respiratory muscle weakness, limb muscle atrophy, fatigue, and diminished endurance occurring approx. 15–25 years after an initial bout of paralytic poliomyelitis. The syndrome results from progressive motor denervation.

**PATIENT CARE:** Affected patients benefit from the use of mobility aids, regular, supervised exercise, modifications of their homes and workplaces, planned rest periods, and orthoses to maintain optimal function and prevent excessive fatigue and bone, joint, or muscle injury. Patients with dysphagia are at risk for aspiration pneumonia, and benefit from speech consultation.

**postprandial** (pōst-prān'dē-āl) Following a meal.

**p. dumping syndrome** Dumping syndrome.

**postprandial reactive hypoglycemia, reactive hypoglycemia** A low blood glucose level (<50 mg/dl or 3.3 mmol/L) that occurs after a meal. It may result from excessive treatment with insulin or oral hypoglycemic drugs, from dumping syndrome or other digestive diseases, or from less common illnesses. It may be managed with alpha-glucosidase inhibitors and changes in diet.

**postpuberty** (pōst-pū'bēr-tē) [ʹ + *pubertas*, puberty] The period after puberty. **postpubertal** (-tāl), *adj.*

**postpubescent** (pōst'pū-bēs'ēnt) [ʹ + *pubescens*, becoming hairy] Following puberty.

**postradiation** (pōst'rā-dē-ā'shūn) Occurring after exposure to ionizing radiation.

**postscapular** (pōst-skāp'ū-lār) [ʹ + *scapula*, shoulder blade] Infrascapular.

**postscarlatin** (pōst'skār-lā-tī'nāl) [ʹ + *scarlatina*, scarlet fever] Following scarlet fever.

**postsphygmie** (pōst-sfīg'mīk) [ʹ + Gr. *sphygmōs*, pulse] Following the pulse wave.

**poststenotic** (pōst'stē-nōt'īk) [ʹ + Gr. *stenosis*, act of narrowing] Distal to a stenosed or constricted area, esp. of an artery.

**postsynaptic** (pōst'sī-nāp'tīk) [ʹ + Gr. *synapsis*, point of contact] Located distal to a synapse.

**post-tachycardia syndrome** Secondary ST and T wave changes associated with decreased filling of the coronary arteries and subsequent ischemia during tachycardia.

**post-tarsal** (pōst-tār'sāl) [ʹ + Gr. *tarsos*, a broad, flat surface] Behind the tarsus.

**post-term pregnancy** (pōst-tērm) Pregnancy continuing beyond the beginning of the 42nd week (294 days) of gestation, as counted from the first day of the last normal menstrual period. This occurs in an estimated 3% to 12% of pregnancies. Complications include oligohydramnios, meconium passage, macrosomatia, and dysmaturity, all of which may lead to poor pregnancy outcome. The fetus should be delivered if any sign of fetal distress is detected. SEE: *syndrome, postmaturity*.

**post-tibial** (pōst-tīb'ē-āl) [ʹ + *tibia*, shinbone] Behind the tibia.

**post-transfusion purpura** ABBR: PTP. An abnormal, immune-mediated fall in the number of circulating platelets, caused by a recipient's reaction to foreign antigens on platelets he or she has received during a transfusion. Although the immune reaction normally starts against the donated platelets, in PTP host (recipient) platelets are also attacked, leading to a severe decrease in platelet numbers about a week, plus or minus 2 days, after the platelet transfusion. The consequences of a low platelet count may include bleeding, bruising, or discoloration of the skin.

**post-transfusion syndrome** (pōst-trānz-fū-zhūn) The development of fever, splenomegaly, atypical lymphocytosis, abnormal liver function tests, and, occasionally, a skin rash that develops following blood transfusion or perfusion of an organ during surgery. The syndrome appears 3 to 5 weeks after transfusion or perfusion with fresh (less than 24 hr old) blood, usually in large quantities. The causative agent is thought to be cytomegalovirus.

**post-traumatic** (pōst'traw-māt'īk) [ʹ + Gr. *traumatikos*, traumatic] Following an injury or traumatic event.

**post-traumatic stress disorder** ABBR: PTSD. Intense psychological distress, marked by horrifying memories, recurring fears, and feelings of helplessness

that develop after a psychologically traumatic event, such as the experience of combat, criminal assault, life-threatening accidents, natural disasters, or rape. The symptoms of PTSD may include re-experiencing the traumatic event (a phenomenon called "flash-back"); avoiding stimuli associated with the trauma; memory disturbances; psychological or social withdrawal; or increased aggressiveness, irritability, insomnia, startle responses, and vigilance. The symptoms may last for years after the event, but often can be managed with supportive psychotherapy or medications such as antidepressants.

**post-traumatic syndrome** A sustained maladaptive response to a traumatic, overwhelming event. SEE: *Nursing Diagnostics Appendix*.

**postulate** (pōs'tū-lāt) [L. *postulare*, to request] A supposition or view, usually self-evident, that is assumed without proof. SEE: *Koch's postulate*.

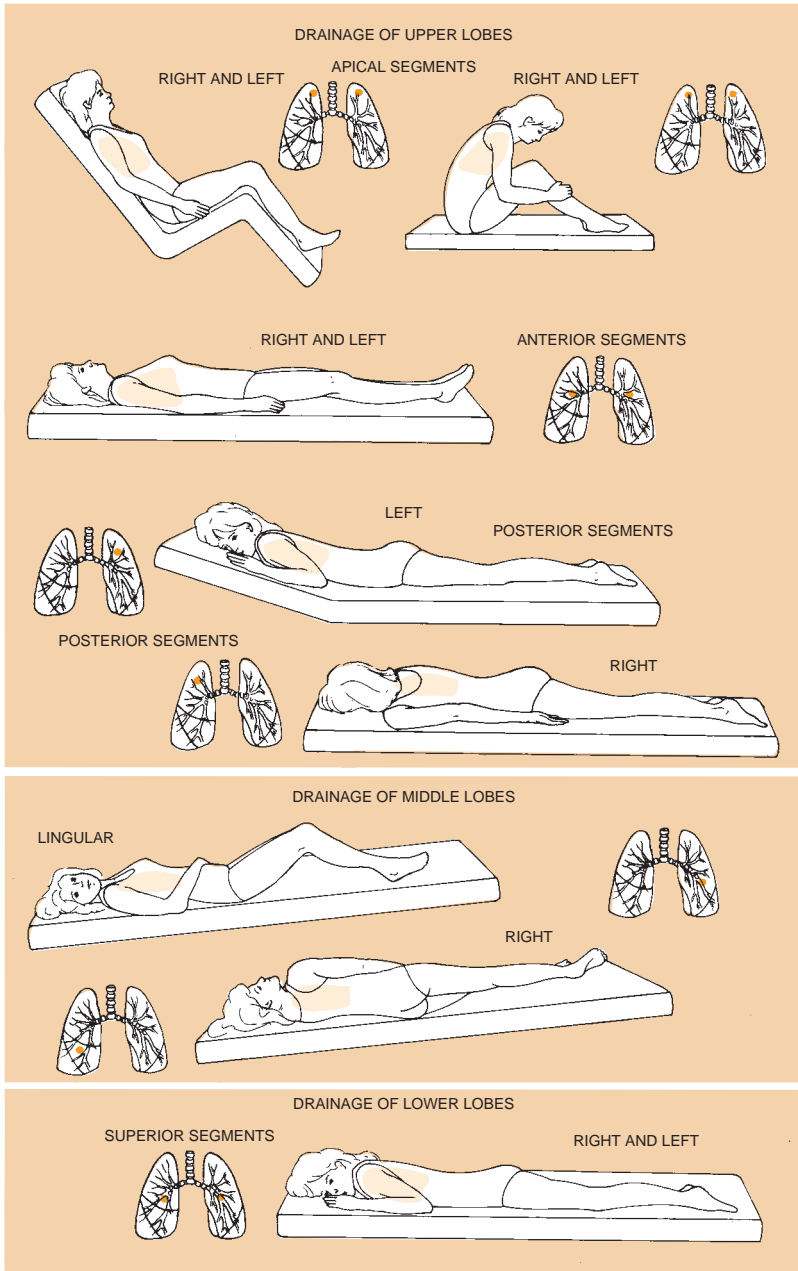
**postural** (pōs'tū-rāl) [L. *postura*, position] Pert. to or affected by posture.

**postural control** An involuntary neurological loop consisting of motor, sensory, and integrative processes used to maintain the body's position relative to gravity and of its segments relative to each other for stability. Postural control relies on information from the vestibular and somatosensory systems and visual cues. Balance is a hallmark of postural control. SEE: *balance; proprioception*.

**postural drainage** A passive airway clearance technique in which patients are positioned so that gravity will assist the removal of secretions from specific lobes of the lung, bronchi, or lung cavities. It can be used for patients with pneumonia, chronic bronchitis, cystic fibrosis, bronchiectasis, inhaled foreign bodies, before surgery for lobectomy, or in any patient having difficulty with retained secretions. A side effect of the treatment in some patients is gastroesophageal reflux. SEE: *illness*.

**PATIENT CARE:** Physical tolerance to the procedure is evaluated. The respiratory therapist teaches and assists the patient in the procedure, as ordered, by positioning the patient for effective drainage of the affected lung region(s). The patient is encouraged to remove secretions with an effective cough. To decrease the risk of aspiration, the patient should not perform the procedure after meals. Chest vibration and percussion are often performed at the same time to assist movement of retained secretions in the lung.

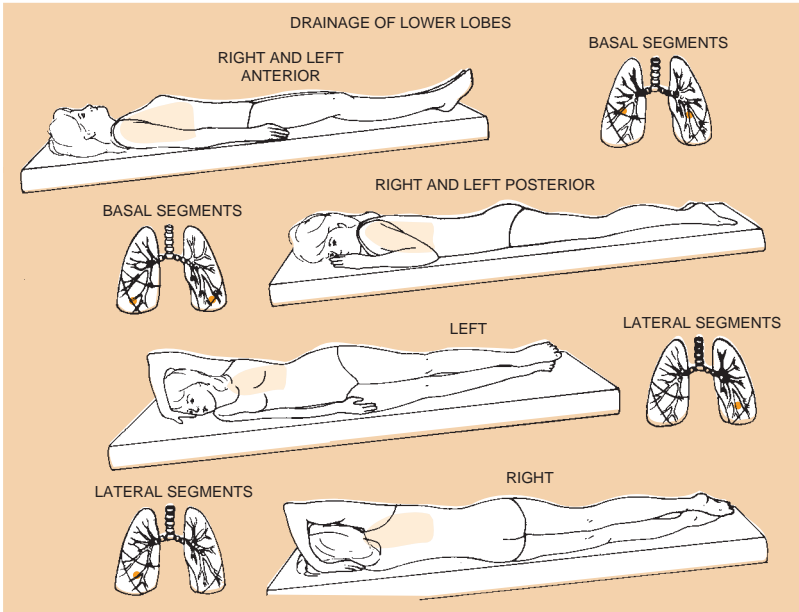
**postural hypotension** Orthostatic hypotension.



POSTURAL DRAINAGE OF LUNGS

**postural orthostatic tachycardia syndrome** ABBR: POTS. Inability to tolerate a standing position as a result of a sudden increase in heart rate when rising from a seated or recumbent position.

**posture** (pös'chür) [L.*postura*] Attitude or position of the body.  
**coiled p.** Posture in which the body



### POSTURAL DRAINAGE OF LUNGS

(CONTINUED)

is on one side with legs drawn up to meet the trunk. It is used sometimes during lumbar punctures.

**dorsal rigid p.** Posture in which the patient lies on the back with both legs drawn up. This is a position that is maintained by some patients suffering the pain of peritonitis.

**hyperlordotic p.** Increased lumbar lordosis without compensation in the thoracic or cervical spine. It is a component of the condition colloquially referred to as sway-back. **SEE: illus.**

**kyphosis-lordosis p.** A stance in which the pelvis is tilted forward, causing hip flexion, increased lumbar lordosis, and thoracic kyphosis.

**modified plantigrade p.** A standing position with the lower extremities on the ground and the upper extremities bearing weight on a table or other surface. The body weight is stabilized on all four extremities. This posture is used developmentally and in physical therapy to prepare for independent standing and gait.

**orthopnea p.** Posture in which the patient sits upright, hands or elbows resting upon some support; seen in asthma, emphysema, dyspnea, ascites, effusions into the pleural and pericardial cavities, and congestive heart failure.

**orthotonos p.** Posture in which the neck and trunk are extended rigidly in

a straight line; seen in tetanus, strychnine poisoning, rabies, and meningitis.

**prone p.** Prone.

**semireclining p.** Posture used instead of lying supine, by patients who are short of breath, e.g., because of heart failure.

**standard p.** The skeletal alignment accepted as normal; used for evaluating posture. There is equilibrium around the line of gravity and the least amount of stress and strain on supporting muscles, joints, and ligaments. From either the front or the back, a plumb bob would bisect the body equally. From the side, a plumb bob would be anterior to the lateral malleolus and the axis of the knee, posterior to the axis of the hip and the apex of the coronal suture, and through the bodies of the lumbar vertebrae, the tip of the shoulder, the bodies of the cervical vertebrae, and the external auditory meatus.

**swayback p.** A relaxed stance in which the pelvis is shifted forward, resulting in hip extension, and the thorax is shifted backward, resulting in an increased thoracic kyphosis and forward head. Also called *slouched posture*.

**postvaccinal** (pōst-vāk'sī-nāl) [' + *vac-cinus*, pert. to cows] Following vaccination; used esp. with reference to safety issues or immune responses that result from immunization.

**postviral fatigue syndrome** (pōst-vī-rāl)



HYPERLORDOTIC POSTURE

Chronic disability following a presumed viral infection. The most characteristic and persistent feature of the disease is muscle fatigue unrelieved by rest. Other symptoms include low-grade fever, headache, blurred vision or diplopia, stiff neck, vertigo, nausea and vomiting, lymphadenopathy, emotional lability, insomnia, urinary frequency, and either deafness or hyperacusis. In addition depression, anxiety, or other psychological symptoms may be present. SYN: *Royal Free disease*.

**post-void residual** Urine that remains in the bladder after urination; e.g., in prostate hypertrophy.

**potable** (pō'tā-bl) [LL. *potabilis*] Suitable for drinking, esp. pert. to water free of harmful organic or inorganic ingredients.

**Potain's sign** In dilatation of the aorta, dullness on percussion over the area extending from the body of the sternum toward the third costal cartilage on the right, and to the base of the sternum.

**potash** (pōt'āsh) [Obsolete Dutch, *potaschan*] Potassium carbonate.

**caustic p.** Potassium hydroxide.

**sulfurated p.** A liver-colored or green-yellow substance made up of potassium thiosulfate and potassium polysulfides and containing 12.8% sulfur as a sulfide; a principal ingredient of white lotion.

**potassemia** (pōt-ā-sē'mē-ā) [NL. *potassa*, potash, + Gr. *haima*, blood] Hyperkalemia.

**potassium** (pō-tās'ē-ūm) [NL. *potassa*, potash] SYMB: K. A mineral element that serves as both the principal cation in intracellular fluid and an important electrolyte in extracellular fluid. Along with other electrolytes (e.g., sodium, magnesium, calcium, chloride), potassium participates in many functions, including cell membrane homeostasis, nerve impulse conduction, and muscle contraction.

Potassium, which constitutes 0.35% of body weight, is found in most foods, including cereals, dried peas and beans, fresh vegetables, fresh or dried fruits, fruit juices, sunflower seeds, nuts, molasses, cocoa, and fresh fish, beef, ham, or poultry. The usual dietary intake of potassium is 50 to 150 mEq/day. In healthy people, the kidneys excrete any potassium excess consumed in the diet. In patients with renal failure, congestive heart failure, hypertension, and many other illnesses, serum potassium levels must be adjusted carefully to avoid adverse consequences of deficiency or excess.

**DEFICIENCY:** Muscle weakness, dizziness, thirst, confusion, changes in the electrocardiogram, and life-threatening arrhythmias may develop during potassium deficiency (hypokalemia).

**EXCESS:** Extracellular potassium is increased in renal failure; in destruction of cells with release of intracellular potassium in burns, crush injuries, or severe infection; in adrenal insufficiency; in overtreatment with potassium salts; and in metabolic acidosis. This causes weakness and paralysis, impaired electrical conduction in the heart, and eventually ventricular fibrillation and death. Hyperkalemia can be treated by withholding potassium, by using drugs such as sodium polystyrene sulfonate, a cation exchange resin, to lower the potassium concentration in cells, and by using calcium gluconate to counteract the effects on the heart.



Rapid infusion of potassium is painful and may cause severe hy-



perkalemia, complicated by cardiac arrhythmias. Institutional protocols for the use of intravenous potassium should be followed carefully.

**p. alum** Aluminum potassium sulfate; strongly astringent, used topically as a styptic. SEE: *alum*.

**p. aminosalicylate** Para-aminosalicylic acid.

**p. carbonate**  $K_2CO_3$ ; a white crystalline powder used in pharmaceutical and chemical preparations. SYN: *potash*.

**p. chloride** A mineral/electrolyte administered orally to treat and prevent potassium depletion in patients who are unable to digest adequate dietary potassium. It is also administered to treat urinary tract infections and to prevent kidney stones. Its therapeutic classes are antiurolithics and mineral and electrolyte replacements/supplements.

**p. chromate**  $K_2CrO_4$ ; lemon-yellow crystals used as a dye and furniture stain, in manufacture of batteries, in photography, and in laboratories to preserve tissue.

**p. citrate**  $C_6H_8K_3O_7 \cdot H_2O$ ; transparent prismatic crystals used as an alkaliizer.

**p. cyanide** KCN; a highly poisonous compound used as a fumigant.

**p. gluconate**  $C_6H_{11}KO_7$ ; a drug used orally to replenish loss of potassium ion.

**p. iodide** KI; colorless or white crystals having a faint odor of iodine, used as an expectorant. This form of potassium is recommended for use following exposure to radioactive iodides downwind from a nuclear reactor accident. The rationale is that it blocks the uptake of radioactive iodides by the thyroid gland, thus preventing or decreasing the chance of developing cancer of the thyroid many years later.

**p. permanganate**  $KMnO_4$ ; crystals of dark purple prisms that are sweet and odorless. Concentrated solutions irritate and even corrode the skin and, when swallowed, induce gastroenteritis. The solutions have considerable power as disinfectants because their oxidizing ability destroys bacteria. They fail to penetrate deeply in an active form, which renders them of less value than many other disinfectants, except for use in very superficial infections.

**total body p.** SEE: *total body potassium*.

**potassium chromate poisoning** SEE: *under poisoning*.

**potato poisoning** SEE: *under poisoning*.

**potbelly** (põt-bël-ë) Slang term for the selective deposition of adipose tissue in the abdominal subcutaneous tissue. It is seen, e.g., in patients with the metabolic syndrome (syndrome X).

**potency** (põt'tën-së) [L. *potentia*, power]

1. Strength; force; power. 2. Strength of a medicine. 3. The ability of a man to perform coitus.

**potent** (põt'tënt) [L. *potens*, powerful]

1. Powerful. 2. Highly effective medically. 3. Having the power of procreation.

**potentia coeundi** (pō-tën'shē-ä kō-ë-ün'di) [L.] The ability to perform sexual intercourse in a normal manner.

**potential** (pō-tën-shäl) 1. Latent; existing in possibility. 2. In electricity, voltage or electrical pressure; a condition in which a state of tension or pressure, capable of doing work, exists. When two electrically charged bodies of different potentials are brought together, an electric current passes from the body of high potential to that of low.

**action p.** ABBR: AP. A local reversal of the charge across an excitable cell membrane that is propagated quickly along the length of the membrane. In humans, most of the cells that conduct action potentials are neurons or muscles. As with all cells, neuron and muscle cell membranes actively maintain an excess of negative ions inside the cell, which gives them, at rest, a cross-membrane charge of about -75 to -80 mV. If ion channels in one area of the membrane are caused to open briefly (as when the membrane is stimulated by a neurotransmitter), then charged ions move across the membrane, reducing the charge differential. When the cross-membrane charge reaches a threshold level (often about -40 to -60 mV), sodium ion channels (voltage-sensitive or voltage-gated channels) briefly open in the vicinity. Sodium ions rush into the cell, and temporarily the cross-membrane potential rises to a peak of about +40 to +50 mV – the height of the action potential in that region. This flood of ions also depolarizes adjacent membrane regions, which quickly reach their threshold levels, opening their voltage-gated channels. In this way, the depolarization spreads rapidly along the membrane.

**after p.** The small ionic changes across an excitable membrane that follow an action potential.

**demarcation p.** The difference in potential between an intact longitudinal surface and the injured end of a muscle or nerve. SYN: *injury potential*.

**injury p.** Demarcation potential.

**late p.** Deflections found on signal-averaged electrocardiograms that follow the QRS complex, and point to an increased likelihood of ventricular dysrhythmias. These deflections represent delays in electrical conduction through the ventricles.

**liquid junction p.** The potential voltage developed in an electrode measure-

ment system at the point where two solutions are in contact. Most often the solutions are the test solution and a liquid bridging solution such as saturated KCl, although any liquid-liquid interface may be involved. An example is the pH reference electrode.

**membrane p.** The electrical charge or potential difference between the inside and outside of a cell membrane.

**resting p.** Polarization (3).

**spike p.** A change in potential that occurs when a cell membrane is stimulated.

**potentiate** (pō-tēn'shē-āt) To increase the potency or action.

**potentiation** (pō-tēn'shē-ā'shūn) The synergistic action of two substances, such as hormones or drugs, in which the total effects are greater than the sum of the independent effects of the two substances.

**potentiometer** (pō-tēn'shē-ōm'ē-tēr) A voltmeter.

**calibration p.** A mechanically adjusted resistance used as a calibration control on many instruments. It adjusts a voltage or current within the device.

**potion** (pō'shūn) [L. *potio*, draft] A drink or draft; a dose of poison or liquid medicine.

**Pott, John Percivall** (pōt) British surgeon, 1714–1788. He pioneered research into chemical carcinogenesis by describing scrotal cancer in chimney sweeps.

**P.'s disease** Infection of the vertebrae caused by miliary (disseminated) tuberculosis. About 1% to 3% of patients with tuberculosis have infections in the bone; the spine is the most common site. Organisms spread from the site of primary infection through the blood. Once established in the spine, the infection moves through the intervertebral disks to multiple vertebrae. When it extends into the surrounding soft tissue, abscesses may be created. SYN: *spinal caries*; *tuberculous spondylitis*.

**SYMPTOMS:** Patients report pain when they move their back. Signs include a low-grade fever, weight loss, and local tenderness. When several upper vertebrae are involved, compression fractures, curvature of the spine (kyphosis), or nerve injury may occur.

**TREATMENT:** See Treatment section under tuberculosis.

**P.'s fracture** Fracture of the lower end of the fibula and medial malleolus of the tibia, with dislocation of the foot outward and backward.

**P.'s paralysis** Paralysis of the lower half of the body due to vertebral infection with tuberculosis and subsequent spinal cord injury SYN: *Pott's paraplegia*.

**pouch** (powch) [ME. *pouche*] Any pocket or sac.

**branchial p.** Pharyngeal pouch.

**colostomy p.** A watertight receptacle that holds the discharge from a colostomy site. SYN: *colostomy bag*.

**p. of Douglas** Rectouterine pouch.

**Heidenhain p.** A small, surgically constructed pouch of the stomach that is denervated and separated from the stomach and drained to the outside of the body. It is used to study the physiology of the stomach.

**hepatorenal p.** Hepatorenal recess.

**pharyngeal p.** One of a series of five pairs of entodermal outpocketings that develop in lateral walls of the pharynx of the embryo. SYN: *branchial pouch*.

**rectouterine p.** The pouch between the anterior rectal wall and the posterior uterine wall. SYN: *pouch of Douglas*; *cul-de-sac*.

**rectovesical p.** A fold of peritoneum that in men extends downward between the bladder and rectum.

**pouchitis** (pōw-chi'tis) Acute or chronic inflammation of the surgically produced pouch used in restorative proctocollectomy.

**poufrage** (pū-drāzh') [Fr.] Application of an irritating, but otherwise nontoxic, powder to the pleura to produce adhesions, e.g., in patients with recurring pleural effusions.

**poultice** (pōl'tis) [L. *pultes*, thick paste] A hot, moist, usually medicated mass that is placed between cloth sheets and applied to the skin to relieve pain, soothe injured tissues, stimulate the circulation, or act as a counterirritant. SEE: *plaster*.

**pound** (pownd) [L. *pondus*, weight] SYMB; lb. A measure of weight of the avoirdupois and the apothecaries' systems that is equal to 16 oz. SEE: *Weights and Measures Appendix*.

**avoirdupois p.** Sixteen ounces, equal to 453.59 g.

**troyp.** Twelve ounces, 5760 gr, equal to 373.242 g.

**poverty** The condition of having an inadequate supply of money, resources, or means of subsistence.

**p. of thought** The mental state of being devoid of thought and having a feeling of emptiness.

**poverty level** The relative standard of living of individuals or families who have inadequate funds to afford basic needs, such as shelter, food, clothing, or health care.

**povidone** (pō'vī-dōn) A synthetic polymer used as a dispersing and suspending agent in manufacturing drugs.

**povidone-iodine** A complex of iodine with povidone. It contains not less than 9% and not more than 12% available iodine. This iodophor is used in dilute concentration as a surgical scrub, in aerosol

spray, in vaginal douche solutions, and in ointments and gels.

**Powassan virus** (pō-wā'sān) [Powassan, Canada] A rare flavivirus, transmitted by tick bite, which occasionally causes encephalitis.

**powder** [ME. *poudre*] **1.** An aggregation of fine particles of one or more substances that may be passed through fine meshes. **2.** A dose of such a powder, contained in a paper.

**power** [ME. *power*] **1.** The rate at which work is done; the work/time ratio. The SI unit of power is the watt, equal to 1 joule per second. **2.** The capacity for action. **3.** In optics, the degree to which a lens or optical instrument magnifies. **4.** In microscopy, the number of times the diameter of an object is magnified, indicated by placing an  $\times$  after the number (e.g.,  $10\times$  indicates magnification of 10 times). **5.** In mathematics and in scientific nomenclature, the number of times a value is to be multiplied by itself, the exponent (i.e.,  $10^2 = 10 \times 10 = 100$ ;  $10^3 = 10 \times 10 \times 10 = 1000$ ). **6.** In statistics, the probability that a planned investigation will yield a statistically significant result. This is estimated by calculating how many individuals need to be randomly assigned to each group studied and how many would have to demonstrate improvement after receiving therapy in order to be able to conclude that one result meaningfully differs from another.

**power, readiness for enhanced** A pattern of participating knowingly in change that is sufficient for well being and can be strengthened. SEE: *Nursing Diagnoses Appendix*.

**power of attorney** ABBR: POA. A legal document by which a person identifies someone to make financial decisions if he or she is unable to perform this task independently. SEE: *power of attorney, durable, for health care*.

**power of attorney, durable, for health care** An advance directive that designates another person to make health care decisions regarding how aggressive treatment should be if the patient becomes incompetent or unable to make these decisions in the future, e.g., in the case of coma or a persistent vegetative state. The document also lists medical treatments that the person would not want to have. Durable power of attorney goes into effect when the document is signed. The Patient Self-Determination Act, enacted in 1991, mandates the responsibility of health care providers to develop written materials concerning advance directives. Also called *health care proxy*. SEE: *advance directive; living will*.

**powerlessness** (pōw'ēr-lēs-nēs) **1.** Lack of control or influence. **2.** The perception of lacking control or influence on one's

environment. SEE: *helplessness; Nursing Diagnoses Appendix*.

**p., risk for** At risk for perceived lack of control over a situation and/or one's ability to significantly affect an outcome. SEE: *Nursing Diagnoses Appendix*.

**pox** (pōks) [ME. *pokkes*, pits] **1.** An eruptive, contagious disease. **2.** A papular eruption that becomes pustular. SEE: *chickenpox; smallpox*.

**poxvirus** (pōks'vī-rūs) One of a group of DNA viruses that produce characteristic spreading vesicular lesions, often called pocks. It is the largest of the true viruses and includes viruses responsible for smallpox, vaccinia, molluscum contagiosum, and orf. SYN: *pox virus*.

**pp** *punctum proximum*, the near point of accommodation (in vision).

**ppb** *parts per billion*.

**PPD** *purified protein derivative*.

**PPE** *personal protective equipment*.

**ppm** *parts per million*.

**ppt** *parts per trillion; precipitate; prepared*.

**Pr** **1.** *presbyopia*. **2.** Symbol for the element praseodymium.

**pr** *L. punctum remotum*, the far point of visual accommodation.

**PRA** *Panel reactive antibody*

**practice** (prāk'tis) [Gr. *praxis*, practice] **1.** The use, by a health care professional, of knowledge and skill to provide a service in the prevention, diagnosis, and treatment of illness and in the maintenance of health. **2.** The continuing and repetitive effort to become proficient and to improve one's skill in the practice of medicine.

**blocked p.** A means of gaining mastery over a skill by drilling, i.e., by performing tasks or movements repeatedly according to a fixed procedure.

**evidence-based p.** Evidence-based health care.

**patient safety p.** A systematic health care practice that reduces the likelihood that patients will suffer undesirable side effects from treatment.

**random p.** A means of gaining mastery over a skill through training exercises that vary the sequence of elements in the skill. Compared with blocked practice, in which a skill is learned by fixed, repetitive drilling, random practice, with its frequently modified routine, results in better retention of the skill after training is completed.

**scope of p.** The extent and limits of the medical interventions that a health care provider may perform.

**practice guidelines** Consensus statements by professional societies or agents suggesting appropriate diagnostic and therapeutic options for patients with a specified diagnosis.

**practice pattern** A preferred or standard care method, esp. one about which au-

thorities, experts, or experienced practitioners agree. Also called preferred practice pattern.

**practitioner** (präk-tish'ün-ēr) One who has met the professional and legal requirements necessary to provide a health care service, such as a nurse, dentist, dental hygienist, or physical therapist.

**acute care nurse p.** A nurse who is licensed to manage the care of select patient groups that have acute and specialized health care needs. The practice of the acute care nurse practitioner may be within a hospital setting or may extend into other areas of the community.

**adult nurse p.** ABBR: ANP. A nurse practitioner who is licensed to treat people over 18 years of age.

**advanced nurse p.** An umbrella term that includes the following health care workers: Certified Midwife, Certified Registered Nurse Anesthetist, Clinical Nurse Specialist, and Nurse Practitioner.

**emergency room p.** A nurse certified in the area of urgent care, who possesses skills in triage and the knowledge to meet the emergent needs of clients.

**family nurse p.** ABBR: FNP. A nurse practitioner who is licensed to treat people of any age. SEE: *adult nurse p.*

**geriatric nurse p.** ABBR: GNP. An advanced practice registered nurse with a graduate specialty degree in the diagnosis, treatment, and management of acute and chronic conditions commonly found among older adults and generally associated with aging. Generally GNPs are required to have specialty certification by a nationally recognized credentialing organization. The functions of the GNP are defined by individualized scope of practice and collaborative agreements with physicians and other health-care providers based on state nurse practice acts and experience, education, knowledge, and abilities. SYN: *gerontologic nurse practitioner.*

**gerontologic nurse p.** Geriatric nurse practitioner

**mid-level p.** Mid-level provider.

**nurse p.** SEE: *under nurse.*

**pediatric nurse p.** A certified nurse who focuses on the common acute and chronic illnesses experienced by children and adolescents. The pediatric nurse practitioner integrates concepts of growth and development in assessing health care needs.

**Practitioners' Reporting Network, USP** ABBR: USP-PRN. Three separate programs designed to collect practitioners' experience with unreliable drug products, defective medical devices, drug problems with radiopharmaceuticals, and medication errors. Practitioners

and pharmacists report their experience to the United States Pharmacopeia, 12601 Twinbrook Parkway, Rockville, MD 20852. The USP receives the reports and publishes the results. Drug problem reports and medical device and laboratory product problem reports may be made by calling (800) 638-6725; medication errors may be reported by calling (800) 23ERROR.

**Prader-Willi syndrome** (prah' dēr-vīl' ē) A rare inherited condition marked by genetic obesity, hyperphagia, mental retardation, inadequate growth hormone secretion, short stature, sexual infantilism, and hypotonia. The cause is an abnormal chromosome 15 of maternal origin. SEE: *Angelman syndrome.*

**prae-** SEE: *pre-*.

**praecox** (prē'kōks) [L.] Early.

**praevia, praevius** (prē'vē-ā, prē'vē-ūs) [L.] Going before in time or place.

**pragmatagnosia** (präg'mät-äg-nō'zē-ä) [Gr. *pragma*, object, + *agnosia*, lack of recognition] Inability to recognize once familiar objects.

**pragmatamnesia** (präg'mät-äm-nē'zē-ä) [r' + *amnesia*, forgetfulness] The inability to recall the appearance of an object.

**pragmatics** (präg-mät' iks) In speech and language pathology, the social or interpersonal context of language (i.e., knowing how to use spoken language appropriately with other speakers).

**pragmatism** (präg'mä-tizm) [Gr. *pragma*, a thing done, + *-ismos*, condition] The belief that the practical application of a principle should be the determining factor in decision making.

**pragmatic** (präg-mät'ik), *adj.*

**pragmatist** (präg'mä-tist) A person whose goals are achieved or attempted from a practical concept, action, or approach; a practical person.

**pranayama** (prä-nä-yä'mä) [Sanskrit *prana*, life force + *yama*, self-control] A pattern of regulated, rhythmic breathing used in yoga and meditation to clear the mind and relieve stress or distraction. SYN: *yogic breathing.*

**prandial** (prän'dē-äl) [L. *prandium*, breakfast] Relating to a meal.

**praseodymium** (prä'sē-ō-dim'ē-üm) [Gr. *prasios*, leek-green, + *didymium*] SYMB: Pr. A metallic element in the rare earth series; atomic weight 140.907; atomic number 59.

**Prausnitz-Küstner reaction** (prows'nīts-kist'nēr) [Carl Willi Prausnitz, Ger. bacteriologist, 1876–1963; Heinz Küstner, Ger. gynecologist, 1897–1963] The intracutaneous injection of a hypersensitive patient's serum into a nonallergic person followed, 24 to 48 hr later, by the application of the suspected antigen to the injection site. If a wheal and flare occur, there is evidence that the suspected antigen is causing the hypersen-

- sitivity. Because of the danger of transmitting viral hepatitis and AIDS, this test is no longer used.
- Pravachol** SEE: *pravastatin*.
- pravastatin** (prá'vá-stát'in) An HMG-CoA reductase inhibitor and lipid-lowering agent. It is administered orally, as an adjunct to diet and exercise, to manage hypercholesterolemia and mixed dyslipidemias.
- praxiology** (prák'sē-ól'ō-jē) [" + *logos*, word, reason] The study of behavior.
- praxis** (prák'sīs) [Gr., action] The ability to plan and execute coordinated movement.
- praxis** [Gr., action] Combining form indicating *act, activity, practice, use*.
- PRBCs** packed red blood cells.
- pre-** [L. *prae*, before] Prefix indicating *before, in front of*. SEE: *anti-*; *pro-*.
- preadmission certification** Authorization granted to the patient for hospital admission, after a review of the patient's proposed need for inpatient services. In some settings, if predetermined criteria are not met, then the admission is not allowed.
- preagonal** (prē-äg'ō-nāl) [L. *prae*, before, in front of, + Gr. *agonia*, agony] Pert. to the condition immediately before death.
- preandrogens** (prē-än'drū-jēn) [" + "] Any biochemical precursors to male hormones. In women with polycystic ovaries, elevated levels of preandrogens such as androstenedione and dehydroepiandrosterone (DHEA) are found in the bloodstream. These steroid hormones are synthesized in the adrenal glands; DHEA, DHEA sulfate, and androstenedione are converted in target tissues (such as the prostate gland) into dihydrotestosterone, which produces masculinizing characteristics and stimulates the growth of prostate cancers. Preandrogen levels fall as people age. Decreases in preandrogens cause some of the symptoms of perimenopause and menopause.
- preanesthesia** (prē'än-ēs-thē'zē-ä) A light anesthesia produced by a medication given before anesthesia.
- preanesthetic** (prē'än-ēs-thēt'ík) [" + Gr. *anaesthesia*, lack of sensation] A preliminary drug given to facilitate induction of general anesthesia. SYN: *premedication* (2).
- preataxic** (prē-ä-ták'sík) [" + Gr. *ataxia*, lack of order] Before the onset of ataxia.
- preauthorization** (prē' awth' ēr-ī-zā' shūn) The agreement of a health care funding agent (e.g., a health maintenance organization, health insurer, or governmental agency) to defray the costs of a proposed treatment or procedure before its occurrence.
- preaxial** (prē-äk'sē-äl) [" + Gr. *axon*, axis] In front of the axis of a limb or of the body.
- prebiotic** (prē-bī-öt'ík) [" + "] A nutrient that stimulates the growth or health of bacteria living in the large intestine. Prebiotics are typically neither absorbed nor digested by the mammalian gastrointestinal tract. Their effects on human health occur indirectly, through their promotion of commensal organisms in the colon.
- precancer** (prē'kän-sēr) [" + *cancer*, crab] A condition that tends to become malignant.
- precancerous** (prē'kän'sēr-ūs) [" + *cancer*, crab] Pertaining to a growth that is not yet, but probably will become, cancerous. SYN: *premalignant*.
- precapillary** (prē' kăp' ī-lēr" ē) [" + *capillaris*, hairlike] Before or at the beginning of a capillary network, such as a precapillary sphincter.
- precaution** (pri-kaw' shūn) An action taken in advance to protect against danger, harm, or possible failure.
- airborne p.** Isolation, airborne.
- contact p.** Isolation, contact.
- droplet p.** Isolation, droplet.
- precautionary principle, principle of precaution** A risk management principle, originally developed in the environmental movement, based on the concept of avoiding any new action (e.g., introducing a new technology or a new drug) that carries a hypothetical risk for human or planetary health, regardless of whether the hypothesis has been subjected to formal testing.
- precautions, blood and body fluid** Universal precautions. SEE: *Standard Precautions Appendix*.
- precautions, standard** Guidelines recommended by the Centers for Disease Control and Prevention to reduce the risk of the spread of infection in hospitals. These precautions (e.g., handwashing and wearing personal protective equipment such as gloves, mask, eye protection, gown) apply to blood, all body fluids, secretions, excretions (except sweat), nonintact skin, and mucous membranes of all patients and are the primary strategy for successful nosocomial infection control. SEE: *Standard Precautions Appendix*.
- precautions, universal** SEE: *Standard Precautions Appendix*.
- precedent** In law, an action, ruling, or verdict that may be used as an example to be followed in the future.
- preceptor** (pri-sep'tēr, prē'sēp-) [L. *praecipere*, to direct] 1. A teacher or instructor. 2. An expert who supervises and instructs students in clinical practice experiences, esp. medicine or nursing.
- preceptorship** (pri-sep'tēr-shīp) A period of practical training under the su-



pervision of an experienced or certified practitioner or specialist. SEE: *preceptor*.

**precipitant** (prē-sīp'ī-tānt) [L. *praecipitare*, to cast down] A substance bringing about precipitation.

**precipitate** (prē-sīp'ī-tāt) **1.** A deposit separated from a suspension or solution by precipitation, the reaction of a reagent that causes the deposit to fall to the bottom or float near the top. **2.** To separate as a precipitate. **3.** Occurring suddenly or unexpectedly.

**precipitation** (prē-sīp'ī-tā'shūn) [L. *praecipitatio*] **1.** The process of a substance being separated from a solution by the action of a reagent so that a precipitate forms. **2.** The sudden and unprepared-for delivery of an infant. SEE: *precipitous delivery*.

**precipitation test** A test in which a positive reaction is indicated by formation of a precipitate in the solution being tested.

**precipitin** (prē-sīp'ī-tīn) An antibody formed in the serum of an animal owing to the presence of a soluble antigen, usually a protein. When added to a solution of the antigen, it brings about precipitation. The injected protein is called the antigen, and the antibody produced is the precipitin. It was originally thought that these antibodies were members of a unique class, but most antibodies are capable of precipitating when combined with their antigens. SEE: *autoprecipitin*; *precipitinogen*.

**precipitinogen** (prē-sīp'ī-tīn'ō-jēn) Any protein that, acting as an antigen, stimulates the production of a specific precipitin.

**precipitinoid** (prē-sīp'īt-īn-oyd) A precipitin that can no longer cause precipitation when mixed with its antigen but that retains its affinity to the antigen.

**precipitin test** A test in which two dissolved substances in a solution join to form a visible solid. The results depend on the strength of the attraction between the Fab fragment on the antibody and the corresponding epitope on the antigen (affinity) and on the stability of the complex (antibody avidity). The test demonstrates how immune complexes form in the circulation and are deposited in blood vessel walls. SEE: *precipitation test*.

**precipitophore** (prē-sīp'īt-ō-for) The part of a precipitin that produces the actual precipitation.

**precipitum** (prē-sīp'īt-ūm) The precipitate produced by action of a precipitin.

**preclinical** (prē-klin'ī-kāl) [L. *prae*, before, in front of, + Gr. *klinike*, medical treatment in bed] **1.** Occurring before diagnosis of a definite disease is possible. **2.** Classroom training and educa-

tion that occurs before actual observation and treatment of patients.

**preclinical dental training** Study and mastery of the theory and techniques related to the various dental procedures required prior to treating human patients.

**preclinical technique** In dentistry, the use of manikins, mechanical articulator, artificial or extracted teeth, and the variety of dental instruments and materials to study and master the techniques necessary to do clinical dentistry.

**precocious** (prē-kō'shūs) [L. *praecox*, ripening early] Achieving mental or physical development earlier than expected.

**precocity** (prē-kōs'ī-tē) Premature development of physical or mental traits.

**sexual p.** Onset of secondary sex characteristics at an earlier age than expected, typically before age 6–8 in girls or 9 in boys. SEE: *precocious puberty*.

**precognition** (prē'kōg-nīsh'ūn) [L. *prae*, before, in front of, + *cognoscere*, to know] Prior knowledge that an event will occur acquired pre-rationally.

**precoital** (prē-kō'ī-tāl) [" + *coitio*, a going together] Prior to sexual intercourse.

**precoma** (prē-kō'mā) [" + Gr. *koma*, a deep sleep] An imprecise term for lethargy or stupor.

**precondition** (prē'kūn-dīsh'īn) [" + "] To protect tissues from future injury with anesthetics, drugs, physical exercises, or other therapies.

**preconscious** (prē-kōn'shūs) [" + *conscious*, aware] Not present in consciousness but able to be recalled as desired.

**preconvulsive** (prē'kōn-vūl'siv) [" + *convulsio*, pulling together] Before a convulsion.

**precordia** (prē-kor'dē-ā) [L. *praecordia*] Plural of precordium.

**precordial thump** A sharp blow delivered to the precordial area of the chest in an attempt to terminate a lethal cardiac rhythm, such as ventricular fibrillation or ventricular tachycardia. SYN: *chest thump*.

**precordium** (prē-kor'dē-ūm, prē-kor'dē-ā) *pl.* **precordia** The area on the anterior surface of the body overlying the heart and lower part of the thorax. **precordial** (prē-kor'dē-āl), *adj.*

**precursor** (prē-kēr'sēr) A substance that precedes another substance (e.g., in a series of chemical reactions); or a substance from which another is synthesized.

**preidentin** (prē-dēn'tīn) Uncalcified dental matrix.

**prediabetes** (prē-dī'ā-bē'tēz) [" + Gr. *diabetes*, passing through] Early evidence either of autoimmune disease or impaired carbohydrate metabolism in patients who later develop overt diabe-

tes mellitus. The condition includes impaired fasting glucose and impaired glucose tolerance. In the U.S. in 2007 more than 50 million people were affected by prediabetes.

**prediastole** (prē'dī-ās'tō-lē) [*l'* + Gr. *diastellein*, to expand] The period in the cardiac cycle just before diastole.

**prediastolic**, (prē'dī-ās'tōl'ik), *adj.*

**predicrotic** (prē'dī-krōt'ik) [*l'* + Gr. *dikrotos*, beating double] Preceding the dicrotic wave of the sphygmographic tracing.

**prediction rules** Identifying and giving weight to the factors important in formulating a diagnosis, in order to establish the probability that a disease is present.

**predigestion** (prē'dī-jēs'chūn) [*l'* + *digestio*, carrying apart] Artificial proteolysis or digestion of proteins and amylolysis of starches before ingestion.

**predisposing** (prē'dis-pōz'ing) [*l'* + *disponere*, to dispose] Indicating a tendency to, or susceptibility to, disease.

**predisposition** (prē'dis-pō-zish'un) The potential to develop a certain disease or condition in the presence of specific environmental stimuli.

**prednisolone** (prēd-nīs'ō-lōn) A glucocorticosteroid drug, available in a variety of dosage forms. It is similar in action to cortisone.

**prednisone** (prēd'nī-sōn) A glucocorticosteroid with the same effects as cortisone.

**preeclampsia** (prē'ē-klāmp'sē-ā) [*l'* + Gr. *ek*, out, + *lampein*, to flash] A complication occurring in about 3% to 5% of pregnancies, characterized by increasing hypertension, proteinuria, and edema. The condition may progress rapidly from mild to severe and, if untreated, to eclampsia. It is the leading cause of fetal and maternal morbidity and death, esp. in underdeveloped countries. SEE: *eclampsia*; *HELLP syndrome*; *pregnancy-induced hypertension*; *Nursing Diagnoses Appendix*.

**ETIOLOGY:** The cause is unknown; incidence is higher among adolescents, in first pregnancies, in women who smoke, and in women who are diabetic or overweight. The disease mechanisms found in pre-eclampsia include generalized vasospasm, damage to the glomerular membranes, and hypovolemia and hemoconcentration due to a fluid shift from intravascular to interstitial compartments.

**SYMPTOMS:** The condition develops between the 20th week of gestation and the end of the first postpartum week; it usually occurs during the last trimester. Characteristic complaints include sudden weight gain, severe headaches, and visual disturbances. Indications of increasing severity include complaints of epigastric or abdominal pain; general-

ized, presacral, and facial edema; oliguria; and hyperreflexia. Objective findings include hypertension, edema, proteinuria, and hyperreflexia. SEE: *reflex, deep tendon*.

**TREATMENT:** Treatment includes bedrest, diet, drugs to manage high blood pressure, intravenous magnesium sulfate, or immediate delivery of the fetus, depending on the severity of the disease and the development of the fetus.

**PROGNOSIS:** A history of preeclampsia increases a woman's likelihood of vascular diseases (e.g., heart attacks and strokes) later in life. Women with preeclampsia should be monitored postpartum for elevated blood pressures, blood sugars, and lipid levels. Cardiovascular risk factors should be treated aggressively to prevent future atherosclerotic illness.

**pre-embryo** (prē'ēm'brē-ō) The morula and blastocyst stages produced by the division of the zygote until the formation of the embryo proper at the appearance of the primitive streak about 14 days after fertilization.

**pre-embryonic period** (prē-ēm'brē-ōn'ik) In human gestation the stage of prenatal development beginning with implantation of the fertilized egg and ending at day 4.

**pre-eruption** (prē'ē-rüp'shūn) [*l'* + *eruptio*, a breaking out] **1.** Before an eruption. **2.** The stage of tooth eruption when the tooth bud is in the bony socket prior to root formation. SEE: *eruptive stage* (2).

**pre-excitation, ventricular** (prē-ēk'sī-tā'shūn) [*l'* + *excitare*, to arouse] Premature excitation of the ventricle by an impulse that traveled a path other than through the atrioventricular node. This produces a short P-R interval. SEE: *Wolff-Parkinson-White syndrome*.

**pre-existing condition** Any injury, disease, or physical condition occurring prior to an arbitrary date; usually used in reference to the date of issuance of a health insurance policy. In some cases, a pre-existing condition results in an exclusion from coverage for costs resulting from the injury, disease, or condition.

**preferred provider organization** ABBR: PPO. An incorporated group of physicians, hospital(s), nurses, and other health care workers, who jointly assume the clinical and financial responsibilities for delivering health care to enrolled groups of insured patients. The providers are semi-independent agents who agree to provide care at reduced rates.

**prefrontal** (prē-frōn'tāl) [*l'* + *frons*, front] **1.** The middle portion of the ethmoid bone. **2.** In the anterior part of the frontal lobe of the brain.

**preganglionic** (prē'gāng-lē-ōn'ik) [*l'* + Gr. *ganglion*, knot] **1.** Situated in front

of or anterior to a ganglion. **2.** Situated before a ganglion, such as a preganglionic neuron.

**preganglionic fiber** The axon of a preganglionic neuron.

**pregenital** (prĕ-jĕn'ĭ-tāl) [r + *genitalia*, genitals] In psychology, relating to that period when erotic interest in the reproductive organs and functions is not yet organized.

**pregnancy** (prĕg'nān-sē) [L. *praegnans*] The condition of having a developing embryo or fetus in the body after successful conception. The average duration of pregnancy is about 280 days. Estimation of the date on which delivery should occur is based on the first day of the last menstrual period. SEE: *Naegele's rule*; table; *prenatal care*; *prenatal diagnosis*; *Nursing Diagnoses Appendix*.

**DEMOGRAPHICS:** About 7 million Americans become pregnant each year, and about two thirds of these pregnancies result in live births. In 2005, there were 4,140,419 live births in the US.

**SIGNS AND SYMPTOMS:** Presumptive and probable signs are those commonly associated with pregnancy but may be due to other causes, such as oral contraceptive therapy. *Presumptive symptoms* include amenorrhea, nausea and vomiting, breast tenderness, urinary frequency, fatigue, chloasma, vaginal hyperemia (Chadwick's sign), and "quickening." *Probable signs* include increased abdominal girth, palpable fetal outline, softening of the lower uterine segment (Hegar's sign), softening of the cervix (Goodell's sign), and immunodiagnostic pregnancy tests. *Positive signs and symptoms* of pregnancy are auscultation of fetal heart sounds, fetal movements felt by the examiner, and an identifiable embryonic outline on ultrasound.

**PHYSICAL CHANGES:** The pregnant woman experiences many physiological alterations related to the increased levels of estrogen and progesterone and to the demands of the growing fetus; every system in the woman's body responds to these changes.

**Reproductive tract changes:** Alterations in uterine size, shape, and consistency include an increase in uterine muscle mass over the months of pregnancy. In response to elevated estrogen and progesterone levels, the cervix and lower uterine segment soften. A thick mucous plug fills the cervical canal. Vaginal secretions increase, and vaginal pH is more acidic (pH = 3.5 to 6.0). Change in vaginal pH discourages the survival and multiplication of bacteria; however, it also encourages infection by *Candida albicans*. The vagina elongates as the uterus rises in the pelvis; the mucosa thickens, with increases in secre-

tions, vascularity, and elasticity. SEE: *Chadwick's sign*; *Goodell's sign*; *Hegar's sign*.

**Breast changes:** The breasts become enlarged, tender, and more nodular. The areolae darken; the nipples become more sensitive and erectile; and Montgomery's tubercles enlarge. Colostrum may leak out during the last trimester, as the breasts prepare for lactation.

**Endocrine glands:** The size and activity of the thyroid gland increase markedly. Thyroid-binding globulin and triiodothyronine levels rise, while thyroid stimulating hormone levels drop slightly. These changes allow the pregnant woman to meet the endocrine needs imposed by the developing fetus, and other body changes that occur during pregnancy. Pituitary activity increases; prolactin levels increase ensuring lactation; placental hormones prevent ovulation and encourage development of the corpus luteum. Parathyroid activity decreases during the first trimester, then increases throughout the pregnancy to meet the increasing calcium demands of the fetus. Insulin resistance increases; this poses a risk, for some women, of glucose intolerance or gestational diabetes mellitus.

**Cardiovascular alterations:** Circulating blood volume increases progressively throughout pregnancy, peaking in the middle of the third trimester. Although the red blood cell count rises by about 30%, a 50% increase in blood volume creates dilutional anemia. The lower relative hematocrit decreases blood's viscosity. However, a hemoglobin concentration of less than 11 g is usually due to iron deficiency. Rising levels of clotting factors VII, VIII, IX, X, fibrinogen, and von Willebrand factor increase coagulability. The pulse rate increases, along with cardiac stroke volume. Peripheral vascular resistance drops. Mid-trimester blood pressure may be slightly lower than normal but remains essentially unchanged.

**Skeletal system:** Softening and increased mobility of the pelvic articulations is reflected in the waddling gait of pregnancy. As pregnancy progresses, the woman's center of gravity shifts, and the lumbar curve increases to compensate for the growing anterior weight of the gravid uterus. Problems with dental caries may become more prominent during pregnancy but can be prevented with oral rinses (such as chlorhexidine) and regular brushing and flossing.

**Respiratory system:** The effects of progesterone on smooth muscle include a decreased airway resistance, which enables the woman to meet her increased needs for oxygen by permitting a 30% to 40% increase in tidal volume and a 15% to 20% rise in oxygen consumption. The

Pregnancy Table for Expected Date of Delivery

Jan.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
<b>Oct.</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>	<b>13</b>	<b>14</b>	<b>15</b>	<b>16</b>	<b>17</b>	<b>18</b>	<b>19</b>	<b>20</b>	<b>21</b>	<b>22</b>	<b>23</b>	<b>24</b>	<b>25</b>	<b>26</b>	<b>27</b>	<b>28</b>	<b>29</b>	<b>30</b>	<b>31</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>
Feb.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
<b>Nov.</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>	<b>13</b>	<b>14</b>	<b>15</b>	<b>16</b>	<b>17</b>	<b>18</b>	<b>19</b>	<b>20</b>	<b>21</b>	<b>22</b>	<b>23</b>	<b>24</b>	<b>25</b>	<b>26</b>	<b>27</b>	<b>28</b>	<b>29</b>	<b>30</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	
Mar.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
<b>Dec.</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>	<b>13</b>	<b>14</b>	<b>15</b>	<b>16</b>	<b>17</b>	<b>18</b>	<b>19</b>	<b>20</b>	<b>21</b>	<b>22</b>	<b>23</b>	<b>24</b>	<b>25</b>	<b>26</b>	<b>27</b>	<b>28</b>	<b>29</b>	<b>30</b>	<b>31</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
April	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
<b>Jan.</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>	<b>13</b>	<b>14</b>	<b>15</b>	<b>16</b>	<b>17</b>	<b>18</b>	<b>19</b>	<b>20</b>	<b>21</b>	<b>22</b>	<b>23</b>	<b>24</b>	<b>25</b>	<b>26</b>	<b>27</b>	<b>28</b>	<b>29</b>	<b>30</b>	<b>31</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
May	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
<b>Feb.</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>	<b>13</b>	<b>14</b>	<b>15</b>	<b>16</b>	<b>17</b>	<b>18</b>	<b>19</b>	<b>20</b>	<b>21</b>	<b>22</b>	<b>23</b>	<b>24</b>	<b>25</b>	<b>26</b>	<b>27</b>	<b>28</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>
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<b>Mar.</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>	<b>13</b>	<b>14</b>	<b>15</b>	<b>16</b>	<b>17</b>	<b>18</b>	<b>19</b>	<b>20</b>	<b>21</b>	<b>22</b>	<b>23</b>	<b>24</b>	<b>25</b>	<b>26</b>	<b>27</b>	<b>28</b>	<b>29</b>	<b>30</b>	<b>31</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>
July	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
<b>April</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>	<b>13</b>	<b>14</b>	<b>15</b>	<b>16</b>	<b>17</b>	<b>18</b>	<b>19</b>	<b>20</b>	<b>21</b>	<b>22</b>	<b>23</b>	<b>24</b>	<b>25</b>	<b>26</b>	<b>27</b>	<b>28</b>	<b>29</b>	<b>30</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>
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<b>May</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>	<b>13</b>	<b>14</b>	<b>15</b>	<b>16</b>	<b>17</b>	<b>18</b>	<b>19</b>	<b>20</b>	<b>21</b>	<b>22</b>	<b>23</b>	<b>24</b>	<b>25</b>	<b>26</b>	<b>27</b>	<b>28</b>	<b>29</b>	<b>30</b>	<b>31</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>
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<b>June</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>	<b>13</b>	<b>14</b>	<b>15</b>	<b>16</b>	<b>17</b>	<b>18</b>	<b>19</b>	<b>20</b>	<b>21</b>	<b>22</b>	<b>23</b>	<b>24</b>	<b>25</b>	<b>26</b>	<b>27</b>	<b>28</b>	<b>29</b>	<b>30</b>	<b>31</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>
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<b>July</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>	<b>13</b>	<b>14</b>	<b>15</b>	<b>16</b>	<b>17</b>	<b>18</b>	<b>19</b>	<b>20</b>	<b>21</b>	<b>22</b>	<b>23</b>	<b>24</b>	<b>25</b>	<b>26</b>	<b>27</b>	<b>28</b>	<b>29</b>	<b>30</b>	<b>31</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>
Nov.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
<b>Aug.</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>	<b>13</b>	<b>14</b>	<b>15</b>	<b>16</b>	<b>17</b>	<b>18</b>	<b>19</b>	<b>20</b>	<b>21</b>	<b>22</b>	<b>23</b>	<b>24</b>	<b>25</b>	<b>26</b>	<b>27</b>	<b>28</b>	<b>29</b>	<b>30</b>	<b>31</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>
Dec.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
<b>Sept.</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>	<b>13</b>	<b>14</b>	<b>15</b>	<b>16</b>	<b>17</b>	<b>18</b>	<b>19</b>	<b>20</b>	<b>21</b>	<b>22</b>	<b>23</b>	<b>24</b>	<b>25</b>	<b>26</b>	<b>27</b>	<b>28</b>	<b>29</b>	<b>30</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>

The date of the last menstrual period is in the top line (light-face type) of the pair of lines. The dark number (bold-face type) in the line below will be the expected day of delivery.

effects of estrogen include edema and congestion of the nasal mucosa, reflected in nosebleeds and nasal stuffiness.

**Gastrointestinal system:** Nausea and vomiting is the single most common complaint during the first trimester. Progesterone-related diminished motility contributes to common complaints of heartburn and constipation. Hemorrhoids are common and caused by increased pressure in the lower pelvis and constipation.

**Immune system** Alterations in T helper cell dominance produce immunological tolerance for the fetus and the placenta, both of which contain antigens that are alien to the mother. During pregnancy, autoimmune diseases such as rheumatoid arthritis or systemic lupus erythematosus tend to become less active.

**Skin:** Pigmentation changes in pregnancy include chloasma (the so-called mask of pregnancy), areolar darkening, and linea nigra (a pigmented line that vertically bisects the abdomen). They reflect estrogen-related stimulation of skin melanocytes. Striae gravidarum, also called stretch marks, may appear in the skin of the abdomen, breasts, and thighs.

**Urinary system:** By middle of the first trimester, the glomerular filtration rate has risen by about 50%; in compensation, tubular reabsorption also increases. Although urinary frequency is common in the first and last trimesters, bladder capacity actually increases; however, pressure from the growing uterus reduces the volume required to stimulate voiding. During the second trimester, the uterus rises out of the pelvis, becoming an abdominal organ and relieving bladder compression until late in the third trimester.

**Weight:** In average-sized individuals, expected first trimester weight gain is 2 to 5 lb. Total weight gain and the pattern by which it increases should be monitored to enable early signs of pregnancy-related problems common to the particular point in gestation. The Institute of Medicine recommends the following weight gains during singleton pregnancies: a woman with a prepregnancy body mass index less than 19.8 should gain 25 to 39 lb (11.4 to 17.7 kg); a woman with a prepregnancy body mass index from 19.8 to 26 should gain 25 to 34 lb (11.4 to 15.5 kg); and a woman with a prepregnancy body mass index from 26 to 29 should gain 15 to 24 lb (6.8 to 10.9 kg). The recommended weight gains during pregnancy are different for multiple gestations (e.g., a woman carrying triplets should gain about 50 lb [22.7 kg] during the course of her pregnancy).

**PATIENT CARE:** An essential component to anticipatory guidance and patient teaching is to encourage the woman's active participation in her own health maintenance and pregnancy progress. Health care providers describe to pregnant women common complaints related to normal physiological changes of pregnancy and suggest actions to minimize discomfort.

**DISORDERS:** *Nausea and vomiting.* SEE: *morning sickness.*

**Heartburn:** Hormone-related delayed gastric emptying, cardiac sphincter relaxation, and stomach displacement by the growing uterus contribute to reflux. The use of low-sodium or combination aluminum hydroxide/magnesium hydroxide preparations is recommended for symptomatic relief. For severe, unresponsive heartburn, over-the-counter H<sub>2</sub> blockers, such as ranitidine (Zantac) or famotidine (Pepcid), may be recommended.

**Constipation:** The woman should increase fiber and fluid intake. She also may use stool softeners.

**Muscle cramps:** The woman may relieve the so-called "charleyhorse" that occurs during sleep by dorsiflexing the foot of the affected leg. A calcium-phosphorus imbalance may contribute to increased frequency of this problem, although the causes are not clear. The woman can increase calcium intake by drinking the recommended daily quart of milk or by drinking a pint of milk daily and taking a calcium supplement with vitamin D.

**Back pain:** Growing anterior mass, shift in center of gravity, and increased lumbar curve contribute to backaches. To relieve discomfort, the pregnant woman should wear well-fitting, low-heeled shoes and perform exercises that increase abdominal muscle tone. SEE: *pelvic rock; pelvic tilt.*

**Dependent edema:** Pedal edema is a common third-trimester complaint related to decreased venous return from the extremities. The woman is advised to rest frequently and to elevate her feet. She should report promptly any edema of the face, hands, or sacral area to facilitate early diagnosis and management of pregnancy-induced hypertension.

**Varicose veins:** Decreased venous return from the extremities and compression of vascular structures by the growing uterus aggravate any weakness in the vascular walls and valves. Varicosities often occur in the legs, vulva, and pelvis. The woman should avoid tight clothing and prolonged standing. Other preventive and therapeutic measures include wearing support stockings, resting in left Sims' position, and elevating the lower limbs during sleep.



**Hemorrhoids:** Temporary symptomatic relief may be obtained by Sitz baths and analgesic ointments. The woman also should be instructed in how to reinsert the hemorrhoid with a well-lubricated finger, holding it in place for 1 to 2 min before releasing the pressure. SEE: *constipation*.

**Vaginal discharge:** A normal increase in vaginal discharge occurs during pregnancy. Common perineal hygiene usually is effective as a comfort measure; douching is contraindicated during pregnancy. The woman should contact her primary caregiver promptly if profuse, malodorous, or blood-tinged discharge occurs. SEE: *vaginitis*.

**Dyspnea:** Shortness of breath occurs as the growing uterus presses on the woman's diaphragm. Elevation of the head and shoulders may provide some relief. The dyspnea disappears when lightening occurs.

**Pruritus:** The normal stretching of the skin may generate itching on the breasts, abdomen, and vulva. Pruritic urticarial papules and plaques of pregnancy is the most common benign dermatosis of pregnancy. Occurring in the third trimester, it usually resolves spontaneously after delivery. If severe, topical emollients, steroids, and, antihistamines may provide some relief. Use of an emollient lotion may be suggested; the patient is instructed to inform her primary caregiver if vulvovaginal itching occurs in conjunction with an increase or alteration in vaginal discharge. SEE: *vaginitis*.

**NUTRITION:** A woman's nutritional status before and during pregnancy is an important factor that affects both her health and that of her unborn child. Nutritional assessment is an essential part of antepartal care. In addition, the presence of pre-existing and coexisting disorders, such as anemia, diabetes mellitus, chronic renal disease, and phenylketonuria, may affect dietary recommendations. Substance abuse increases the risk of inadequate nutrition, low maternal weight gain, low-birth-weight infants, and perinatal mortality.

Dietary recommendations emphasize a high-quality, well-balanced diet. Increased amounts of essential nutrients (i.e., protein, calcium, magnesium, zinc, and selenium, B vitamins, vitamin C, folate, and iron) are necessary to meet nutritional needs of both mother and fetus. Most nutritional and metabolic needs can be met by eating a balanced daily diet containing approximately 35 kcal for each kilogram of optimal body weight plus an additional 300 kcal/day during the second and third trimesters. Because it is difficult to meet all the daily dietary recommendations, vita-

min and iron supplements are recommended.

**CONSIDERATIONS:** *Travel during pregnancy:* Preparing for travel during pregnancy will depend upon the number of weeks gestation, the duration of the travel, and the method (i.e., auto, boat, bus, train, airplane).

Safety belts, preferably the combined lap and shoulder type, should be worn with the lap portion below the pregnant abdomen not across it. If nausea and vomiting of pregnancy is a factor, travel by sea isn't advisable. If anti-motion-sickness medication is used, it should be one approved for use during pregnancy (or antinausea wrist bands may be used). Travel during the last part of pregnancy isn't advised unless obstetrical care is available at the destination(s). It is important to have a copy of current medical records along when traveling. Travel abroad should be discussed with the obstetrician so that appropriate immunizations can be given. For travel in an area known to be endemic for malaria, certain drugs will be needed for prophylaxis.



Live virus immunization should not be administered during pregnancy.

**Working during pregnancy:** Healthy pregnant women who are employed in jobs that present no more risk than those in daily life are encouraged to continue working if they desire until shortly before delivery.

**Exercise during pregnancy:** If the pregnancy is progressing normally, exercise should be continued. The amount and type of exercise is an individual matter. A woman who has exercised regularly before her pregnancy should experience no difficulty with continuing; however, a previously sedentary woman should not attempt to institute a vigorous exercise program such as long-distance running or jogging during her pregnancy. No matter what the type of exercise, it is important to remember that, with the progress of pregnancy, the center of gravity will change and probably prevent participation at the same level and skill as before pregnancy. Sports to avoid include water skiing, horseback riding, and scuba diving. In horseback riding, in addition to the possibility of falling from the horse, the repeated bouncing may lead to bruising of the perianal area. Scuba diving may lead to decompression sickness and bends and to intravascular air embolism in the fetus. Women who breast-feed their children should continue exercising if they maintain hydration and adequate breast support.

**Sexual intercourse during pregnancy:** Women who are experiencing normally progressing pregnancies need not avoid intercourse. Pregnant women should refrain from coitus if they have a history of preterm labor or premature rupture of membranes and if they are bleeding or have ruptured membranes.

**Tests during pregnancy:** Common tests include blood tests for nutritional or sickle cell anemia, blood type and Rh factor, rubella titers, syphilis, and serum alpha-fetoprotein for the presence of neural tube defects such as spina bifida. Additional testing may include determining HIV status and hepatitis immunity. Ultrasound may be used to determine age, rate of growth, position, some birth defects, and fetal sex. Chorionic villus sampling may be done early in pregnancy if the family history indicates potential for genetic diseases. Second trimester amniocentesis may be used to detect chromosomal abnormalities, genetic disorders, and fetal sex. In late pregnancy, nonstress tests, contraction stress tests, and fetal biophysical profiles may be done; amniocentesis may be done to evaluate fetal lung maturity. SEE: table.

**Pregnancy in adolescence:** Although pregnancy among teenagers is decreasing in the United States, about 7% of all American teenage girls still become pregnant in any given year—this is one of the highest rates of teen pregnancy in developed cultures. Sociocultural factors are believed to contribute to the high incidence of pregnancies among this population. Demographic data indicate that teen pregnancy is more likely to be associated with being single, having low socioeconomic status, and lacking social support systems. Pregnant teenagers are believed to be at high risk for some complications of preg-

nancy; if, however, they seek prenatal care early and consistently cooperate with recommendations, the risk is comparable to that for other age groups. Clinical data identify a common pattern of late entry to the prenatal care system, failure to return for scheduled appointments, and noncompliance with medical and nursing recommendations. As a result of these behaviors, adolescents are at higher risk for pregnancy-related complications, such as iron-deficiency anemia, pregnancy-induced hypertension, preterm labor and delivery, low birthweight newborns, and cephalopelvic disproportion. Other health problems seen more commonly in pregnant adolescents include sexually transmitted diseases and substance abuse. SEE: *high-risk pregnancy*; *Nursing Diagnoses Appendix*.

**Mature pregnancy:** A growing number of women are experiencing their first pregnancies after age 35. The incidence of fetal demise among this population is 6:1000 births, double the rate for women under 35. Many factors may contribute to the increased risk, including pre-existing and coexisting conditions, such as diabetes mellitus, hypertension, and uterine fibroids. Mature women are identified as being at higher risk for spontaneous abortion, pre-eclampsia, abruptio placentae, placenta previa, gestational diabetes, cesarean birth, and chromosomal abnormalities such as Down syndrome. Multiple-gestation secondary assisted reproduction also may be a factor in fetal loss.

**Pregnancy after menopause:** Very rarely, postmenopausal women have become pregnant through embryo donation and have successfully carried the pregnancy to term delivery. Prior to undergoing this procedure, the women had been taking hormone replacement therapy. Previously, it had been assumed that the postmenopausal uterus would not be capable of supporting the growth and development of an embryo. Pregnancies in older women are considered high risk for reasons similar to those related to mature pregnancy. Late in the third trimester, the woman may be instructed to keep a fetal activity record and undergo regularly scheduled nonstress tests.

**abdominal p.** Ectopic gestation in which the embryo develops in the peritoneal cavity. SYN: *abdominocyesis*. SEE: *ectopic pregnancy*.

**ampullar p.** Ectopic implantation of the zygote in the ampulla of a fallopian tube; 78% of all ectopic pregnancies occur in this site.

**bigeminal p.** Intrauterine twin gestation.

**cervical p.** Pregnancy with implan-

### Recommended Screening for Pregnant Women

- Assessment of pregnant women for alcohol misuse and tobacco use
- HIV antibodies (blood test)
- Chlamydia and gonorrhea (antigen or culture) tests
- Hepatitis B virus (blood test)
- Rh incompatibility (blood test)
- Syphilis (blood test)
- Urinalysis for asymptomatic bacteriuria
- Nutritional assessment
- Assessment for intimate partner violence

SOURCE: Adapted from the recommendations of the US Preventive Services Task Force, Agency for Healthcare Research and Quality, "The Guide to Clinical Preventive Services 2006."

tation of the embryo in the cervical canal.

**coitus during p.** Sexual intercourse during pregnancy. There is no evidence that this has adverse effects on the pregnancy or the embryo (i.e., perinatal mortality). Also, sexual intercourse does not initiate labor.

**cornual p.** A rare type of ectopic pregnancy (found in about 2% to 4% of all ectopic pregnancies) in which implantation takes place in one of the horns of the uterus. The uterine horn may rupture between the 12th and 16th week of gestation, causing life-threatening shock. Traditionally, cornual pregnancies have been managed with laparotomy and hysterectomy, although conservative management strategies are employed occasionally.

**ectopic p.** Extruterine implantation of a fertilized ovum, usually in the fallopian tubes, but occasionally in the peritoneum, ovary, or other locations. Ectopic implantation occurs in about 1 of every 150 pregnancies. Symptoms usually occur between 6 and 12 weeks after conception. SYN: *extruterine pregnancy*. SEE: *illus; pregnancy*.

**SYMPTOMS:** Early complaints are consistent with those of a normal pregnancy (i.e., amenorrhea, breast tenderness, nausea). Pregnancy test results are positive owing to the presence of human chorionic gonadotropin (hCG) in blood and urine. Signs and symptoms arise as the growing embryo distends the fallopian tube; associated complaints include intermittent, unilateral, colicky abdominal pain. Complaints associated with tubal rupture include sharp unilateral pelvic or lower abdominal pain; orthostatic dizziness and vertigo or syncope; and referred shoulder pain related to peritoneal irritation from abdominal bleeding (hemoperitoneum). Signs of hypovolemic shock may indicate extensive abdominal bleeding. Vaginal bleeding, typically occurring after the onset of pain, is the result of decidual sloughing.

**LOCATIONS:** *Abdominal:* The incidence of pregnancy in the abdominal cavity with the conceptus attached to an abdominal organ is between 1:3000 and 1:4000 births. *Ovarian:* Conception and implantation within the ovary itself occurs in approximately 1 in 7,000 to 1 in 50,000 pregnancies. *Tubal:* Ninety to 95% of ectopic pregnancies occur in the fallopian tube; of these, 78% become implanted in the uterine ampulla, 12% in the isthmus, and 2% to 3% in the interstices.

**DIAGNOSIS:** Transabdominal or transvaginal pelvic ultrasonography is used to identify the location of the pregnancy. It has also largely replaced cul-

docentesis for confirmation of hemoperitoneum.

**TREATMENT:** An operative approach is most common. Laparoscopy and linear laser salpingostomy can be used to excise early ectopic implantations; healing is by secondary intention. Segmental resection allows salvage and later reconstruction of the affected tube. Salpingectomy is reserved for cases in which tubal damage is so extensive that reanastomosis is not possible. Methotrexate has been used successfully to induce dissolution of unruptured tubal masses less than 3.5 cm. Posttreatment monitoring includes serial quantitative b-hCG levels, to be certain that the pregnancy has ended.

**PATIENT CARE:** *Preoperative:* The patient is assessed for pain and shock. Vital signs are monitored and oxygen administration by nonrebreather mask is started. An IV fluid infusion via a large-bore cannula is started and blood is drawn to type and cross (including Rh-compatibility) for potential transfusion. Medications (including RhoGAM if the patient is Rh negative) may be prescribed and administered and the patient's response evaluated. The patient's and family's wishes regarding religious rites for the products of conception are determined. Both patient and family are encouraged to express their feelings of fear, loss, and grief. Information regarding the condition and the need for surgical intervention is clarified.

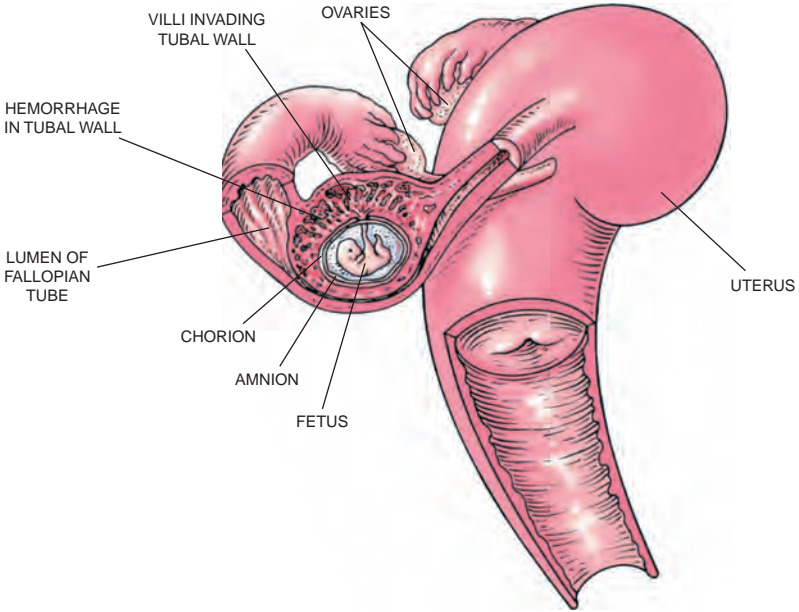
*Postoperative:* Vital signs are monitored until stable, incisional dressings are inspected, vaginal bleeding is assessed, and the patient's physical and emotional reactions to the surgery are evaluated. Prescribed analgesics and other medications are administered, and the patient evaluated for desired and adverse effects. The grieving process is anticipated, and both the patient and family are referred for further counseling as needed. SEE: *Nursing Diagnoses Appendix*.

**extrauterine p.** Ectopic pregnancy.  
**false p.** Pseudocyesis.

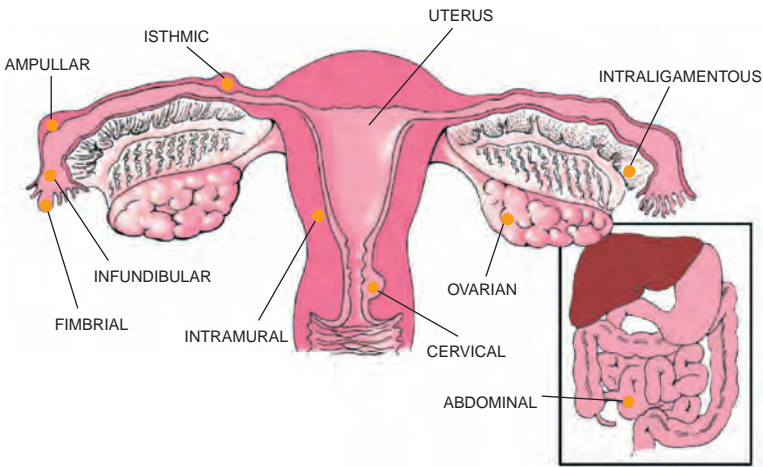
**heterotopic p.** Combined intrauterine and extrauterine pregnancies.

**high-risk p.** A pregnancy in which maternal factors such as diabetes mellitus, hypertension, kidney disease, viral infections, vaginal bleeding, multiple pregnancies, substance abuse, age under 17 or over 35, or toxic exposures are present. Pregnancy in association with these conditions is more likely to compromise the health of the mother or developing fetus than are normal pregnancies.

**hydatid p.** Pregnancy giving rise to a hydatidiform mole. SEE: *gestational trophoblastic disease; hydatid mole*.



ACTUAL ECTOPIC PREGNANCY



VARIOUS SITES OF ECTOPIC PREGNANCY

**interstitial p.** Rare condition in which the zygote implants in the portion of the fallopian tube that traverses the wall of the uterus. SYN: *mural p.*

**intraligamentary p.** Pregnancy that occurs within the broad ligament.

**p. loss** Miscarriage or stillbirth.

**mask of p.** Chloasma gravidarum.

**membranous p.** Pregnancy in which the amniotic sac ruptures and the em-

bryo comes to lie in direct contact with the uterine wall.

**mesenteric p.** Tuboligamentary pregnancy.

**molar p.** Pregnancy in which, instead of the ovum developing into an embryo, it develops into a mole. SEE: *gestational trophoblastic disease; hydatid mole.*

**multifetal p. reduction** In multiple

pregnancies (e.g., triplets, quadruplets), the procedure for reducing the number of fetuses, to minimize the risk of maternal and fetal complications later in the pregnancy.

**multiple p.** The presence of two or more embryos in the uterus. If drugs are not used to promote fertility, the incidence of natural twin pregnancies is 1: 94; however, 20% of women who have undergone treatment with fertility drugs develop multiple pregnancies. In about one-half of twin pregnancies diagnosed by ultrasound early in the first trimester, one twin will silently abort, and this may or may not be accompanied by bleeding. This has been termed the vanishing twin. The incidence of birth defects in each embryo of a twin pregnancy is twice that in singular pregnancies. SEE: *parabiosis*.

**mural p.** Interstitial pregnancy.

**ovarian p.** Implantation of the embryo in the substance of the ovary.

**phantom p.** Pseudocyesis.

**postdate p.** Pregnancy that extends beyond 42 wk of gestation. An average of 10% of normal pregnancies are so classified. SEE: *post-term pregnancy*; *postmaturity syndrome*.

**surrogate p.** SEE: *mother, surrogate*.

**tubal p.** A form of ectopic pregnancy in which the embryo develops in the fallopian tube.

**tuboabdominal p.** Extrauterine pregnancy in which the embryonic sac is formed partly in the abdominal extremity of the oviduct and partly in the abdominal cavity.

**tuboligamentary p.** Pregnancy occurring in the uterine tube and extending into the broad ligament. SYN: *mesenteric pregnancy*.

**tubo-ovarian p.** Extrauterine pregnancy in which the embryonic sac is partly in the ovary and partly in the abdominal end of the fallopian tube.

**uteroabdominal p.** Twin pregnancy with one embryo in the uterus and the other in the abdominal cavity.

**pregnancy-related death** The death of a woman occurring within 6 weeks after pregnancy, conception, or termination of pregnancy.

**pregnancy-specific  $\beta_1$  glycoprotein** A protein found in 97% of women who have been pregnant for 6 to 8 weeks and in 100% of those at later stages of pregnancy. The function of this protein is not known, but it may be useful in estimating the quality of placental function.

**pregnancy test** A test used to determine whether conception has occurred. In addition to the clinical signs and symptoms of pregnancy, almost none of which are reliable within the first several weeks of pregnancy, chemical tests done in the physician's office are quite accurate by as early as the time the first

menstrual period is missed. There are also test kits available for purchase without a prescription. If over-the-counter tests are used, it is very important to follow the directions carefully.

A major class of pregnancy tests is those using immunodiagnostic procedures. They are the hemagglutination inhibition test, which requires a sample of urine; radioreceptor assay, which requires blood from the patient; radioimmunoassay, which requires a blood sample; and monoclonal antibody determination, which requires a sample of urine. In general, these tests are accurate beginning the 40th day following the first day of the last menstrual period; the monoclonal antibody test is somewhat more sensitive. The reliability of the test methods increases as pregnancy continues.

**pregnancy wheel** A round calculator, similar to a slide rule in its construction, that uses the first day of the last menstrual period of a pregnant woman to identify the expected date that her baby will be born.

**pregnane** (prĕg'nān)  $C_{21}H_{36}$ ; the organic compound that is a precursor of two series of steroid hormones: the progesterones and several adrenal cortical hormones.

**pregnanediol** (prĕg'nān-dī'ōl)  $C_{21}H_{36}O_2$ ; the inactive end product of metabolism of progesterone present in the urine. The amount in the urine increases during the premenstrual or luteal phase of the menstrual cycle and during pregnancy.

**pregnanetriol** (prĕg'nān-trī'ōl) A metabolite of progesterone. Its presence in the urine is increased in those who have congenital adrenal hyperplasia.

**pregnant** (prĕg'nānt) [L. *praegnans*] Having conceived; with child. SYN: *gravid*.

**pregnene** (prĕg'nĕn) A steroid that forms the nucleus of progesterone.

**pregnavidic** (prĕ-grā-vid'ik) [L. *prae*, before, in front of, + *gravid*, pregnant] Before pregnancy.

**prehallux** (prĕ-hāl'ŭks) [ʹ + *hallux*, the great toe] A supernumerary bone, accessory navicular pedis, or sometimes a prolongation inward of it on the foot.

**prehemiplegic** (prĕ'hĕm-ĭ-plĕ'jĭk) [ʹ + Gr. *hemi*, half, + *plege*, a stroke] Occurring before an attack of hemiplegia.

**prehensile** (prĕ-hĕn'sil) [L. *prehendere*, to seize] Adapted for grasping or holding, esp. by encircling an object.

**prehension** (prĕ-hĕn'shŭn) [L. *prehensio*] The primary function of the hand; includes pinching, grasping, and seizing.

**Prehn's sign** (prānz, prĕnz) A decrease in scrotal pain with elevation of the testicle. It is a physical finding in patients with epididymitis and testicular torsion.



**prehormone** (prē" hawr' mōn") A precursor of a hormone.

**prehospital care** The care a patient receives from emergency medical service before arriving at the hospital. This is usually done by emergency medical technicians and paramedics. SEE: *out-of-hospital*.

**prehospital care report** ABBR: PCR. The standardized form used by all emergency medical service agencies within an EMS system, to document patient care and assessments conducted in the field.

**prehospital provider** A healthcare provider trained and certified or licensed by the state, who practices emergency assessment and care in the out-of-hospital setting. SEE: *emergency medical technician; first responder; paramedic*.

**prehypertension** (prē"hi-pēr-tēn'shīn) [" + "] Having a systolic blood pressure between 120 and 140 mm Hg or a diastolic blood pressure between 80 and 90 mm Hg. People with prehypertension have an increased risk for strokes, heart attacks, and kidney failure relative to individuals whose blood pressure is below 120/80.

**preictal** (prē-īk'tāl) [" + *ictus*, stroke] The period just prior to a stroke or convulsion.

**preicteric** (prē-īk-tēr'īk) [" + *ikteros*, jaundice] In liver disease, the period prior to the appearance of jaundice.

**preimmunization** (prē-īm"ū-nī-zā'shūn) [" + *immunis*, safe] Immunization produced artificially in very young infants.

**preimplantation** (prē" im-plān-tā'shūn) Before one thing is secured within another, e.g., before embedding of the blastocyst in the uterine wall.

**preinvasive** (prē"īn-vā'sīv) [" + *in*, into, + *vadere*, to go] Referring to a stage of development of a malignancy in which the neoplastic cells have not metastasized.

**Preiser's disease** (prī'zērz) [Georg K.F. Preiser, Ger. orthopedic surgeon, 1879–1913] Osteoporosis caused by trauma and affecting the scaphoid bone of the wrist.

**prejudgment** (prē-jūj'mēnt) [" + "] Before a court rules. In malpractice litigation it refers to what occurred at the time of an injury or at the date of filing a claim.

**prejudice** 1. A preconceived judgment or opinion formed without factual knowledge. 2. Irrational hostility, hatred, or suspicion of a particular group, race, or religion.

**prekallikrein** (prē-kāl-lī-krīn) A cofactor in blood coagulation. SEE: *coagulation, blood*.

**preleukemia** (prē-loo-kē'mē-ă) Myelodysplasia (1).

**prelingual** (prē-ling'gwīl) [" + "] Oc-

curing before the development and use of speech and language.

**preload** (prē-lōd) In cardiac physiology, the end-diastolic stretch of a heart muscle fiber. In the intact ventricle, this is approx. equal to the end-diastolic volume or pressure. At the bedside, preload is estimated by measuring the central venous pressure or the pulmonary capillary wedge pressure. SEE: *afterload*.

**premalignant** (prē-mū-līg'nānt) [" + "] Precancerous.

**Premarin** (prēm'ī-rīn) SEE: *conjugated estrogen*.

**premature** (prē-mā-chūr') [L. *praematurus*, ripening early] Born or manifest before full development has been achieved.

**premature rupture of membranes** ABBR: PROM. In pregnancy, rupture of the amniotic membrane prior to the time labor was expected. This occurs in about 10% of patients. PROM is the single most common diagnosis leading to admission of the newborn to intensive care nursing.

PROM is more common in women of poor socioeconomic groups, teenagers, single women, smokers, and women who have a sexually transmitted organism cultured from the cervix or vagina in the first half of pregnancy. PROM increases the risk of intrauterine infection.

**preterm p.r.o.m.** ABBR: PPRM. Rupture of the fetal membranes before completion of week 37 of pregnancy. SEE: *prematurity*.

**premature ventricular contraction** ABBR: PVC. The contraction of the cardiac ventricle prior to the normal time, caused by an electrical impulse to the ventricle arising from a site other than the sinoatrial node. The PVC may be a single event or occur several times in a minute or in pairs or strings. Three or more PVCs in a row constitute ventricular tachycardia.

**prematurity** (prē-mā-chūr-ī-tē) The state of an infant born any time prior to completion of the 37th week of gestation. The normal gestation period for the human being is 40 weeks. Because of the difficulty of obtaining accurate and objective data on the exact length of gestation, a birth weight of 2500 g (5.5 lb) or less has been accepted internationally as the clinical criterion of prematurity regardless of the period of gestation. Other measures suggestive of prematurity are crown-heel length (47 cm or less), crown-rump length (32 cm or less), occipitofrontal circumference (33 cm or less), occipitofrontal diameter (11.5 cm or less), and ratio of the thorax circumference to the head circumference (less than 93%).

The use of a single-criterion measure (birth weight) imposes limitations in ac-

curately identifying those infants born before adequate development of body organs and systems has been achieved. It can easily include mature infants who are of low birth weight for reasons other than a shortened gestation period. The Expert Committee on Prematurity of the World Health Organization (1961) recommended that the concept of prematurity in the international definition be replaced by that of low birth weight. The term *low birth weight* more accurately describes infants weighing less than 2500 g at birth than does the term *prematurity*. The latter term should be reserved for those neonates within the low birth weight group with evidence of incomplete development.

In the United States approx. 7.1% white liveborn and 13.4% nonwhite liveborn infants weigh 2500 g or less. Chances of survival depend on the degree of maturity achieved, general medical condition, and quality of care received.

Prematurity is the leading cause of death in the neonatal period. Mortality among infants weighing less than 2500 g at birth is 17 times greater than among infants with birth weight above 2500 g. Chief causes of mortality are abnormal pulmonary ventilation, infection, intracranial hemorrhage, abnormal blood conditions, and congenital anomalies. Antenatal steroids assist fetal lung development.

**ETIOLOGY:** The incidence of neonates of low birth weight is more frequent among the female sex, nonwhite races, plural births, and the first- and fifth- (and over) born infants. Delivery of infants of low birth weight is reported to be more frequent among women with one or more of the following characteristics: having their children at either a very young age or between ages 45 and 49; being unmarried; having children closely spaced (i.e., less than 2 to 4 years between births); and living in a large urban area.

Another factor associated with low birth weight is the socioeconomic status of the family as measured by the mother's educational attainment. The proportion of infants of low birth weight born to mothers with 16 years or more of education was half of that of infants born to mothers with less than 9 years of education. Low birth weight is also associated with generally elevated risk of infant mortality, congenital malformations, mental retardation, and various other physical and neurological impairments.

**COMPLICATIONS:** Frequently, premature infants are handicapped by a number of anatomical and physiological limitations. These limitations vary in direct proportion to the degree of im-

maturity present. Limitations include weakness of the sucking and swallowing reflexes, small capacity of stomach, impairment of renal function, incomplete development of capillaries of the lungs, immature alveoli of the lungs, weakness of the cough and gag reflexes, weakness of the thoracic cage muscles and other muscles used in respiration, inadequate regulation of body temperature, incomplete or poorly developed enzyme systems, hepatic immaturity, and deficient placental transfer and antenatal storage of minerals, vitamins, and immune compounds. Severely premature infants have high rates of neurological deficits later in life. SEE: *intrauterine growth retardation*; *premature rupture of membranes*.

**PATIENT CARE:** Ideally, the premature birth should take place in a regional intensive care center rather than a community health facility so that especially prepared staff are available to manage the birth and the premature infant, eliminating the need for infant transfer and maternal-child separation. A resuscitation team should be in attendance to take immediate charge of the neonate. A physical assessment correlated with the expected maturation for fetal age is performed. Health care providers perform a neurological evaluation, obtain an Apgar score, ensure proper environmental temperature, provide proper fluid and caloric intake, ensure parental bonding and support, assess laboratory reports, monitor intake and output, notify the pediatrician and nursery of the (impending) premature birth, weigh the infant daily at the same time without clothing and on the same scale, monitor oxygen concentration at frequent intervals, hold and cuddle the infant during feedings, cover the infant when removing from isolette, and provide adequate time for feeding.

*Care of low-birth-weight infants:* Care of low-birth-weight infants should be individualized and reflect the needs of the developing infant with regard to anatomical and physiological handicaps. Evaluation for degree of immaturity and identification of special problems after birth dictates care required by these infants. In general, care centers on prevention of infection, stabilization of body temperature, maintenance of respiration, and provision of adequate nutrition and hydration.

Aseptic technique is required. An incubator or heated bed provides a suitable environment for maintenance of body temperature. A high-humidity environment may be of value for infants with respiratory difficulties. Gentle nasal and pharyngeal suctioning aids in keeping airways clear. Use of oxygen should be restricted to the minimal

amounts required for survival of the infant. Because of the danger of retrolental fibroplasia, the oxygen concentration should not exceed 30%.

Depending on the infant's sucking and swallowing abilities, gavage feeding may be necessary. Some infants may not be given anything by mouth for as long as 72 hr after birth. Caloric and fluid intakes are increased gradually until 100 to 120 cal/kg and 140 to 150 ml/kg, respectively, in 24 hr are reached. The time required to achieve these intake levels depends on the newborn's condition. The infant may require small, frequent feedings to cope with the small capacity of the stomach, to prevent vomiting and distention, and to meet the body's caloric and fluid requirements. Overfeeding should be avoided. During the early days of life, clyses are sometimes administered to maintain adequate hydration. Breast milk is the optimal nutritional choice.

The infant should not be allowed to become fatigued from excessive handling, prolonged feeding procedures, or too much crying. Body position should be changed every 2 to 4 hr. Gentle handling should be practiced. The newborn and infant should receive cuddling and pleasant vocal stimulation several times a day.

Because of the possibility of retinal damage, premature infants should not be exposed to bright light. Parents are kept informed of their infant's condition, and equipment, procedures, and treatments used are explained. They are encouraged to visit, stroke and touch, and then hold and feed the neonate as this becomes possible. Home health care may be required to assist the parents in caring for special needs when the neonate is ready for discharge.

**premaxilla** (prē'māk-sil'ă) [L. *prae*, before, in front of, + *maxilla*, jawbone] A separate bone, derived from the median nasal process embryologically, that fuses with the maxilla in humans; formerly called the incisive bone.

**premedication** (prē'mēd-ī-kā'shūn) [" + *medicari*, to heal] 1. Administration of drugs before treatment to enhance the therapeutic effect and safety of a given procedure. 2. Preanesthetic.

**premenarchal** (prē'mē-nār'kāl) [" + Gr. *men*, mouth, + *arche*, beginning] The time prior to the first menstrual period (i.e., prior to menarche).

**premenstrual** (prē'mēn'stroo-āl) [" + *menstruare*, to discharge the menses] Before menstruation.

**premenstrual dysphoric disorder** ABBR: PMDD. A disorder characterized by symptoms such as markedly depressed mood, anxiety, affective lability, and decreased interest in activities. It is the current term, according to *DSM-IV*, for

what was previously known as premenstrual tension syndrome, now PMDD. Although the term premenstrual syndrome also is commonly used, it is not the technical term for this disorder, but may be used to identify a milder and less debilitating form of the disorder. SYN: *premenstrual tension syndrome*.

**SYMPTOMS:** In patients with this disease, the symptoms occur regularly during the last week of the luteal phase in most menstrual cycles during the year preceding diagnosis. These symptoms begin to remit within a few days of the onset of the menses (the follicular phase) and are always absent the week following menses.

**DIAGNOSIS:** Five or more of the following symptoms must be present most of the time during the last week of the luteal phase, with at least one of the symptoms being one of the first four: feeling sad, hopeless, or self-deprecating; feeling tense, anxious, or "on edge"; marked lability of mood interspersed with frequent tearfulness; persistent irritability, anger, and increased interpersonal conflicts; decreased interest in usual activities, which may be associated with withdrawal from social relationships; difficulty concentrating; feeling fatigued, lethargic, or lacking in energy; marked changes in appetite, which may be associated with binge eating or craving certain foods; hypersomnia or insomnia; a subjective feeling of being overwhelmed or out of control; and physical symptoms such as breast tenderness or swelling, headaches, or sensation of bloating or weight gain, with tightness of fit of clothing, shoes, or rings. There may also be joint or muscle pain. The symptoms may be accompanied by suicidal thoughts.

The pattern of symptoms must have occurred most months for the previous 12 months. The symptoms disappear completely shortly after the onset of menstruation. In atypical cases, some women also have symptoms for a few days around ovulation; and a few women with short cycles might, therefore, be symptom-free for only 1 week per cycle. Women commonly report that their symptoms worsen with age until relieved by the onset of menopause.

**TREATMENT:** The selective serotonin reuptake inhibitors, such as fluoxetine and sertraline, but not tricyclic antidepressants, help improve symptoms of the disorder for many patients. Other pharmacologic treatments include calcium and magnesium supplements, vitamins, prostaglandin inhibitors, NSAIDs, and diuretics. Some people believe that symptoms are diminished by limiting one's intake of salt, refined sugars, caffeine (e.g., in chocolate, colas, and coffee), nicotine, alcohol, red meat,

and animal fat, and increasing consumption of leafy green vegetables, whole-grain cereals, vitamins B<sub>6</sub> and E, and complex carbohydrates. The hypothesis that dietary changes influence PMDD, however, has not been rigorously tested.

**PATIENT CARE:** Support and reassurance are offered, and the woman is informed about self-help groups (as available) and encouraged to develop her own resources to help her cope with the syndrome.

**premenstrual syndrome** ABBR: PMS. SEE: *premenstrual dysphoric disorder*.

**premenstrual tension syndrome** ABBR: PTS. Premenstrual dysphoric disorder. SEE: *Nursing Diagnoses Appendix*.

**premenstruum** (prē-mēn'stroo-ūm) [" + *menstruus*, menstrual fluid] The period of time prior to menstruation.

**premise** (prēm'īs) A proposition or starting point that is accepted as true or that is agreed to be true. SEE: *assumption*.

**premium** (prē'mē-um) A payment made periodically to a health care insurer in exchange for benefits coverage (indemnity against future expenses).

**premium support** (prē'mē-ūm sū-pōrt') A form of health insurance coverage in which a third party, such as an employer or the federal government, provides a fixed contribution to an employee's health insurance costs. The employee chooses the extent of coverage (e.g., basic, catastrophic, dental, extensive) and how much he or she is willing to pay to be insured.

**premixed** (prē'mīkst') [" + "] Prepared in standard concentrations or percentages before use. Insulins, e.g., may be pure (composed of either short or long-acting varieties but not both), or they may be combined to take advantage of the differing times of onset and peak effect of two different agents. Premixed insulins are usually labeled with two numbers, separated by a slash (/). An insulin mixture that is half long-acting and half rapid-acting is labeled 50/50; one that is 70% long-acting and 30% rapid-acting is labeled 70/30.

**premolar** (prē-mō'lēr) [" + *moles*, a mass] One of the permanent teeth that erupt to replace the deciduous molars. They are often called bicuspid teeth, for the maxillary premolars have two cusps, whereas the mandibular premolars may have from one to three cusps. They are located between the canine and first molar of each quadrant of the dental arches. SEE: *dentition*.

**premonition** (prēm'ē-, prē-mē-nīsh'ūn) [*L. praemonere*, to warn beforehand] A feeling of an impending event.

**premonitory** (prē-mōn'ī-tō-rē) [LL. *praemonitorius*] Giving a warning, as an early symptom.

**premonocyte** (prē-mōn'ō-sīt) [*L. prae*,

before, in front of, + Gr. *monos*, alone, + *kytos*, cell] An embryonic cell transitional in development prior to a monocyte.

**premorbid** (prē-mor'bid) [" + *morbidus*, sick] Prior to the development of disease.

**premyeloblast** (prē-mī'ē-lō-blāst) [" + Gr. *myelos*, marrow, + *blastos*, germ] A precursor of the mature myeloblast.

**premyelocyte** (prē-mī'ēl-ō-sīt) [" + " + *kytos*, cell] The cell that is the immediate precursor of a myelocyte.

**pre narcosis** (prē-nār-kō'sis) [" + Gr. *narkosis*, a numbing] Preanesthetic.

**prenatal** (prē-nā'tl) [" + *natalis*, birth] Before birth.

**prenatal care** The regular monitoring and management of the health status of the pregnant woman and her fetus during the period of gestation. Comprehensive care is based on a thorough review of the woman's medical, surgical, obstetrical and gynecological, nutritional, and social history, and that of the family for indications of genetic or other risk factors. Laboratory analyses provide important data describing the woman's current health status and indications for treatment and anticipatory guidance. Periodic visits are scheduled to evaluate changes in blood pressure, weight, fundal height, fetal heart rate, and fetal activity, and to assess for any signs of emerging health problems. To enable the patient's active participation in care and to facilitate early diagnosis and prompt treatment of emerging problems, emphasis is placed on anticipatory guidance and patient teaching. The health care professional describes and discusses nutrition and diet (including the importance of folate supplementation), self-management of common minor complaints, and signs to report promptly to the primary caregiver; helps patients gain access to resources available for preparation for childbirth, breastfeeding, newborn care, and parenting; and provides support and counseling. SEE: *pregnancy*; *prenatal diagnosis*; *table*.

**prenatal surgery** Intrauterine surgical procedures. These techniques have been used to repair heart defects and anatomical defects of other organs. SEE: *prenatal diagnosis*.

**preobese** (prē-ō-bēs') The term used by the World Health Organization for "overweight."

**preoperative care** (prē-ōp'er-ā-tiv) [" + *operatus*, work] Care preceding an operation, including the medical evaluation of the risks of surgery, and the psychological adjustment of the patient.

**PATIENT CARE:** A history and physical examination are conducted, baseline vital signs assessed, ECG, chest X-ray, hematologic studies, blood chem-

## Common Tests Performed Prenatally\*

Name of test	Type of test	What it reveals
Alpha fetoprotein	Blood	Increased risk for fetus of Down syndrome or neural tube defects, such as meningomyelocele
Amniocentesis	Invasive	Genetic diseases such as Down syndrome
Beta strep culture	Vaginal swab	Colonization of the vagina with group B beta streptococcus, a source of neonatal sepsis
Blood type	Blood	ABO blood type; Rh antigen
Chlamydia	Cervical swab	Infection with <i>Chlamydia trachomatis</i>
Glucose tolerance testing	Blood	Gestational diabetes mellitus
GC/Gonorrhea	Cervical swab	Infection with <i>Neisseria gonorrhoeae</i>
Hemoglobin	Blood	Anemia (maternal)
Hepatitis B antigen and/or antibody	Blood	Presence of chronic or active hepatitis
Human immunodeficiency virus antibody test	Blood	HIV/AIDS infection
Pap test	Cervical sample	Cancer of the uterine cervix
Rubella antigen	Blood	Immunity to German measles
Triple or quad marker screen	Blood	Birth defects such as Down syndrome or spina bifida
Ultrasonography	Radiologic, non-invasive	Age of the fetus; multiple pregnancies; developmental abnormalities; quantity of amniotic fluid
Urinalysis	Urine	Urinary tract infections; chronic kidney disease
Varicella-Zoster antibody	Blood	Immunity to chickenpox
VDRL, RPR, FTA-ABS, others	Blood	Infection with syphilis

\*Not all these tests are performed on all expectant mothers.

istries, and urinalysis obtained. A member of the anesthesia team meets with the patient and planned anesthesia is discussed. Drug and other allergies are ascertained and documented, along with any individualized patient limitations. Time to discuss the meaning of the procedure with the patient and to allow the patient to express concerns and fears is essential. The patient should be instructed to cough, breathe deeply (splinting incision as necessary), turn, and exercise the extremities at frequent intervals. Incentive spirometry, antiembolic and/or pneumatic leg dressings, and any expected mobility devices are demonstrated and use practiced as necessary. Expected post-operative treatment procedures also are described, and pain management is explained. The operative site is prepared as prescribed; the gastrointestinal tract is prepared as indicated (restrict food and fluids as ordered). Rest and sleep are promoted; laboratory results are reviewed; and preoperative medications are administered as prescribed after ensuring that an informed consent has been signed and the patient

has voided. The patient should perform oral hygiene; remove dentures, if present, as well as jewelry and make-up; and dress in a hospital gown. Proper identification on the patient identification bracelet is verified. If the patient is menstruating, the type of menstrual protection used should be noted on the chart. Usually only pads are used while the patient is in surgery and during hospitalization. The patient's tampons or pads should be changed, at least every 4 to 6 hr in the case of tampons (if agency policy permits their use).

The patient is provided guidance concerning the timing of prescribed activities, including when to return to work and athletic endeavors, when sexual activity may be resumed, and whether there will be postoperative restriction on driving automobiles. If same-day surgery with discharge to home is planned, the patient is made aware that transportation must be provided by a reliable relative or friend, and that he/she should not be alone in the home for the first 24 hours.

**preoptic area** (prē-ōp-tīk) The anterior portion of the hypothalamus. It is above



the optic chiasma and on the sides of the third ventricle.

**preosseous** (prē'ōs'ē-ūs) [ " + " ] Relating to the formation of partly formed bone made of developing cartilage or connective tissue.

**preoxygenation** (prē-ōks'ī-jī-nā'shūn)

1. The administration of high-flow oxygen to a patient before endotracheal intubation or suctioning of the upper airway. 2. Breathing of 100% oxygen via a face mask by the fully conscious patient before induction of anesthesia. Duration is 2 to 7 min. In that time the nitrogen is washed out of the lungs and is replaced by oxygen.

This same procedure is used for a longer period of time in persons before exposure to very low atmospheric pressure (e.g., aviators before flying to high altitudes) or to very high atmospheric pressure (e.g., divers descending to a great depth in water). In both cases the goal is to rid the body of nitrogen to prevent bends.

**prep** (prēp) [Abbreviation of *prepare* or *preparation*]

1. To prepare (a patient) for a medical or surgical procedure. 2. Preparation of a patient for a medical or surgical procedure. SEE: *preoperative care*.

**bowel p.** The administration of a clear liquid diet with laxatives, enemas, or both, in anticipation of endoscopy of the lower gastrointestinal tract to provide an optimal view of the bowel wall.

**prepaid care** Managed care in which a patient or group contracts for all its health care services in advance, instead of paying for each service when it is delivered.

**prepalatal** (prē-pāl'ā-tāl) [L. *prae*, before, in front of, + *palatum*, plate] Located in front of the teeth.

**preparalytic** (prē'pār-ā-līt'ik) [ " + Gr. *para*, at the side, + *lyein*, to loosen] Before the appearance of paralysis.

**preparation** (prēp-ā-rā'shūn) [L. *prae-*

*paratio*] 1. The making ready, esp. of a medicine for use. 2. A specimen set up for demonstration in anatomy, pathology, or histology. 3. A medicine made ready for use.

**cavity p.** The removal of dental caries and the excavation of surrounding dental structure to permit reconstruction of the tooth with dental restorative materials.

**chlorine p.** A disinfectant solution such as Dakin's solution or Javelle water, made from hypochlorites in water.

**corrosion p.** In anatomical and pathology investigations, hollow organs and structures such as vessels are filled with a liquid substance that hardens. Then the surrounding tissues are dissolved by use of suitable chemicals. This leaves a cast of the structures.

**heart-lung p.** In animal studies and

in open-heart surgery, the use of devices that take over the function of the heart and lungs while those organs are being treated or possibly replaced.

**preparative regimen** High doses of cancer chemotherapy and/or radiation therapy, used prior to bone marrow or cord blood transplantation to eliminate the recipient's blood-forming cells. Very high doses of drugs and/or radiation are used to eliminate as many diseased cells from the recipient's marrow as possible. As a result, the recipient's normal blood cells are also destroyed. Preparative regimens temporarily make patients immunodeficient, anemic, and platelet-deficient. Immunocompetence and the ability to form red cells and platelets are restored to patients when the donated stem cells they receive engraft, i.e., begin to repopulate and reproduce in the marrow. Also known as *conditioning regimen*.

**preparedness** (prē-pār'ēd-nēs) The capability, planning, and training needed to respond to a crisis (e.g., a multiple casualty incident, chemical spill, or terrorist attack).

**prepatellar** (prē'pā-tēl'ār) [L. *prae*, before, in front of, + *patella*, pan] In front of the patella.

**prepatellar bursitis** An inflammation of the bursa anterior to the patella, with accumulation of fluid. It may be seen in those who have to kneel frequently or continually while working. SYN: *housemaid's knee*; *carpetlayer's knee*. SEE: *illus.*



PREPATELLAR BURSTITIS

**prepatent** (prē-pā'tētnt) Before becoming evident or manifest.

**prepatent period** The period between the time of introduction of parasitic organisms into the body and their appearance in the blood or tissues.

**preperception** (prē'pēr-sēp'shūn) [ " + *perceptio*, to perceive] The anticipation of a perception. This intensifies the response to the perception.

**preplacental** (prē'plā-sēn'tāl) [ " + *placenta*, a flat cake] Occurring prior to formation of the placenta.

**prepotent** (prē-pō'tētnt) [ " + *potentia*,

power] Pert. to the greater power of one parent to transmit inherited characteristics to the offspring.

**preprandial** (prē-prān'dē-āl) [*"* + *prandium*, breakfast] Before a meal.

**prepuberal, prepubertal** (prē-pū'bēr-āl, -tāl) [*"* + *pubertas*, puberty] Before puberty.

**prepubescent** (prē'pū-bēs'ēnt) [*"* + *pubescens*, becoming hairy] Pert. to the period just before puberty.

**prepuce** (prē'pūs) [L. *praeputium*, prepuce] Foreskin.

**p. of the clitoris** A fold of the labia minora that covers the clitoris. SEE: *clitoris*.

**preputial** (prē-pū'shāl) Concerning the prepuce.

**preputial gland** SEE: under *gland*.

**preputiotomy** (prē-pū'shē-ōt'ō-mē) [*"* + Gr. *tome*, incision] Incision of the prepuce of the penis to relieve phimosis.

**preretinal** (prē-rēt'i-nāl) [*"* + *retina*, retina] In front of the retina of the eye.

**presacral** (prē-sā'krāl) [*"* + *sacrum*, sacred] In front of the sacrum.

**presby-** Combining form meaning *old*.

**presbycusis, presbycousia** (prēz'bē-ākū'sē-ā) [Gr. *presbys*, old, + *akousis*, hearing] Presbycusis.

**presbyiatrics, presbyatry** (prēz-bē-āt'rīks, prēz'bē-āt-rē) [*"* + *iatrikos*, healing] An infrequently used synonym for geriatrics.

**presbycardia** (prēz-bī-kār'dē-ā) [*"* + *kardia*, heart] Decreased functional capacity of the heart, as a result of age-related muscular hypertrophy, loss of myocytes, and decreased cardiac elasticity and compliance.

**presbycusis, presbykousis** (prēz-bī-kū'sīs) [*"* + *akousis*, hearing] Progressive loss of hearing with aging, typically resulting from sensorineural hearing loss. It is the third most common disease of the elderly, after hypertension and arthritis, and can cause significant social isolation. SYN: *presbycusis*.

**presbyope** (prēs'bē-ōp) [*"* + *ops*, eye] A person who is presbyopic.

**presbyopia** (prēz-bē-ō'pē-ā) [*"* + *ops*, eye] The permanent loss of accommodation of the crystalline lens of the eye that occurs when people are in their 40s, marked by the inability to maintain focus on objects held near to the eye (i.e., at reading distance). SEE: *farsightedness*.

**presbyiatrics** (prēz'bī-tē-āt'rīks) [*"* + *iatrikos*, healing] Geriatrics.

**prescribe** (prē-skrīb') [L. *praescriptio*, prescription] To indicate the medicine to be administered. This can be done orally but is usually done by writing a prescription or an order in the patient's hospital chart.

**prescribing cascade** The administration of a new drug to a patient because of

side effects produced by another prescription. Later prescriptions increase the risk of further side effects, drug interactions, and patient harm. A prescribing cascade usually results from the failure of the health care prescriber to recognize a patient's presenting illness as evidence of an adverse drug reaction. In many patients, but esp. in those with diminished kidney or liver function, side effects of drugs are a common cause of drug toxicity and hospitalization.

**prescribing error** (prē-skrī-bēng) An error in the choice or administration of drugs for patients. Included are incorrect dose or medicine, duplicate therapy, incorrect route of administration, or wrong patient. In one extensive study of prescriptions written by physicians in a tertiary-care teaching hospital, 0.3% were erroneous and more than half of these were rated as having the potential for adverse consequences. Monitoring of medications and patients is thought to be helpful in limiting these errors.

**prescription** (prē-skrīp'shūn) [L. *praescriptio*] A written direction or order for dispensing and administering drugs. It is signed by a physician, dentist, or other practitioner licensed by law to prescribe such a drug. Historically, a prescription consists of four main parts:

1. *Superscription*, represented by the symbol  $\mathbb{R}$ , which signifies *Recipe*, meaning "take"

2. *Inscription*, containing the ingredients

3. *Subscription*, directions to the dispenser how to prepare the drugs

4. *Signature*, directions to the patient how to take the dosage; the physician's signature, address, and telephone number; the date; and whether the prescription may be refilled. When applicable, the physician's Drug Enforcement Administration number must be included. Many states also require that the prescriber indicate on the prescription whether or not a generic drug may be substituted for the trade name equivalent.

In the U.S. each year about 3 billion prescriptions are written in health care offices, and still more are written for inpatients.



Unused prescription pads should be kept in a secure place in order to prevent their being misused or stolen. Each prescription should be numbered consecutively. One should never sign a prescription blank in advance. The prescriber should use ink to prevent changes being made and not use prescription pads for writing notes or memos.

**p. drug** A drug available to the public

only upon prescription written by a physician, dentist, or other practitioner licensed to do so.

**exercise p.** An exercise schedule usually intended to increase the physical fitness of a previously sedentary individual who has recently had a serious illness such as myocardial infarction, or who is physically fit and wants to know the amount, frequency, and kind of exercise necessary to maintain fitness. The prescription is individualized, taking into account the person's age, the availability of facilities and adequate supervision, and health, particularly if the person has had chronic diseases of the heart or lungs. SEE: *physical activity and exercise*.

**shotgun p.** A prescription containing many drugs, given with the hope that one of them may prove effective; it is not a recommended approach to the treatment of disease.

**prescriptive authority** (prē-skrīp-tīv) The limited authority to prescribe certain medications according to established protocol. In the U.S., prescriptive authority has been granted to advanced practice nurses, optometrists, osteopaths, physicians, podiatrists, and veterinarians among other health care professionals.

**presenile** (prē-sē'nīl) [L. *prae*, before, in front of, + *senilis*, old] Occurring before the expected onset of age-related changes, that is, in middle age. The word is usually used to describe dementia that occurs relatively early in life.

**presenium** (prē-sē'nē-ūm) [" + *senium*, old age] The time of life that precedes old age, typically the years before age 65.

**present** (prē-zēnt') [L. *praesent*, to be present before others] The presence of the patient for examination.

**presentation** (prē'zēn-tā'shūn) [L. *praesentatio*] **1.** In obstetrics, the position of the fetus presenting itself to the examining finger in the vagina or rectum (e.g., longitudinal or normal and transverse or pathologic presentation). **2.** The relationship of the long axis of fetus to that of the mother; also called *lie*. SEE: **illus.**; *position* for table. **3.** The fetal body part that first enters the maternal pelvis. SEE: *position* for table.

**breech p.** Fetal position in which the buttocks comes first. Breech presentation is of three types: complete breech, when the thighs of the fetus are flexed upon the abdomen and the legs flexed upon the thighs; frank breech, when the legs of the fetus are extended over the anterior surface of the body; and footling, when a foot or feet present. Footling can be single, double, or, if the leg remains flexed, knee presentation. SYN: *pelvic presentation*.

**brow p.** Fetal position in which the

brow or face of the infant comes first during labor, making vaginal delivery almost impossible. Cesarean section may be needed if the presentation cannot be altered.

**cephalic p.** Presentation of the head of the fetus in any position.

**compound p.** Fetal position in which a prolapsed limb is alongside the main presenting part.

**face p.** Fetal position in which the head of the fetus is sharply extended so that the face comes first.

**footling p.** Fetal position in which the feet come first. SEE: *breech p.*

**funic p.** Appearance of the umbilical cord during labor.

**longitudinal p.** Presentation in which the long axis of the fetus is parallel to the long axis of the mother.

**oblique p.** Presentation in which the long axis of the fetus is oblique to that of the mother.

**pelvic p.** Breech presentation.

**placental p.** Placenta previa.

**shoulder p.** Presentation in which the shoulder of the fetus is the presenting part.

**transverse p.** Presentation with the fetus lying crosswise.

**vertex p.** Presentation of the upper and back part of the fetal head.

**presenteeism** (prē'zēn-tē'īzm) [By analogy with *absenteeism*] Presence at work without contributing to the productivity of the institution. The term is used to describe such behavior as working while ill or distracted from one's primary tasks, and thus in a less than fully functional mode; or logging excessive hours at work in an effort to impress co-workers or managers.

**preservative** (prē-zēr'vā-tīv) [L. *prae*, before, in front of, + *servare*, to keep] A substance added to medicines or foods to prevent them from spoiling. It may act by interfering with certain chemical reactions or with the growth of molds, fungi, bacteria, or parasites. Some common preservatives are sugar, salt, vinegar, ethyl alcohol, sulfur dioxide, and benzoic acid.

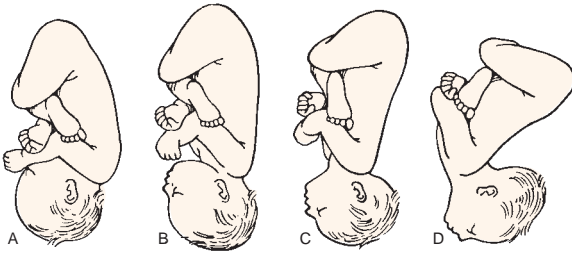
**presphygmīc** (prē-sfīg'mīk) [" + Gr. *sphygmōs*, pulse] Pert. to the period preceding the pulse wave.

**prespinal** (prē-spī'nāl) [" + *spina*, thorn] In front of the spine, or ventral to it.

**prespondylolisthesis** (prē-spōn'dīl-ō-līsthe'sis) [" + Gr. *spondylos*, vertebra, + *olisthanein*, to slip] A congenital defect of both pedicles of the fifth lumbar vertebra without displacement, predisposing the individual to spondylolisthesis.

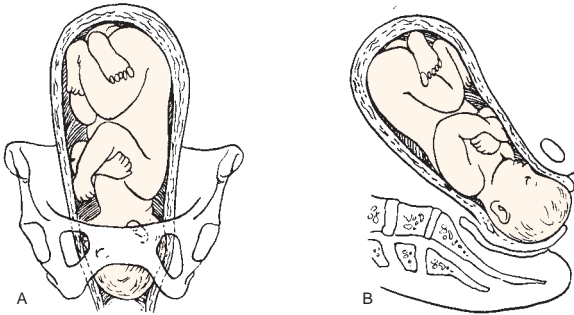
**pressor** (prēs'or) [O.Fr. *presser*, to press] **1.** Stimulating, increasing the activity of a function, esp. of vasomotor activity, as a nerve. **2.** Inducing an elevation in

ATTITUDES OF THE FETUS



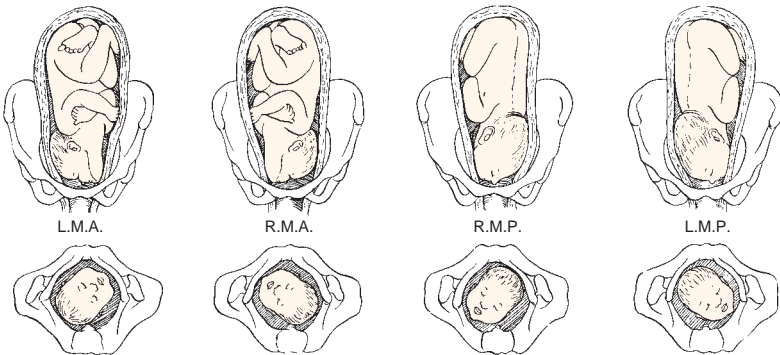
A—VERTEX PRESENTATION; B—SINCIPUT PRESENTATION; C—BROW PRESENTATION; D—FACE PRESENTATION\*

BROW PRESENTATION



A—ANTERIOR VIEW; B—SAGITTAL VIEW\*

FACE PRESENTATIONS



LEFT MENTOANTERIOR (L.M.A.); RIGHT MENTOANTERIOR (R.M.A.); RIGHT MENTOPOSTERIOR (R.M.P.); LEFT MENTOPOSTERIOR (L.M.P.)\*

\*Reproduced with permission from Bonica, J.: Principles and Practice of Obstetric Analgesia and Anesthesia. F.A. Davis, Philadelphia, 1972.

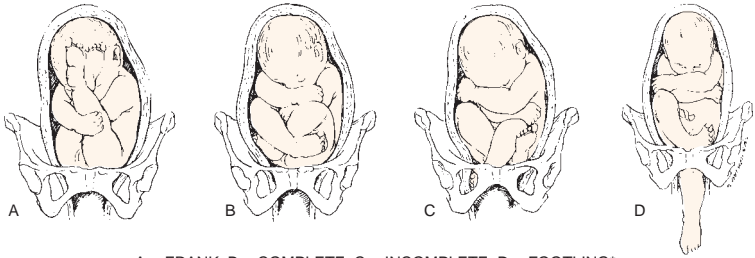
PRESENTATIONS OF FETUS

blood pressure. 3. One of several drugs, such as dopamine, epinephrine, and norepinephrine, that are used to increase the blood pressure of patients in shock.

**pressoreceptive** (prēs"ō-rē-sĕp'tiv) Sensitive to pressure stimuli. SYN: *pressosensitive*.

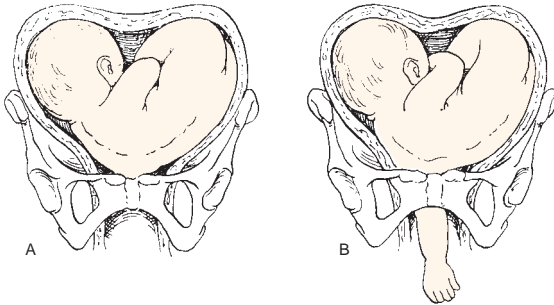
**pressoreceptor** (prēs"ō-rē-sĕp'tor) Baroreceptor.

TYPES OF BREECH PRESENTATIONS



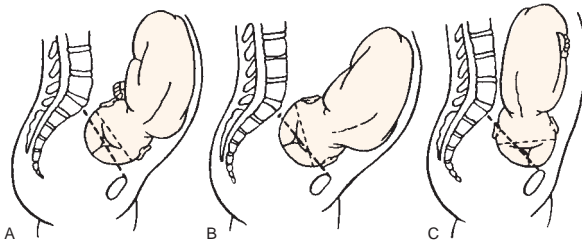
A—FRANK; B—COMPLETE; C—INCOMPLETE; D—FOOTLING\*

TRANSVERSE PRESENTATION



A—RIGHT SCAPULOANTERIOR;  
B—PROLAPSE OF AN ARM IN TRANSVERSE LIE\*

SYNCLITISM (A) AND ASYNCLITISM (B AND C)



A. Sagittal suture of the fetus lies exactly midway between the symphysis and the sacral promontory. B. Sagittal suture is close to the sacrum, and the anterior parietal bone is felt by the examining finger (anterior asynclitism of Nägele's obliquity). C. Posterior parietal presentation of posterior asynclitism (Litzmann's obliquity).\*

\*Reproduced with permission from Bonica, J.: *Principles and Practice of Obstetric Analgesia and Anesthesia*. F.A. Davis, Philadelphia, 1972.

PRESENTATIONS OF FETUS

(CONTINUED)

**pressosensitive** (prēs"ō-sēn'sī-tīv) Presoreceptive.

**pressure** (prēsh'ūr) [L. *pressura*] 1. A compression. 2. Stress or force exerted on a body, as by tension, weight, or pull-

ing. 3. In psychology, the quality of sensation aroused by moderate compression of the skin. 4. In physics, the quotient obtained by dividing a force by the area of the surface on which it acts.



**alveolar p.** Air pressure in the alveoli and bronchial tree. It fluctuates below and above atmospheric pressure during breathing; this causes air to enter or leave the lungs. SYN: *intrapulmonic pressure*.

**arterial p.** The pressure of the blood in the arteries. For a normal young person at physical and mental rest and in sitting position, systolic blood pressure averages about 120 mm Hg; diastolic pressure about 80 mm Hg. A wide range of normal variation is due to constitutional, physical, and psychic factors. For women, the figures are slightly lower. For older people, they are higher. Normally there is little difference in the blood pressure recorded in the two arms. SEE: *blood pressure*.

**atmospheric p.** The pressure of the weight of the atmosphere; at sea level it averages about 760 mm Hg.

**bilevel positive airway p.** ABBR: BiPAP. A type of continuous positive airway pressure in which both inspiratory and expiratory pressure are set.

**blood p.** SEE: *blood pressure*.

**capillary p.** The blood pressure in the capillaries.

**central venous p.** ABBR: CVP. The pressure within the superior vena cava. It reflects the pressure under which the blood is returned to the right atrium. The normal range is between 5 and 10 cm H<sub>2</sub>O. A high CVP indicates circulatory overload (as in congestive heart failure), whereas a low CVP indicates reduced blood volume (as in hemorrhage or fluid loss). CVP can be estimated by examining the cervical veins or the dorsal veins of the hand if the neck and hand are at the level of the heart. Those veins are well filled if CVP is normal or high, and tend to collapse if it is low.

**cerebrospinal p.** The pressure of the cerebrospinal fluid. This varies with body position but is normally about 100 to 180 mm H<sub>2</sub>O when the spinal canal is initially entered during lumbar puncture with the patient lying on his or her side.

**continuous positive airway p.** ABBR: CPAP. A method of ventilatory support applied to the spontaneously breathing patient in which airway pressure is maintained above atmospheric pressure throughout the respiratory cycle. CPAP can be applied by way of a nasal mask, a face mask, or an endotracheal tube. It can be used to treat congestive heart failure, acute pulmonary edema, obstructive sleep apnea syndrome, and other conditions. A potential adverse effect of CPAP is barotrauma to the lungs.

**cricoid p.** The application of manual pressure onto the cricoid cartilage during intubation and mechanical ventila-

tion. This technique helps to occlude the esophagus and prevent the entry of air into the gastrointestinal tract during ventilation. It also diminishes the chances for regurgitation from the stomach and aspiration of gastric contents.

**effective osmotic p.** That portion of the total osmotic pressure of a solution that determines the tendency of the solvent to pass through a membrane, usually one that is semipermeable. The tendency is for the solvent to pass from a solution containing a high concentration of the solute to the side of the membrane with the low concentration.

**end-diastolic p.** Blood pressure in a ventricle of the heart at the end of diastole.

**end-expiratory p.** The pressure in the lungs at the end of an exhaled breath.

**expiratory p.** The pressure in the lungs during the exhalation of a breath.

**filling p.** The average pressure in the atria or the ventricles at the end of diastole.

**hydrostatic p.** The pressure exerted by a fluid within a closed system.

**increased intracranial p.** An elevation of the pressure of the cerebrospinal fluid. In healthy people intracranial pressures range between 0 and 10 mm Hg. Pressures higher than 20 mm Hg increase the risk of compression or herniation of the brain or brainstem.

**inspiratory p.** The pressure in the lungs during the inhalation of a breath.

**intra-abdominal p.** Pressure within the abdominal cavity, such as that caused by descent of the diaphragm.

**intracranial p.** The pressure of the cerebrospinal fluid in the subarachnoid space between the skull and the brain. The pressure is normally the same as that found during lumbar puncture.

**intraocular p.** ABBR: IOP. Fluid pressure inside the eye; normally: 12 to 21 mm Hg.

**intrapleural p.** Pleural pressure.

**intrapulmonic p.** Alveolar pressure.

**intra-thoracic p.** Pleural pressure.

**intra-ventricular p.** The pressure within the ventricles of the heart during different phases of diastole and systole.

**jugular venous p.** ABBR: JVP. Back pressure exerted into the jugular veins from the right side of the heart.

**PATIENT CARE:** To estimate jugular venous pressure, have the patient lie on his or her back with the chest, neck, and head elevated 30 degrees above the horizontal. Measure the vertical height of the fullness seen as the jugular vein fills. In the healthy (and in the dehydrated) little or no blood is seen in the jugular veins, and they appear to be flat. In right-sided heart failure, the column of blood distends the jugular veins to a height of 5 to 6 cm or more.

**negative p.** Any pressure less than that of the atmosphere, or less than that pressure to which the initial pressure is being compared.

**oncotic p.** Osmotic pressure exerted by colloids in a solution.

**opening p.** ABBR: OP. The pressure of the cerebrospinal fluid that is detected just after a needle is placed into the spinal canal. It is normally 100 to 180 mm H<sub>2</sub>O.

**osmotic p.** SEE: *osmotic pressure*.

**partial p.** In a gas containing several different components, the pressure exerted by each component.

**peak inspiratory p.** The maximum pressure in the lungs during inhalation.

**plateau p.** The average pressure in the alveoli during the brief pause that follows an inhaled breath.

**pleural p.** The pressure in the pleural space, e.g., during mechanical ventilation or critical illness. It is normally lower than atmospheric pressure and therefore is sometimes called a negative pressure. It is rarely measured, except during mechanical ventilation, thoracentesis, or critical illness. SYN: *intrapleural pressure*; *intrathoracic pressure*.

**positive p.** Pressure greater than atmospheric or greater than the pressure to which the initial pressure is being compared.

**positive end-expiratory p.** ABBR: PEEP. In respiratory medicine, a method of holding alveoli open during expiration. This is done by gradually increasing the expiratory pressure during mechanical ventilation. When PEEP is used, it is important to monitor the hemodynamic status of the patient because PEEP reduces venous return to the heart and cardiac output. The goal is to achieve adequate arterial oxygenation, without using toxic levels of oxygen and without compromising cardiac output.



The patient must be carefully monitored to allow observation for undesired side effects such as pneumomediastinum, subcutaneous emphysema, and pneumothorax.

**positive end-expiratory p., auto** ABBR: auto-PEEP. A complication of mechanical ventilation in which the ventilator does not permit the patient sufficient time to exhale. This causes air to be trapped in the lungs, particularly the alveoli. If continued, auto-PEEP causes respiratory muscle fatigue and can cause rupture of the lung (i.e., pneumothorax). Auto-PEEP may be corrected by increasing exhalation time, decreasing the ventilator rate, or switching the ventilation mode so that the patient's spontaneous respiratory

pattern governs the inspiratory and expiratory times.

**posterior cricoid p.** Pressure applied by firmly placing the thumb and index finger on the lateral aspects of a patient's cricoid ring to occlude the esophagus. SYN: *Sellick's maneuver*.

**pulse p.** The difference between systolic and diastolic pressures. The systolic pressure is normally about 40 points greater than the diastolic. A pulse pressure over 50 points or under 30 points is considered abnormal.

**solution p.** Pressure that tends to dissolve a solid present in a solution.

**static p.** 1. The pressure in the circulatory system between pulses. 2. Pressures that are present in a system when any variables that may impact the system are minimized.

**systolic p.** Systolic blood pressure.

**transpulmonary p.** Alveolar pressure minus pleural pressure. When normal transpulmonary pressures are exceeded, air leaks may develop.

**venous p.** The pressure of the blood within the veins. It is highest near the periphery, diminishing progressively from capillaries to the heart. Near the heart the venous pressure may be below zero (negative pressure) owing to negative intrathoracic pressure.

**wedge p.** Pulmonary artery wedge pressure.

**pressure pain threshold** ABBR: PPT. The applied mass per area (kg/cm<sup>2</sup>) that will elicit a complaint of pain in subjects with painful conditions, e.g., fibromyalgia, temporomandibular joint dysfunction, or vulvodinia.

**pressure point** 1. A cutaneous area that can be used for exerting pressure to control bleeding. For control of hemorrhage, pressure above the bleeding point when an artery passes over a bone may be sufficient. SEE: *bleeding* for table. 2. An anatomical location used in shiatsu (acupressure) to relieve pain or improve the health of organs or tissues.

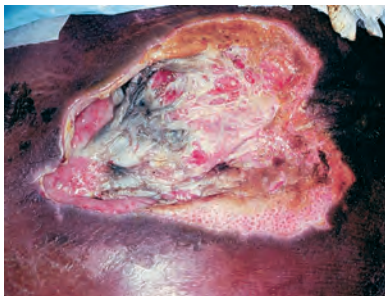
**equal p. p.** During forced exhalation, the point at an airway where the pressure inside the wall equals the intrapleural pressure. The pleural pressure is greater than the pressure inside the airway, tending to cause bronchiolar collapse.

**pressure sore** Damage to the skin or underlying structures as a result of tissue compression and inadequate perfusion. Pressure ulcers typically occur in patients who are bed or chair bound. Patients with sensory and mobility deficits (e.g., individuals with spinal cord injury, stroke, or coma); malnourished patients; patients with peripheral vascular disease; hospitalized elderly patients; and nursing home residents are all at risk. Some evidence also suggests that incontinence is a risk factor.

The most common sites of skin breakdown are over bony prominences (i.e., the sacrum and the trochanters, the heels, the lateral malleoli and also the shoulder blades, ischial tuberosities, occiput, ear lobes elbows, and iliac crests). The combination of pressure, shearing forces, friction, and moisture leads to tissue injury and occasionally necrosis. If not treated vigorously, the ulcer will progress from a simple red patch of skin to erosion into the subcutaneous tissues, eventually extending to muscle or bone. Deep ulcers often become infected with bacteria and develop gangrene. **SEE: illus.**

**TREATMENT AND PREVENTION:** The most important principle of therapy is to prevent the initial skin damage that promotes ulceration. In patients at risk, aggressive nursing practices, such as frequent turning of immobile patients and the application of skin protection to bony body parts, frequently are effective. Gel flotation pads, alternating pressure mattresses, convoluted foam mattresses and sheepskins or imitation sheepskins may be employed. Specialized air-fluid beds, waterbeds, or beds with polystyrene beads provide expensive but effective prophylaxis as well. If the patient develops an ulcer, topical treatments with occlusive hydrocolloid dressings, polyurethane films, absorbable gelatin sponges, collagen dressings, wound-filter dressings, water-vapor permeable dressings, and antibiotic ointments (used only when infection is confirmed by C&S testing) aid the healing of partial-thickness sores. Deeper lesions may need surgical débridement. Skin-damaging agents such as harsh alkaline soaps, alcohol-based products, tincture of benzoin, hexachlorophene, and petroleum gauze should be avoided. Consultation with a wound care specialist is advantageous.

**PATIENT CARE:** The skin is thoroughly cleansed, rinsed, and dried, and emollients are gently applied by minimizing the force and friction used, esp. over bony prominences. Patients who



**PRESSURE SORE**

are not able to position themselves are repositioned every 1–2 hours to prevent tissue hypoxia resulting from compression. A turning sheet or pad is used to turn patients with minimal skin friction. Care providers should avoid elevating the head of the bed higher than 30 degrees (except for short periods) to reduce shearing forces on the skin and subcutaneous tissues overlying the sacrum. Range-of-motion exercises are provided, early ambulation is encouraged, and nutritious high-protein meals are offered. Low-pressure mattresses and special beds are kept in proper working order. Doughnut-type cushions should not be used because they decrease blood flow to tissues resting in the center of the doughnut.

Ulcers are cleansed and débrided, and other therapeutic measures are instituted according to institutional protocol or prescription. Consultation with a nutritionist may be needed to assess and optimize the patient's nutritional status, and to provide high protein meals with added vitamin C to promote healing, protein and calorie-rich supplements, or enteral feedings. Weak or debilitated patients should be assisted to eat, with care taken to prevent swallowing difficulties. **SYN:** *decubitus ulcer*. **SEE:** table; *Nursing Diagnoses Appendix*.

**pressure of speech** Loud and emphatic speech that is increased in amount, accelerated, and usually difficult or impossible to interrupt. The speech is not in response to a stimulus and may continue even though no one is listening. It may be present in manic episodes, organic brain disease, depression with agitation, psychotic disorders, and sometimes as an acute reaction to stress.

**pressure-time product** **ABBR:** PTP. An estimate of respiratory muscle oxygen consumption during breathing. The PTP is sometimes represented mathematically as the integral of the esophageal and chest wall static recoil pressure curves. It estimates the work done when the diaphragm moves and estimates the oxygen consumption when respiratory muscles contract isometrically but fail to move the chest wall or the diaphragm.

**presuppurative** (prē-sūp'ū-rā'tiv) [*l'* + *sub*, under, + *puris*, pus] Relating to the period of inflammation before supuration.

**presymptomatic** (prē'simp-tō-māt'ik) The state of health prior to the clinical appearance of the signs and symptoms of a disease.

**presynaptic** (prē'sī-nāp'tik) [*l'* + Gr. *synapsis*, point of contact] Located before the nerve synapse.

**presyncope** (prē'sing'kā-pē) Near faint-

## The Norton Scale\*

Physical Condition	Mental State	Activity	Mobility	Incontinence
Good	4 Alert	4 Ambulatory	4 Full	4 Not
Fair	3 Apathetic	3 Walks with help	3 Slightly limited	3 Occasionally
Poor	2 Confused	2 Chairbound	2 Very limited	2 Usually urinary
Very bad	1 Stuporous	1 Bedfast	1 Immobile	1 Double

\* The patient is rated from 1 to 4 on the five risk factors listed. A score of  $\leq 14$  indicates risk for decubitus ulcers, or pressure sores.

SOURCE: Doreen Norton, Rhoda McLaren, and A.N. Exton-Smith. An investigation of geriatric nursing problems in the hospital. London: National Corporation for the Care of Old People (now the Centre for Policy on Ageing), 1962.

ing; the sensation that one is about to pass out.

**presystole** (prē-sīs'tō-lē) [L. *prae*, before, in front of, + Gr. *systole*, contraction] The period in the heart's cycle just before the systole. SYN: *perisystole*.

**presystolic** (prē-sīs-tōl'ik) Before the systole of the heart.

**pretarsal** (prē-tār'sāl) [" + Gr. *tarsos*, a broad flat surface] In front of the tarsus.

**preterm** (prē-těrm) In obstetrics, occurring prior to the 37th week of gestation. SEE: *premature*.

**preterm labor** SEE: *labor, preterm*.

**prethalamus** (prē-thāl'ū-mūs) [" + "] Subthalamus.

**pretibial** (prē-tib'ē-āl) [" + *tibia*, shinbone] In front of the tibia.

**pretibial fever** A form of leptospirosis caused by one of the several serotypes of the autumnalis serogroup. It is characterized by fever, a rash on the legs, prostration, splenomegaly, and respiratory disturbances. SYN: *Fort Bragg fever*.

**pretacheal** (prē' trā' kē-īl, prē-trā'kē-īl) [" + "] Anterior to the trachea.

**pretreatment** 1. A priming treatment given before the main course of therapy or the main chemical modification of a substance. 2. Before therapy.

**wastewater p.** In environmental practice, acting to attempt to eliminate, reduce, or alter polluted water after it enters the water treatment works.

**pretympenic** (prē'tim-pān'ik) [" + *tympanon*, drum] Located in front of the tympanic membrane.

**preurethritis** (prē'ū-rē-thrī'tis) [" + Gr. *ourethra*, urethra, + *itis*, inflammation] Inflammation around the urethral orifice of the vaginal vestibule.

**Prevacid** (prē'vā-sīd) SEE: *lansoprazole*.

**prevalence** (prēv'ā-lēns) [L. *praevalens*, prevail] The number of cases of a disease present in a specified population at a given time. SEE: *incidence*.

**prevention** (prē-vēn'shūn) The anticipation and forestallment of harm, disease, or injury. **preventive**, *adj.* SEE:

*preventive nursing; medicine, preventive.*

**primary p.** Limiting the spread of illness to previously unaffected patients or populations.

**p. paradox** A preventive measure that brings benefits to the community at large but affords little benefit to each participating individual.

**secondary p.** Limiting the impact or the recurrence of an illness in patients already afflicted by it.

**preventive** (prē-vēn'tiv) [ME. *preventen*, to anticipate] Hindering the occurrence of something, esp. disease. SEE: *prophylactic* (1).

**preventive medicine** SEE: under *medicine; prevention; preventive nursing*.

**preventive nursing** The branch of nursing concerned with preventing the occurrence of both mental and physical illness and disease. The nurse is an essential part of the health care team and has the opportunity to emphasize and indeed implement health care services to promote health and prevent disease. Nursing expertise and general professional competence can also be used in supporting community action at all levels for promoting public health measures. There are three levels of preventive nursing:

**Primary.** Nursing care aimed at general health promotion. This includes whatever intervention is required to provide a health-promoting environment at home, in the schools, in public places, and in the workplace by ensuring good nutrition, adequate clothing and shelter, rest and recreation, and health education (including sex education and, for the aging, realistic plans for retirement). Areas of emphasis are specific protective measures such as immunizations, environmental sanitation, accident prevention, and protection from occupational hazards. Changes in lifestyle through behavior therapy, though difficult, must be attempted with respect to those areas known to

represent major health risk factors (i.e., smoking, obesity, sedentary lifestyle, improper diet, alcohol and drug abuse, sexual promiscuity and not practicing safe sex, and falls). Major efforts must be made to prevent automobile accidents.

**Secondary.** Nursing care aimed at early recognition and treatment of disease. It includes general nursing interventions and teaching of early signs of disease conditions. Infectious diseases, glaucoma, obesity, and cancer fall into this category.

**Tertiary.** Nursing care for patients with incurable diseases, and patient instruction concerning how to manage those conditions and diseases. Parkinson's disease, multiple sclerosis, and cancer are conditions that lend themselves to tertiary prevention. The goal is to prevent further deterioration of physical and mental function, and to have the patient use whatever residual function is available for maximum enjoyment of and participation in life's activities. Rehabilitation is an essential part of tertiary prevention. SEE: *preventive medicine; public health.*

**prevertebral** (prē-vēr'tē-brāl) [L. *prae*, before, in front of, + *vertebra*, vertebra] In front of a vertebra.

**prevertiginous** (prē-vēr-tij'ī-nūs) [ʹ + *vertigo*, a turning round] Giddiness or dizziness rather than true vertigo.

**previa, praevia** (prē'vē-ā) [L.] Appearing before or in front of.

**previsible, pre-viable** (prē'vī ā-bīl) Pert. to a fetus not sufficiently mature to survive outside the uterus.

**previous abnormality of glucose intolerance** A past history of either: diabetes mellitus in pregnancy; impaired fasting glucose; an abnormal oral glucose tolerance test; or postprandial hyperglycemia.

**Prevnar** (prēv'nār) Pneumococcal seven-valent conjugate vaccine

**prevocational evaluation** (prē-vō-kā'shūn-āl) In rehabilitation, the assessment of those interests, aptitudes, abilities, and behavioral traits that are necessary for developing or performing specific job skills.

**Prevotella** (prē-vō-tēl' ā) A genus of gram-negative, rod-shaped, anaerobic bacteria that colonizes the oral cavity and genital organs. Members of the genus cause abscesses, blood-borne infections, genital infections, periodontitis, and wound infections.

**prezonular** (prē-zōn'ū-lār) Pert. to the posterior chamber of the eye, the space between the iris and ciliary zonule (suspensory ligament).

**prezygotic** (prē-zī-gōt'ik) [ʹ + *zygotos*, yoked] Happening prior to fertilization of the ovum.

**priapism** (prī'ā-pīzm) [LL. *priapismus*]

Abnormal, painful, and continued erection of the penis caused by disease, occurring usually without sexual desire. SEE: *erection; gonorrhea.*

**ETIOLOGY:** It may be due to lesions of the cord above the lumbar region; turgescence of the corpora cavernosa without erection may exist. It may be reflex from peripheral sensory irritants, from organic irritation of nerve tracts or nerve centers when libido may be lacking. It is sometimes seen in patients as a complication of sickle cell disease or acute leukemia. It can also be due to medicines injected into the penis to promote erection.

**stuttering p.** Painful, recurrent attacks of priapism that last 2 to 6 hr. The condition is seen in some patients with homozygous sickle cell disease.

**priapitis** (prī-ā-pī'tīs) [Gr. *priapos*, phallus, + *itis*, inflammation] Inflammation of the penis.

**prickly heat** (prīk'lē) Miliaria rubra; an inflamed papular or vesicular rash that results when the flow of sweat from sweat glands is blocked.

**prickly pear cactus** (prīk'lē pār kāk'tīs) The fruit of any of the cacti of the genus *Opuntia*, native to and a staple food in Mexico and Central America. SYN: *nop-al.*

**-pril** (prīl) A suffix used in pharmacology to designate an angiotensin-converting enzyme (ACE) inhibitor.

**Prilosec** (prī'lō-sēk) SEE: *omeprazole.*

**primal scene** (prī'māl) In psychiatry, the term for a child's first observation of sexual intercourse, real or imagined.

**primary** (prī'mā-rē) [L. *primarius*, principal] First in time or order. SEE: *principal.*

**primary antiphospholipid antibody syndrome** Antiphospholipid antibody syndrome that occurs in the absence of other rheumatologic disorders.

**primary care, primary health care** Integrated, accessible health care, provided where the patient first seeks medical assistance, by clinicians who are responsible for most of a patient's personal health care, including health maintenance, therapy during illnesses, and consultation with specialists.

**primary care provider** ABBR: PCP. The health care provider (i.e., the nurse practitioner, physician's assistant, or physician) to whom a patient first goes to address a problem with his or her health.

**primary cell** In physical therapy, a device consisting of a container, two solid conducting elements, and an electrolyte for the production of electric current by chemical energy.

**primary health care** Primary care.

**primary landing site** The first or most common tissue to which a particular tumor is likely to metastasize.



**primary nursing** The nursing practice system in which the entire nursing care of a patient is managed and coordinated by one nurse for a 24-hr period. The nurse is involved in, manages, and coordinates all aspects of the patient's care in that period. This includes scheduling of activities, tests, and procedures.

**primary progressive aphasia** ABBR: PPA. A form of dementia marked by the inability to recall the names of things, to read, or to express oneself with speech. The disorder gradually worsens and may ultimately produce other cognitive deficits. Early in the course of the disease, other brain functions pertaining to daily living are preserved, e.g., understanding speech, correct social behavior, and practicing hobbies. PPA is associated with nonspecific degeneration of neurons in the left hemisphere of the brain.

**primary sore** The initial sore or hard chancre of syphilis.

**primary teeth** The deciduous teeth, colloquially known as "baby teeth."

**primate** (prī'māt) [L. *primus*, first] A member of the order Primates.

**Primates** (prī-mā'tēz) An order of vertebrates belonging to the class Mammalia, subclass Theria, including the lemurs, tarsiers, monkeys, apes, and humans. This order is most highly developed with respect to the brain and nervous system.

**prime** (prīm) [L. *primus*, first] **1.** The period of greatest health and strength. **2.** To give an initial treatment in preparation for either a larger dose of the same medicine, or a different medicine.

**primer** (prīm'ēr) A sequence of nucleotides that starts the replication or transcription of a gene.

**primigravida** (prī-mī-grāv'ī-dā) [ " + *gravida*, pregnant] A woman during her first pregnancy.

**elderly p.** A woman who is 35 years of age or older and pregnant for the first time. In the past, women were informed that delaying childbearing until age 35 or more would greatly increase the chance of an adverse outcome of pregnancy. A well-controlled study of the outcome of first pregnancy in this age group indicates little, if any, increased risk of adverse fetal outcome. The women themselves had significantly more antepartum and intrapartum complications than younger women. The women studied were private patients who were predominantly white, college educated, married, nonsmoking, and had had excellent prenatal care.

**primipara** (prī-mīp'ā-rā) [ " + *parere*, to bring forth, to bear] A woman who has been delivered of one infant of 500 g (or of 20 weeks' gestation), regardless of its viability.

**primiparous** (prī-mīp'ā-rūs) Pert. to a primipara.

**primitive** (prīm'ī-tīv) [L. *primitivus*] Original; early in point of time; embryonic.

**primitive neuroectodermal tumor** Medulloblastoma.

**primitive streak** In embryology, the initial band of cells from which the embryo begins to develop. These cells are at the caudal end of the embryonic disk. It is present at about 15 days after fertilization.

**primordial** (prī-mor'dē-āl) [L. *primordialis*] **1.** Existing first. **2.** Existing in an undeveloped, primitive, or early form.

**primordium** (prī-mor'dē-ūm) *pl.* **primordia** [L., origin] The first accumulation of cells in an embryo that constitutes the beginning of a future tissue, organ, or part. SYN: *anlage*.

**primum non nocere** (prī'mūm nōn nō'sē-rā) [L.] "First do no harm," the goal in health care, of avoiding actions that may worsen a patient's disease or suffering. SEE: *risk-benefit analysis*.

**princeps** (prīn'sēps) [L., chief] **1.** Original; first. **2.** The name of certain arteries (e.g., princeps cervicis). **3.** Chief, principal.

**principal** (prīn'sī-pāl) **1.** Chief. **2.** Outstanding.

**principle** (prīn'sī-pl) [L. *principium*, foundation] **1.** A constituent of a compound representing its essential properties. **2.** A fundamental truth. **3.** An established rule of action.

**active p.** The portion of a pharmaceutical preparation that produces the therapeutic action.

**gastrointestinal p.** An archaic term used to denote hormones, such as cholecystokinin, gastrin, and secretin, which are secreted by mucosal cells of the gastrointestinal tract and absorbed into the blood.

**reality p.** SEE: *reality principle*.

**Prinivil** (prīn'ī-vīl) SEE: *lisinopril*.

**Prinzmetal's angina** (prīnz-mē-tāl) [Myron Prinzmetal, U.S. cardiologist, 1908-1987] Variant angina. SEE: under *angina*.

**prion** (prē'ōn) A small proteinaceous infectious particle that is believed to be responsible for central nervous system diseases (*spongiform encephalopathies*) in humans and other mammals.

**prion disease** Any transmissible neurodegenerative disease believed to be caused by a proteinaceous infectious particle (also known as prion proteins, or PrPs). PrPs change other cellular proteins, producing intracellular vacuoles ("spongiform change") that disrupt the functioning of neurons. Included in this group are Creutzfeldt-Jacob disease, Gerstmann-Strüssler-Scheinker syndrome, kuru, and fatal familial insomnia in humans, mad cow disease

(bovine spongiform encephalopathy), and scrapie in sheep and goats. Prion diseases may be transmitted by hereditary changes in the gene coding PrP; by contaminated biological agents such as plasma or serum, human growth hormone, and organ transplants; and possibly, by eating the flesh of infected animals. All prion diseases are characterized by a long incubation period, followed by a rapidly progressive dementia.

**prior authorization** The approval by an insurer or other third-party payor of a health care service before the service is rendered. This approval is required in order for the insurer to pay the provider for the service.

**prism** (prĭzm) [Gr. *prisma*] A transparent solid, three sides of which are parallelograms. The bases, perpendicular to the three sides, are triangles, and a transverse section of the solid is a triangle. Light rays going through a prism are deflected toward the base of the triangle and at the same time are split into the primary colors.

**enamel p.** Enamel rod.

**Maddox p.** Two base-together prisms used in testing for cyclophoria or torsion of the eyeball.

**Nicol p.** A prism made by splitting a prism of Icelandic spar and rejoining the cut surfaces. This causes the light passing through to be split. Ordinary light rays are reflected by the joined surfaces, and polarized light is transmitted.

**Risley's rotary p.** A prism mounted in a device that allows it to be rotated. This is used in testing eye muscle imbalance.

**prismatic** (prĭz-măt'ĭk) **1.** Shaped like a prism. **2.** Produced by a prism.

**prismoid** (prĭz'moyd) [' + *eidos*, form, shape] Resembling a prism.

**prismoptometer** (prĭz-mōp-tōm'ē-tēr) [' + *opsis*, vision, + *metron*, measure] A device for estimating abnormal refraction of the eye by using prisms.

**privacy** In the medical context, the rights of a patient to control the distribution and release of data concerning his or her illness. This includes information the patient has provided to the health care professionals and all additional information contained in the chart, medical records, and laboratory data. Failure to observe this aspect of a patient's rights is classed as an invasion of privacy.

**privacy officer** (prĭ'vĭ-sē ōf'ĭ-sĭr) The health care administrator responsible for safeguarding patient confidentiality at a clinic or hospital. Under regulations of the Health Insurance Portability and Accountability Act (HIPAA), the privacy officer oversees institutional privacy policies, procedures, and rules.

**private patient** A patient whose care is

the responsibility of one identifiable health care professional, usually a physician or dentist. The health care professional is paid directly, either by the patient or by the patient's insurer.

**private practice** The practice by a health care professional, usually a physician or dentist, in a setting in which the practice and the practitioner are independent of external policy control other than ethics of the professional and state licensing laws.

**privilege** (prĭv'ĭ-lĭj) [L. *privilegium*, law affecting a single person, prerogative]

**1.** A right granted to a person in recognition of some special status, e.g., a right to practice one's profession in a health care facility. **2.** An immunity from commonly imposed standards or laws.

**privileged communication** Confidential information furnished (to facilitate diagnosis and treatment) by the patient to a professional authorized by law to provide care and treatment. In some states, the person who has received this communication cannot be made to divulge it. When this is the case, communication between the patient and the recipient is classed as privileged.

Information given by the patient with the family present may not be considered privileged.

**prn** [L. *pro re nata*]; according to circumstances; as necessary. Frequently used in prescription and order writing.

**pro-** [L., Gr. *pro*, before] Prefix indicating for, in front of, before, from, in behalf of, on account of. SEE: also *ante-*; *pre-*.

**proaccelerin** (prō-āk-sēl-ēr-in) The fifth factor (factor V) in blood coagulation. SEE: *coagulation factor*.

**proagglutininoid** (prō'ā-gloo'tĭ-noyd) An agglutininoid having a greater affinity for the agglutinin than that possessed by the agglutinin.

**proal** (prō'āl) [Gr. *pro*, before] Concerning forward movement.

**proanthocyanidin** (prō-ānthō-sĭ-ān'ĭ-dĭn) A chemical in cranberry juice that is believed to inhibit the adhesion of *Escherichia coli* to the mucosa of the urinary tract.

**proarrhythmia** (prō-ā-rĭth'mē-ā) An arrhythmia that is stimulated, provoked, or worsened by drug therapy. **proarrhythmic**, *adj.*

**probability** **1.** Likelihood. **2.** The ratio that expresses the possibility of the occurrence of a specific event. The probability of a tossed coin landing heads or tails is one-half or 50% each. This 50% probability remains the same every time a coin is tossed. Probability ratios based on sophisticated techniques are used for estimating the chance of occurrence of diseases in a population and in projecting vital statistics such as birth and death rates.

**proband** (prō' bānd") [L. *probare*, to test] The initial subject presenting a mental or physical disorder and who causes a study of his or her heredity in order to determine if other members of the family have had the same disease or carry it. SYN: *index case*; *propositus*.

**probang** (prō'bāng) A slim, flexible rod with a sponge or similar material attached to the end; used for determining the location of strictures in the larynx or esophagus and for removing objects from the trachea. Medicines may also be applied to these areas by use of this device.

**probationer** (prō-bā'shūn-ēr) A person being evaluated while working during a trial period, as a student nurse just after entering training.

**probe** (prōb) [L. *probare*, to test] An instrument, usually flexible, for exploring the depth and direction of a wound or sinus.

**dental p.** A dental instrument formally known as a periodontal probe.

**Florida p.** A periodontal probe connected to a computer that measures the depth of periodontal pockets automatically.

**heater p.** A surgical instrument that is advanced through an endoscope and used to cauterize bleeding peptic ulcers. The probe applies thermal energy directly to the bleeding vessel, and works best when it is pressed forcefully onto the lesion.

**periodontal p.** A fine-caliber probe, calibrated in millimeters, designed and used to measure the depth and extent of the gingival sulcus and periodontal pockets present.

**probiotic** (prō'bī-ō'tīk) [Gr. *pro*, on behalf of, + *bios*, life] Having favorable or health-promoting effect on living cells and tissues. For example, *Lactobacillus acidophilus* present in the gastrointestinal tract is probiotic because its presence inhibits the growth of harmful bacteria such as *Salmonella* and *Listeria*.

**probity** (prō' bī-tē, prōb') Rectitude, integrity, or honesty; a characteristic expected of professionals.

**problem drinking** The consumption of any amount of alcohol that causes life problems for the drinker. Issues related to the unhealthy use of alcohol arise when drinking compromises one's job, legal standing, social relationships, or health. Problem drinking is often used as a synonym for alcohol abuse or alcoholism.

**problem-oriented medical record** ABBR: POMR. Method of establishing and maintaining the patient's medical record so that problems are clearly listed, usually in order of importance, and a rational plan for dealing with them is stated. These data are kept at the front of the chart and are evaluated

as frequently as indicated with respect to recording changes in the patient's status as well as progress made in solving the problems. Use of this system may bring a degree of comprehensiveness to total patient care that might not be possible with conventional medical records.

**problem-oriented record** ABBR: POR. SEE: *problem-oriented medical record*.

**problem-solving therapy** ABBR: PST. A form of brief psychotherapy (typically lasting 10 sessions or less) in which patients are taught a structured approach to recognizing problems and finding workable solutions.

**pro bono publico** (prō bō' nō pūb' lī-kō, poob-) Rendered for the public good (i.e., without financial reward).

**procarboxypeptidase** (prō'kār-bōk'sē-pēp'tī-dās) The inactive precursor of carboxypeptidase, which is activated by trypsin.

**prokaryote** (prō-kār'ē-ōt) [Gr. *pro*, before, + *karyon*, nucleus] Prokaryote.

**procedure** (prō-sē'diūr) [L. *procedere*, to proceed] A particular way of accomplishing a desired result.

**Blalock-Hanlon p.** SEE: *Blalock-Hanlon procedure*.

**Burch p.** SEE: *Burch procedure*.

**staged p.** Any operation undertaken in two or more separate parts, with a lull between the two stages to facilitate tissue healing or clearance of infection.

**procentriole** (prō-sēn'trē-ōl) The early form of the centrioles and ciliary basal bodies in the cell. SEE: *centriole*.

**procercoid** (prō-sēr'koyd) The first larval stage in the development of certain cestodes belonging to the order Pseudophyllidea. It is an elongated structure that develops in crustaceans.

**process** (prōs'ēs) [L. *processus*, going before] 1. A method of action. 2. The state of progress of a disease. 3. A projection or outgrowth of bone or tissue. 4. A series of steps or events that lead to achievement of specific results.

**acromial p.** Acromion.

**acromion p.** Acromion.

**alveolar p.** The portion of the mandible and maxilla containing the tooth sockets. SYN: *alveolar bone*.

**articular p. of vertebra** One of four small, flat processes (two superior and two inferior) by which vertebrae articulate with each other.

**basilar p.** The narrow part of the base of the occipital bone, in front of the foramen magnum, articulating with the sphenoid bone. SYN: *pars basilaris ossis occipitalis*.

**caudate p.** The process of the caudate lobe of the liver extending under the right lobe.

**ciliary p.** One of about 70 prominent meridional ridges projecting from the

corona ciliaris of the choroid coat of the eye to which the suspensory ligament of the lens is attached. These have the same structure as the rest of the choroid and secrete aqueous humor, which nourishes neighboring parts, the cornea, and lens.

**clinoid p.** Any of three pairs of bony processes on the top of the body of the sphenoid bone, overhanging the edges of the sella turcica.

**condyloid p.** A posterior process on the superior border of the ramus of the mandible consisting of a capitulum and neck. It articulates with the mandibular fossa of the temporal bone. SEE: *mandible* for illus.

**coracoid p.** A beak-shaped process extending upward and laterally from the neck of the scapula. The coracoid process is not part of any bone-to-bone articulation although the coracoclavicular ligament holds the clavicle against the acromion of the scapula. The muscles attaching to the coracoid process are the pectoralis major, coracobrachialis, and the short head of the biceps brachii. SEE: *scapula*.

**coronoid p.** 1. The process on the proximal end of the ulna that forms the anterior portion of the semilunar notch. 2. The process on the anterior upper end of the ramus of the mandible that serves for attachment of the temporalis muscle. SEE: *mandible* for illus.

**ensiform p.** Xiphoid process.

**frontal p.** An upward projection of the maxilla that articulates with the frontal bone; forms part of the orbit and nasal fossa.

**infraorbital p.** The medially projecting process of the zygomatic bone that articulates with the maxilla. It forms the inferior lateral margin of orbit.

**lacrimal p.** A short process of the inferior concha that articulates with the lacrimal bone.

**lenticular p.** A knob on the incus in the middle ear that articulates with the stapes.

**mastoid p.** SEE: *mastoid process*.

**nursing p.** SEE: *nursing process*.

**odontoid p.** A toothlike process extending upward from the axis and about which the atlas rotates. SYN: *dens*.

**olecranon p.** Olecranon.

**palatine p.** A process extending transversely from the medial surface of the maxilla. With the corresponding process from the other side, it forms the major portion of the hard palate.

**pterygoid p.** The process of the sphenoid bone extending downward from the junction of the body and great wing. It consists of the lateral and medial pterygoid plates, which are fused at the top. The top of the pterygoid process is pierced by the pterygoid canal.

**spinous p. of vertebrae** The posterior-most part of a vertebra. This spine projects back and serves as a point of attachment for muscles of the back.

**styloid p.** 1. A pointed process of the temporal bone, projecting downward, and to which some of the muscles of the tongue are attached. 2. A pointed projection behind the head of the fibula. 3. A protuberance on the outer portion of the distal end of the radius. 4. An ulnar projection on the inner side of the distal end.

**transverse p.** The process extending laterally and dorsally from the arch of a vertebra.

**unciform p.** 1. Long thin lamina of bone from the orbital plate of the ethmoid articulating with the inferior turbinate. 2. The hook at the anterior end of the hippocampal gyrus. 3. The hooked end of the unciform bone.

**uncinate p. of the ethmoid bone** A sickle-shaped bony process on the medial wall of the ethmoidal labyrinth below the concha.

**vermiform p.** Vermiform appendix.

**vocal p.** The process of the arytenoid cartilage that serves for attachment of the vocal cord.

**xiphoid p.** The lowest portion of the sternum; a sword-shaped cartilaginous process supported by bone. No ribs attach to the xiphoid process; however, some abdominal muscles are attached. The xiphoid process ossifies in the aged SYN: *ensiform p.*; *xiphisternum*.

**processing** In radiology, the use of a developer, fixer, washer, and dryer to change a latent film image or electrical impulses to a visible image for interpretation.

**daylight p.** The use of an automatic system that accepts radiographic film, inserts it into the processor, and refills the cassette without the need for a dark-room.

**extended p.** In mammography, an increase of the development time or developer temperature to enhance image contrast and/or lower the radiation dose to the patient.

**processor** 1. In radiology, a machine that helps to convert the latent image to a visible image. It consists of a transporter, electrical system, temperature control, circulation system, and dryer. 2. Tissue processor. 3. That portion of a computer's central processing unit that analyzes and prepares information for display.

**prochondral** (prō-kōn'drāl) [ " + *chondros*, cartilage] Preceding the formation of cartilage.

**procidencia** (prō'sī-dēn'shē-ä) [L.] Pro-lapse of the uterus.

**procoagulant** (prō'kō-äg'ū-lēnt) [ " + " ]  
1. Speeding or promoting blood clotting

(adj.). 2. Any agent that promotes blood clotting (n.).

**procoagulant factor** (prō-kō-āg'ū-lānt)

A lymphokine that can assume the role of factor VIII, antihemophilic factor, in coagulation cascade.

**procollagen** (prō-kōl'ā-jēn) [ " + *kolla*, glue, + *gennan*, to produce] Precursor of collagen.

**proconvertin** (prō'kōn-vēr'tin) Coagulation factor VII.

**proconvulsive** (prō-kōn-vūl'siv) Able or likely to provoke seizures.

**procreate** (prō'krē-āt) [L. *procreare*] To beget; to be the parents of an infant.

**procreation** (prō'krē-ā'shūn) The act or state of conceiving and giving birth to an infant. SYN: *reproduction*.

**proct-** SEE: *procto-*.

**proctalgia** (prōk-tāl'jē-ā) [ " + *algos*, pain] Pain in or around the anus and rectum.

**p. fugax** Severe rectal or anal pain, usually occurring in young men, possibly as a result of muscular spasms.

**proctatresia** (prōk'tā-trē'zē-ā) [ " + *atresia*, imperforation] Imperforation of the anus.

**proctectasia** (prōk'tēk-tā'sē-ā) [ " + *ektasis*, dilatation] Dilatation of the anus or rectum.

**proctectomy** (prōk-tēk'tō-mē) [ " + *ektome*, excision] Excision of the rectum or anus.

**proctitis** (prōk-tī'tis) [ " + *itis*, inflammation] Inflammation of the rectum and anus that may be caused by sexually transmitted diseases (e.g., infections with herpes simplex virus, *Neisseria gonorrhoeae*, *Chlamydia trachomatis*, and others); radiation injury (e.g., after treatment of pelvic cancers); inflammatory bowel disease (e.g., ulcerative colitis); allergy; trauma; or ischemia.

**diphtheritic p.** Proctitis caused by diphtheria; a rare condition in a time when vaccination against diphtheria is routine.

**dysenteric p.** Proctitis resulting from infectious diarrhea. It may produce ulcers and scarring of the rectum and anus.

**gonococcal p.** Gonorrheal infection around the rectum and anus.

**traumatic p.** Proctitis that results from anal or rectal injury.

**procto-, proct-** Combining forms meaning *anus, rectum*.

**proctocele** (prōk'tō-sēl) [Gr. *proktos*, anus, + *kele*, tumor, swelling] A protrusion of the rectal mucosa into the vagina. SYN: *rectocele*.

**proctoclysis** (prōk-tōk'li-sis) [ " + *klysis*, a washing] Hydration of patients using a continuous slow infusion of fluids into the rectum and colon. The treatment sometimes is used for pallia-

tion of thirst in terminally ill patients who cannot receive fluids by other means. SEE: *enteroclysis*.

**THERAPEUTIC EFFECT:** This procedure has the following therapeutic effects: to supply fluid in postoperative cases when fluids cannot be taken otherwise; to supply the body with fluid as in hemorrhage, vomiting, or diarrhea; to relieve thirst as in persistent vomiting; and to lower body temperature by giving ice water enemas.

**PATIENT CARE:** Any hydrating solution may be used (saline, free water, dextrose in water, etc.) depending on the patient's fluid or electrolyte needs. After the bowel is evacuated, a catheter is inserted approx. 40 cm into the bowel, and fluids are given at 250 to 300 ml/hr or less, depending on tolerance. If pain or distention develop, treatment should be discontinued.

**proctococcyphexia, proctococcyphexy**

(prōk'tō-kōk-sī-pēk'sē-ā, -kōk'sī-pēk'sē) [ " + *kokkyx*, coccyx, + *pexis*, fixation] Suture of the rectum to the coccyx.

**proctocolitis** (prōk'tō-kō-lī'tis) [ " + *kolon*, colon, + *itis*, inflammation] Inflammation of the colon and rectum.

**proctocolonoscopy** (prōk'tō-kō'lōn-ōs'kō-pē) [ " + " + *skopein*, to examine] Examination of the interior of the rectum and colon.

**proctocystoplasty** (prōk'tō-sis'tō-plās'tē) [Gr. *proktos*, anus, + *kystis*, bladder, + *plastos*, formed] Plastic surgery involving the rectum and bladder.

**proctocystotomy** (prōk'tō-sis-tōt'ō-mē) [ " + *kystis*, bladder, + *tome*, incision] Incision into the bladder through the rectum.

**proctodeum** (prōk-tō-dē'ūm) [ " + *hodaio*, a way] An ectodermal depression located caudally that, upon rupture of the cloacal membrane, forms the anal canal.

**proctodynia** (prōk'tō-dīn'ē-ā) [ " + *odyne*, pain] Pain in the rectum or around the anus.

**proctologic** (prōk'tō-lōj'ik) [ " + *logos*, word, reason] Concerning proctology.

**proctologist** (prōk'tōl'ō-jīst) [ " + *logos*, word, reason] One who specializes in diseases of the colon, rectum, and anus.

**proctology** (prōk-tōl'ō-jē) The phase of medicine dealing with treatment of diseases of the colon, rectum, and anus.

**proctoparalysis** (prōk'tō-pār-āl'ī-sis) [ " + *para*, at the side, + *lyein*, to loosen] Paralysis of the anal sphincter muscle.

**proctoperineoplasty** (prōk'tō-pēr'i-nē'ō-plās'tē) [ " + *perinaion*, perineum, + *plassein*, to form] Plastic surgery of the anus and rectum.

**proctopexia, proctopexy** (prōk-tō-pēk'sē-ā, prōk'tō-pēk'sē) [ " + *pexis*, fixation] Suture of the rectum to some



other part, for example, presacral fascia.

**proctoplasty** (prök'tō-plās'tē) [ " + *plastos*, formed] Plastic surgery of the anus or rectum.

**proctopolypus** (prök'tō-pōl'i-pūs) [ " + *polys*, many, + *pous*, foot] Polyp of the rectum.

**proctoptosis** (prök'tōp-tō'sis) [ " + *ptosis*, a dropping] Prolapse of the anus and rectum. SEE: *procidentia*.

**proctorrhagia** (prök'tō-rā'jē-ä) [ " + *rhegnynai*, to burst forth] Bleeding from the rectum.

**proctorrhaphy** (prök-tor'ä-fē) [ " + *rhaphe*, seam, ridge] Suturing of the rectum or anus.

**proctorrhea** (prök-tōr-ē'ä) [ " + *rhoia*, flow] Mucous discharge from the anus.

**proctoscope** (prök'tä-skōp") [ " + " ] An instrument used to inspect the rectum visually.

**proctoscopy** (prök-tōs'kō-pē) Inspection of the rectum with a proctoscope.

**proctosigmoidectomy** (prök'tō-sīg'moy-dēk'tō-mē) [ " + *sigma*, Gr. letter S, + *eidos*, form, shape, + *ektome*, excision] Surgical removal of the anus, rectum, and sigmoid flexure of the colon.

**proctosigmoiditis** (prök'tō-sīg'moyd-ī'tis) [ " + " + *eidos*, form, shape, + *itis*, inflammation] Inflammation of the rectum and sigmoid.

**proctosigmoidoscopy** (prök'tō-sīg-moyd-ōs'kō-pē) Visual examination of the rectum and sigmoid colon.

**proctospasm** (prök'tō-spāzm) [ " + *spasmos*, a convulsion] Rectal spasm.

**proctostasis** (prök'tō-stā'sis) [ " + *stasis*, stoppage] Constipation resulting from failure of the rectum to respond to defecation stimulus.

**proctostenosis** (prök'tō-stēn-ō'sis) [ " + *stenosis*, act of narrowing] Stricture of the anus or rectum.

**proctostomy** (prök'tōs'tō-mē) [ " + *stoma*, mouth] Surgical creation of a permanent opening into the rectum.

**proctotome** (prök'tō-tōm) [ " + *tome*, incision] A knife for incision into the rectum.

**proctotomy** (prök-tōt'ō-mē) Incision of the rectum or anus.

**PATIENT CARE:** The dressing is assessed frequently and the presence and amount of bleeding and drainage are recorded. Dressings should be changed or reinforced as prescribed by the physician. A T binder (female patients) or split T binder (male patients) is advantageous to ensure proper placement of the dressing. Pain is assessed and analgesia provided as prescribed. The wound is assessed for infection, and antibiotics prescribed as needed.

**proctoavotomy** (prök'tō-väl-vōt'ō-mē) [ " + *L. valva*, leaf of a folding door, + *Gr. tome*, incision] Incision of the rectal valves.

**procumbent** (prō-kūm'bēnt) [*L. procumbens*, lying down] Prone.

**procure** (prō-kūr') [*L. procurare*, to take care of] To obtain (e.g., an organ from a donor).

**procurvise** (prō-kūr'siv) [*L. procurvius*] Having an involuntary tendency to run forward.

**procurvation** (prō'kūr-vā'shūn) [*L. procurvare*, to bend forward] A bending forward.

**prodigiosin** (prō-dīj-ē-ō'sin) A bright red pigmented chemical synthesized by *Serratia marcescens* and several other bacteria. It is cytotoxic and antibacterial.

**prodromal** (prō-drō'mäl) [Gr. *prodromos*, running before] Pert. to the initial stage of a disease; the interval between the earliest symptoms and the appearance of a rash or fever.

**prodromal rash** A rash that precedes the true rash of an infectious disease.

**prodrome** (prō-drōm) *pl.* **prodromes, prodromata** A symptom indicative of an approaching disease.

**prodrug** (prō-drūg) An inert drug that becomes active only after it is transformed or metabolized by the body.

**product** (prōd'ūkt) [*L. productum*] Anything that is made; also, the resulting compound after the reaction of two chemical substances.

**production** (prō-dūk'shūn) Development or formation of a substance.

**production pressure** The perception that productivity is the primary goal of an institution rather than the provision of quality service. In health care institutions the pressure to move patients quickly from one status or setting to another, or to maximize bed occupancy, may sometimes take precedence over attention to detail and the provision of optimal care. To counteract such pressures, health care professionals must communicate clearly and effectively with each other, follow established safe practices, have methods for reporting errors, and have protocols that link providers of different organizational status.

**productive** (prō-dūk'tiv) Forming, esp. new tissue.

**productive inflammation** An infrequently used term for any inflammatory process in which there is marked cellular proliferation (e.g., in proliferative retinopathy).

**product liability** The debt that manufacturers and sellers owe the public for any damages their products cause. In health care, the U.S. Food and Drug Administration and applicable tort law regulate the responsibility for consumer product safety of medical devices, new technologies, prostheses and implants, telecommunications machinery, office equipment, supplies, and drugs.

**proencephalus** (prō'ēn-sēf'ä-lūs) [Gr.

*pro*, before, + *enkephalos*, brain] A deformed fetus in which the brain protrudes through a fissure in the frontal area of the skull.

**proenzyme** (prō-ēn'zīm) [" + *en*, in, + *zyme*, a leaven] The inactive form of an enzyme found within a cell, which, upon leaving the cell, is converted into the active form, such as pepsinogen, which is cleaved to pepsin by hydrochloric acid in gastric juice.

**proestrus** (prō-ēs'trūs) The period preceding estrus in females, characterized by development of ovarian follicles and uterine endometrium.

**professional** (prō-fesh'ūn-əl) [ME. *profession*, sacred vow] Pert. to a profession.

**p. misconduct** Behavior that is professionally unsuitable, potentially dangerous to patients, incompetent, disruptive, abusive, or illegal.

**nonphysician p.** Nonphysician provider.

**professionalism** (prō-fesh'ūn-əl-iz'm)

1. The competence and skill expected and required of a professional. 2. The status, practice, and methods of a professional as opposed to an amateur (e.g., in sports or music). SEE: *professional competence*.

**professional liability** The obligation of health care providers or their insurers to pay for damages resulting from the provider's negligent acts of omission or commission in treating patients.

**professional liability insurance** A type of insurance contract that provides compensation for a person or party injured by a professional's acts or omissions. Two common types of policies are as follows: (1) *Claims made*. The claim for damages by the injured party must be made during the policy coverage period in order for the professional to be covered and represented by the insurance company. (2) *Occurrence basis*. The claim for damages by the injured party is covered by the insurance company as long as the act of professional liability occurs during the policy coverage period, even though the claim is filed after the coverage period ends.

**Professional Standards Review Organization** ABBR: PSRO. Peer review at the local level required by Public Law 92-603 of the U.S. for the services provided under the Medicare, Medicaid, and maternal and child health programs funded by the federal government. The major goals of the PSRO program are as follows: to ensure that health care services are of acceptable professional quality; to ensure appropriate use of health care facilities at the most economical level consistent with professional standards; to identify lack of quality and overuse problems in

health care and improve those conditions; to attempt to obtain voluntary correction of inappropriate or unnecessary practitioner and facility practices, and, if unable to do so, recommend sanctions against violators.

**profibrinolysin** (prō'fī-brī-nō-lī'sīn) [Gr. *pro*, before, + L. *fibra*, fiber, + Gr. *lysis*, dissolution] The inactive precursor of the proteolytic enzyme fibrinolysin.

**proficiency** (prō-fish'ēn-sē) [L. *proficere*, to move forward, to accomplish] Expertise; skill.

**proficiency test** A formal assessment of the quality of work. Proficiency tests for health care personnel are commonly performed in the clinical laboratory to ensure that standard procedures are followed and that laboratory results are reliable.

**profile** (prō'fil) [L. *pro*, forward, + *filare*, to draw a line] 1. An outline of the lateral view of an object, esp. the human head. 2. A summary, graph, or table presenting a subject's most notable characteristics. 3. A comprehensive history of the use of health care services. SEE: *practice p.*

**biophysical p.** ABBR: BPP. A system of estimating current fetal status, determined by analyzing five variables via ultrasonography and nonstress testing. Fetal breathing movements, gross body movement, fetal tone, amniotic fluid volume, and fetal heart rate reactivity are each assigned specific values. Each expected normal finding is rated as 2; each abnormal finding is rated as 0. Scores of 8 to 10 with normal amniotic fluid volume and a reactive nonstress test (NST) indicate satisfactory fetal status. A score of 6 with normal amniotic fluid volume requires reassessment of a preterm fetus within 24 hr of delivery. Scores of less than 6 or a nonreactive NST indicate fetal compromise and require prompt delivery. SYN: *fetal biophysical p.* SEE: *Apgar score*.

**drug p.** The unique characteristics of a drug or class of drugs, including their administration, absorption, metabolism, duration of action, toxicity, and interactions with foods or other medications.

**fetal biophysical p.** Biophysical profile.

**iceberg p.** Profile of a person with a psychological outlook characterized by more vigor and less tension, depression, anger, fatigue, and confusion than is found in others. This type of affect often is found in elite athletes and others with physically active lifestyles.

**practice p.** A performance-based method of assessing the professional behaviors of individual practitioners. A typical profile may include data about a

practitioner's patients, their known illnesses, their drug therapies, their immunization history, hospitalization rate, use of other services, and the cost of specific aspects of their care. The profile of an individual practitioner's performance could provide information such as the number of his or her patients who are screened for cancer or diabetes mellitus, or the number of patients treated for a particular condition who survive. The profile could be used to further a practitioner's education, to influence future care patterns, to certify or recertify health care providers, or to assist decisions about the hiring, retention, or dismissal of professionals who provide health care services. The outcome of establishing practice profiles could help to increase the quality of medical care and to provide patients the opportunity of evaluating physicians. The methods used to profile practice are constantly evolving.

**PULSES p.** One of the first formal, widely used scales to assess daily living skills. PULSES is an acronym formed by the domains measured: *Physical condition, Upper extremity function, Lower extremity function, Sensory, Excretory, and psychosocial Status*. SEE: *activities of daily living*.

**safety p.** The chemistry, pharmacology, therapeutic effects, and adverse effects of an administered drug or other substance.

**profuvium** (prō-floo'vē-ūm) [L.] An excessive flow or discharge; a flux.

**p. seminis** The flow from the vagina of semen deposited during coition.

**profunda** (prō-fūn'dā) [L.] Deep seated; term applied to certain deeply located blood vessels.

**profundoplasty** (prō-fūn'dā-plās'tē) An operation to repair an obstructing lesion in a deep blood vessel, for example, of the deep femoral artery.

**profundus** (prō-fūn'dūs) [L.] Located deeper than the indicated reference point.

**progastrin** (prō-gās'trīn) The inactive precursor of gastrin.

**progenitor** (prō-jēn'ī-tor) [L.] An ancestor.

**progeny** (prōj'ē-nē) [ME. *progenie*] Offspring.

**progeria** (prō-jē'rē-ā) [Gr. *pro*, before, + *geras*, old age] The syndrome of premature aging, which may be an inherited disorder that is transmitted as an autosomal dominant trait. The incidence appears higher in children of older fathers. Onset is from birth to 18 months of age and the average age at death is 12 to 13 years.

**FINDINGS:** The child has an aged and wizened appearance. In addition there is small stature, slightness of

build, alopecia, thick and inelastic skin that has brownish spots on it, delayed dentition, high-pitched voice, prominent eyes, and infantile sex organs.

**progestagen** (prō-jēs'tū-jěn) [*progesta(tional)* + ""] A synthetic compound that mimics the physiological effects of progesterone.

**progestational** (prō'jēs-tā'shūn-āl)

**1.** Concerned with the luteal phase of the menstrual cycle, immediately after ovulation, at which time progesterone is secreted, further preparing the endometrium for implantation of a fertilized ovum. **2.** Referring to the hormone progesterone and its actions. **3.** Referring to a drug with actions similar to progesterone.

**progestational agent** Progestin (1).

**progesterone** (prō-jēs'tēr-ōn) A steroid hormone,  $C_{21}H_{30}O_2$ , obtained from the corpus luteum and placenta. It is responsible for changes in the endometrium in the second half of the menstrual cycle preparatory to implantation of the blastocyst. It facilitates implantation by inhibiting uterine motility and stimulates the development of the mammary glands. Progesterone is used to treat patients with menstrual disorders (secondary amenorrhea, abnormal uterine bleeding, luteal phase deficiency) and to manage renal or endometrial carcinoma. In combination with estrogen, it is used for contraception and postmenopausal hormone replacement therapy. SYN: *progestin* (1).

**progestin** (prō-jēs'tīn) **1.** A corpus luteum hormone that prepares the endometrium for implantation of the fertilized ovum. SYN: *progesterone; progestational agent*. **2.** Progestogen.

**progestogen** (prō-jēs'tō-jěn) Any natural or synthetic hormonal substance that produces effects similar to those due to progesterone.

**prognosis** (prō-glōs'īs) [Gr.] The tip of the tongue.

**proglottid** (prō-glōt'id) *pl.* **proglottides** [Gr. *pro*, before, + *glotta*, tongue] A segment of a tapeworm, containing both male and female reproductive organs. SEE: *Cestoda; tapeworm*.

**prognathic** (prōg-nā'thīk) [" + *gnathos*, jaw] Prognathous.

**prognathism** (prōg-nā'thīzm) [" + *gnathos*, jaw + *-ismos*, condition] Projection of the jaws beyond projection of the forehead.

**prognathous** (prōg-nā'thūs) Having jaws projecting forward beyond the rest of the face. SYN: *prognathic*.

**prognose** (prōg-nōs') To predict the course of a disease.

**prognosis** (prōg-nō'sīs) [Gr., foreknowledge] Prediction of the course and end of a disease, and the estimate of chance for recovery.

**prognosticate** (prög-nös'ti-kät) [Gr. *prognostikon*, knowing before] To make a statement on the probable outcome of an illness.

**program** A plan or system, usually printed, outlining procedures or actions to be followed.

**employee benefit p.** A group of economically useful goods or services workers receive from their employer in addition to salary. These often provide protection against unpleasant or catastrophic events. Examples include medical and dental insurance, disability income, retirement income, and life insurance.

**Individualized Education P.** ABBR: IEP. A documented program of intervention mandated for each child provided education-related rehabilitation services under federal legislation. The program guarantees a free and appropriate public education for children with disabilities. Decisions relating to Individual Educational Programs must be approved in Admission, Review and Discharge conferences mandated by federal legislation. Participants in these conferences should include parents or guardians, special educators, rehabilitation providers, and others as appropriate.

**needle exchange p.** Syringe exchange program.

**preprosthetic p.** Postsurgical intervention following amputation during which the patient is taught stump care, positioning, sitting tolerance, transfer techniques, and other skills that are necessary before prosthetic training can begin.

**prosthetic training p.** Systematic education and training provided to persons with amputations following fitting of a prosthetic device.

**syringe exchange p.** ABBR: SEP. A public health program for collecting used hypodermic syringes and exchanging them for sterile ones. Such programs are designed to decrease the spread of diseases (like AIDS and hepatitis C) that are transmitted by the sharing of contaminated needles.

**PATIENT CARE:** Syringe-exchange programs not only reduce the spread of blood-borne illnesses but also serve as gateways to other vital medical services for patients at risk (e.g., drug abusers who want to stop, or pregnant women, the mentally ill, malnourished, or those who need vaccination). In its position statement on needle exchange and HIV/AIDS, the American Nursing Association states, "nurses support the availability of needle exchange programs (that) include adherence to public health and infection control guidelines, access for referral to treatment and re-

habilitative services, and education about the transmission of HIV disease." Health care professionals must be familiar with federal and state laws about needle exchange. Most programs operate by providing a single sterile needle for each contaminated needle brought in by a client. Contaminated needles brought to exchange programs are treated as biomedical waste products and are managed by these programs according to public health guidelines. SYN: *needle exchange program*.

**12-step p.** A form of treatment, used primarily by persons who abuse alcohol or other substances, that relies on social support, interpersonal motivation, abstinence from the addictive substance, and spirituality.

**program of all-inclusive care for elderly** ABBR: PACE. A form of capitation administered in the U.S. by the Centers for Medicare and Medicaid Services in which frail older adults receive adult day care, outpatient or in-home medical care, and social services. The goal of the program is to foster independent living by the elderly, thus decreasing institutionalization.

**programming** Making a set of instructions guiding the actions of a computer, a piece of equipment, an organism, or a research investigation.

**progranulocyte** (prö-grän'ü-lö-sit) [" + L. *granula*, granule, + Gr. *kytos*, cell] Promyelocyte.

**progravid** (prö-gräv'id) [" + L. *gravidus*, pregnant] Preceding pregnancy.

**progress** [L. *progressus*, a going forward] The ongoing sequence of events of an illness.

**progression** (prö-grësh'ün) [L. *progressus*] An advancing or moving forward.

**progression-free** Diseases, such as cancer, not advancing or becoming worse or more symptomatic.

**progressive** (prö-grës'iv) Advancing, as a disease, from bad to worse.

**progressive hemifacial atrophy** A rare disorder for which there is no treatment usually affecting females in which cheek tissues on one side of the face gradually waste or deteriorate. The disease is often associated with local hair loss and may be accompanied by seizures or trigeminal neuralgia. The progression usually lasts between 2 and 10 years, but then enters a stable phase, at which time cosmetic surgery may be possible. SYN: *Parry-Romberg syndrome*.

**progressive lens** An eyeglass lens that gradually changes prescription strength from the top of the lens, which is used for viewing distance, to the bottom of the lens, which is used for seeing objects that are nearby. Progressive lenses enable the eyes to adjust from one distance

to another (e.g., when looking up from a book) without the “image jump” associated with bifocals, lenses that require the eye to shift between two separate prescriptions.

**progressive ossifying myositis** A tendency to bony deposits in the muscles with chronic inflammation.

**progressive systemic sclerosis** ABBR: PSS. A chronic disease of unknown etiology that occurs four times as frequently in women as in men. It causes sclerosis of the skin and certain organs including the gastrointestinal tract, lungs, heart, and kidneys. The skin is taut, firm, and edematous and is firmly bound to subcutaneous tissue, which often causes limitation of the range of motion; it feels tough and leathery, may itch, and later becomes hyperpigmented. The skin changes usually precede the development of signs of visceral involvement. A limited variant, called the CREST syndrome, includes only the following findings: calcinosis, Raynaud's phenomenon, esophageal dysfunction, sclerodactyly, and telangiectasia.

**TREATMENT:** There is no specific therapy. General supportive therapy is indicated. A great number of drugs including corticosteroids, vasodilators, D-penicillamine, and immunosuppressive agents have been tried. Physical therapy will help maintain range of motion and muscular strength but will not influence the course of joint disease.

**progress notes** An ongoing record of a patient's illness and treatment. Physicians, nurses, consultants, and therapists record their notes concerning the progress or lack of progress made by the patient between the time of the previous note and the most recent note. In patients who are not critically ill, a note concerning progress may be made daily or less frequently; for patients in critical care, notes may be made hourly. It is important that each note be clearly written, the date and time recorded, and the note signed.

**progress report** The written or verbal account of a patient's present condition, esp. as compared with the previous state.

**prohaptan** (prō-hăp'tĕn) A chemical (often a drug) that does not stimulate an immune response until it is metabolized into an immunologically reactive form by living cells.

**prohormone** (prō-hor'mōn) Precursor of a hormone.

**proinsulin** (prō-in'sū-lĭn) Precursor of insulin produced in the beta cells of the pancreas.

**projectile effect** The pulling of a ferromagnetic object (such as an oxygen cylinder, a respirator, or an IV pole) into the core of a magnetic resonance (MR)

imaging device when the magnetic field is turned on. The effect can have disastrous consequences for patients and health care personnel. Objects drawn into the MR travel at faster and faster speeds as they near the magnetic field core, which surrounds the part of the patient being imaged.



To enhance safety, patients should have all watches, jewelry, coins, hair pins, paperclips, pens, credit cards, metallic articles of clothing, and other magnetically sensitive objects removed before they enter an MR imaging suite.

**projection** (prō'jĕk'shŭn) [Gr. *pro*, before, + *jacere*, to throw] **1.** The act of throwing forward. **2.** A part extending beyond the level of its surroundings. **3.** The mental process by which sensations are referred to the sense organs or receptors stimulated, or outside the body to the object that is the stimulus. **4.** The distortion of a perception as a result of its repression, resulting in such a phenomenon as hating without cause one who has been dearly loved, or attributing to others one's own undesirable traits. These are characteristics of the paranoid reaction. **5.** In radiology, the path of the central ray of radiation from entry to exit of the body. In an anteroposterior projection, for example, the beam enters the anterior surface of the body and exits the posterior surface.

**isometric p.** A projection of an x-ray photon beam that yields an image having the same dimensions as the object being examined.

**lateral skull p.** A radiograph in which the central ray is directed through the acoustic meatus and perpendicular to the midsagittal plane of the cranium and the radiographical film. It is used to evaluate the skull for abnormalities caused by developmental or connective tissue diseases, cancer, and trauma. SEE: *lateral cephalometric radiograph*.

**projective technique** (prō-jĕk'tĭv) Any one of several forms of psychological assessment or evaluation. Using ambiguous activities and tasks which encourage self-expression, the products or results and the individual's verbalizations about them are evaluated and interpreted to determine indications of unconscious needs, thoughts, or concerns.

**prokaryon** (prō-kār'ĕ-ōn) [" + *karyon*, nucleus] **1.** Nuclear material that is spread throughout the cell cytoplasm and is not bounded by a membrane. **2.** Prokaryote.

**Prokaryotae** (prō-kār'ĕ-ō-tĕ) In taxonomy, the kingdom of organisms with prokaryotic cell structure, that is, they lack membrane-bound cell organelles



and a nuclear membrane around the chromosome. Included are the bacteria and cyanobacteria (formerly the blue-green algae). SYN: *Monera*.

**prokaryote** (prō-kār'ē-ōt) [*"* + *karyon*, nucleus] An organism of the kingdom Monera with a single, circular chromosome, without a nuclear membrane, or membrane-bound organelles (i.e., mitochondria and lysosomes). Included in this classification are bacteria and cyanobacteria (formerly the blue-green algae). SYN: *procarvate*; *prokaryon* (2). SEE: *eukaryote*.

**prokinetic** (prō'kīn-ēt'ik) Producing increased activity of the muscles of the stomach and the upper gastrointestinal tract.

**prokineticin** (prō'kīn-ēt'ī-sīn) A class of proteins that stimulate intestinal muscles to contract.

**prolactin** (prō-lāk'tīn) [*"* + *lac*, milk] A hormone produced by the anterior pituitary gland. In humans, prolactin in association with estrogen and progesterone stimulates breast development and the formation of milk during pregnancy. The act of sucking is an important stimulus for the production of prolactin in the postpartum period. Some of the metabolic effects of prolactin resemble those of growth hormone. In the female this includes amenorrhea, galactorrhea, and infertility. In the male it may cause erectile dysfunction. Hyperprolactinemia may be associated with amenorrhea in women and reduced sexual potency in men. Thyrotropin-releasing hormone and stress of all kinds can stimulate prolactin release.

**prolactinoma** (prō-lāk-tī-nō'mā) An adenoma of the pituitary gland (found more often in women than in men) that produces excessive amounts of prolactin and, in some cases, endocrine effects such as galactorrhea or amenorrhea, or visual effects due to compression of the optic chiasm. Treatments may include surgical removal of the tumor or suppression of the gland with drugs such as bromocriptine.

**prolamin, prolamine** (prō'lā-mīn, -mēn [pro(ine) + am(onia)]) A class of vegetable proteins found in seeds and cereal grains (e.g., wheat, rye, barley, and corn) that contain high levels of glutamic acid.

**prolapse** (prō-lāps') [L. *prolapsus*] A falling or dropping down of an organ or internal part, such as the uterus or rectum. SEE: *mitral valve prolapse*; *proci-dentia*; *ptosis*.

**p. of the iris** Protrusion of the iris through an injury in the cornea.

**lumbar disk p.** Herniated intervertebral disk.

**pelvic organ p.** Protrusion of the pelvic organs into or through the vaginal canal. This condition is usually due to

direct or indirect damage to the vagina and its pelvic support system. The damage may be related to stretching or laceration of the vaginal wall, hypoestrogenic atrophy, or injury to the nerves of the pelvic support structures.

**SYMPTOMS:** Symptoms include a sensation of pelvic pressure, groin pain, coital difficulty, sacral backache, bloody vaginal discharge, difficult bowel movements, and urinary frequency, urgency, or incontinence.

**PROPHYLAXIS:** Preventive measures include treatment of chronic respiratory disorders or constipation, estrogen replacement for menopausal women, weight control, smoking cessation, avoidance of strenuous occupational or recreational stresses to the pelvic support system, and pelvic muscle exercise to strengthen the pelvic diaphragm.

**TREATMENT:** Treatment may be nonsurgical (e.g., use of a vaginal pessary) or surgical, including reconstructive operations, vaginal hysterectomy, and cystocele or rectocele repair.

**p. of the rectum** Protrusion of the rectal mucosa or full thickness of the rectum (proci-dentia). Internal or complete rectal prolapse can be identified radiographically or endoscopically without transanal protrusion.

**p. of the umbilical cord** Premature expulsion of a loop of umbilical cord into the cervical or vaginal canal during labor before engagement of the presenting part, a potentially life-threatening event that occurs in about 2 of 1000 births. The greatest danger of cord prolapse is neonatal asphyxia and death. SEE: *deceleration*.

**p. of the uterus** Downward displacement of the uterus from its normal position in the female reproductive tract. It can be classified by its severity: 1st degree: the cervix is within the vagina; 2nd degree: the cervix protrudes through the introitus; 3rd degree: the uterus and inverted vaginal walls lie outside of the vaginal introitus. Uterine prolapse is usually caused by relaxation of the tissues that provide support for the pelvic organs. SYN: *hysteroptosis*; *proci-dentia*.

**prolapsus** (prō-lāp'sūs) [L.] Prolapse.  
**prolepsis** (prō-lēp'sīs) [Gr. *pro*, before, + *lepsis*, a seizure] The return of paroxysmal attacks at successively shorter intervals. **proleptic**, *adj.*

**proleukocyte** (prō-lū'kō-sīt) [*"* + *leukos*, white, + *kytos*, cell] An undeveloped leukocyte.

**proliferate** (prō-lif'ēr-āt) [L. *proles*, offspring, + *ferre*, to bear] To increase by reproduction of similar forms.

**proliferation** (prō-lif'ēr-ā'shūn) **1.** Rapid and repeated reproduction of new parts, as by cell division. **2.** The process or result of rapid reproduction.

## Tests for Premature Rupture of Membranes

Test	How it is done	Discussion
alpha-fetoprotein (AFP) kit	Detects abnormally high concentrations of AFP in vaginal fluids	Sensitivity and specificity are high, about 90-95%
ferning	Assessment of the appearance of dried cervical mucus on a microscope slide. A branching appearance of the dried mucus represents a positive test.	Sensitivity and specificity are only fair (about 60-75%)
fetal fibronectin (fFn) test	Sample cervicovaginal secretions for fFN with a qualitative immunoassay or dipstick indicator	Sensitivity and specificity are high, about 85-95%
intra-amniotic dye injection	Phenol-sulfonphthalein (PSP) or other dye indicators are injected into the amniotic fluid, and assessments are made of the leakage of dye into the vagina.	Sensitivity and specificity are high, but the test is invasive.
nitrazine test	pH indicator test—insert a strip of paper impregnated with nitrazine into the vaginal vault and observe for change in color.	Sensitivity and specificity are only fair (about 60-75%)
ultrasonography	An ultrasound transducer is used transvaginally to determine the length of the cervix. Shorter lengths correlate with an increased risk of premature rupture of membranes.	Sensitivity and specificity are low, esp. in women at low risk for premature delivery. The test is sometimes used in conjunction with other studies.

**proliferative integrative therapy** (prō-lif'ēr-ā-tiv) ["] Prolotherapy.

**proliferous** (prō-lif'ēr-ūs) **1.** Multiplying, as by formation of new tissue cells. **2.** Bearing offspring.

**prolific** (prō-lif'ik) [L. *prolificus*] Fruitful; reproductive. SYN: *fertile*.

**prolinase** (prō'lin-āz) An enzyme that is found in animal tissues and yeast and that hydrolyzes proline peptides to simpler peptide and proline.

**proline** (prō'lēn) C<sub>4</sub>H<sub>9</sub>NCOOH; an amino acid formed by digestion of protein. Proline is a constituent of collagens.

**prolonged QT syndrome, long QT syndrome, QT syndrome** A life-threatening syndrome marked by a prolonged Q-T interval combined with episodes of electrocardiographic torsades de pointes. This condition may be inherited or may be acquired as a result of drug administration. Inherited variants of the long QT syndrome include Romano-Ward syndrome and Lange-Nielsen syndrome.

**prolotherapy** (prō' lō-thēr' ū-pē) The injection of sclerosing solutions (or solutions that contain ingredients such as highly concentrated dextrose) into ligaments, in an attempt to strengthen the

ligaments and treat musculoskeletal pain.

**prolymphocyte** (prō'limf'ō-sīt) ["] + L. *lymphā*, lymph, + Gr. *kytos*, cell] A cell intermediate between a lymphoblast and lymphocyte.

**PROM** *premature rupture of membranes*. SEE: table.

**promegakaryocyte** (prō-mēg'ā-kār'ē-ō-sīt) ["] + *megas*, big, + *karyon*, nucleus, + *kytos*, cell] A cell from which a megakaryocyte develops.

**promegaloblast** (prō-mēg'ā-lō-blast") ["] + " + *blastos*, germ] A cell of the erythrocyte series preceding the megalo-blast.

**prometaphase** (prō-mēt'ā-fāz) ["] + *meta*, change, + *phasis*, to appear] The stage of mitosis in which the nuclear membrane disintegrates, and the chromosomes move toward the equator of the cell.

**promethium** (prō-mē'thē-ūm) SYMB: Pm. A radioactive element of the rare earth series; atomic weight 144.9128; atomic number 61.

**prominence** (prōm'i-nēns) [L. *prominens*, project] A projection or protrusion.

**promonocyte** (prō-mōn'ō-sīt) [Gr. *pro*, before, + *monos*, single, + *kytos*,

cell] In the development of white blood cells, the precursor of the monocyte. It is between the monoblast and monocyte.

**promontory** (prōm'ōn-tor'ē) [L. *promontorium*] A projecting process or part.

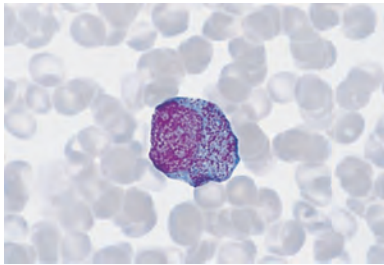
**p. of the sacrum** The anterior projecting portion of the pelvic surface of the base of the sacrum. With the fifth lumbar vertebra, it forms the sacrovertebral angle.

**p. of the tympanic cavity** The projection on the medial wall of the tympanic cavity produced by the first turn of the cochlea.

**promoter** (prō-mō'tēr) A substance that assists a catalyst to act. SEE: *coenzyme*.

**prompt** Assistance, reinforcement, or feedback given during the acquisition or relearning of skills necessary for task completion.

**promyelocyte** (prō-mī'ēl-ō-sīt) [Gr. *pro*, before, + *myelos*, marrow, + *kytos*, cell] **1.** A large mononuclear myeloid cell seen in the blood in leukemia. **2.** Cell development between a myeloblast and a myelocyte, resembling a myeloblast. SYN: *progranulocyte*. SEE: *il-lus*.



PROMYELOCYTE (×600)

**prone** (prō'nāt) To place in a prone position. SEE: *supinate*.

**prone** (prō-nā'shūn) [L. *pronus*, prone] **1.** The act of lying prone or face downward. **2.** The act of turning the hand so that the palm faces downward or backward. SEE: *supination*.

**pronator** (prō-nā'tōr) A muscle that pronates.

**pronator syndrome, Pronator teres syndrome** A neurological disorder caused by entrapment of the median nerve at the elbow. Symptoms and signs include aching in the wrist with a subjective feeling of poor coordination; paresthesias extending into the hand; paresis of the thumb muscles; pain on pronation of the forearm and flexion of the wrist against resistance; and tenderness in the proximal thenar muscles. A positive Tinel's sign over the pronator teres muscles may be present. The disease usually affects the dominant arm in men. The condition may be treated with

corticosteroid injections or orthopedic surgery.

**prone** (prōn) [ME.] **1.** Horizontal with the face downward. **2.** Denoting the hand with the palm turned downward. It is the opposite of supine. SYN: *prone posture*; *procumbent*.

**pronephros, pronephron** (prō-nēf'rōs, -rōn) The earliest and simplest type of excretory organ of vertebrates, functional in simpler forms (cyclostomes), and serving as a provisional kidney in some fishes and amphibians. In reptiles, birds, and mammals, it appears in the embryo as a temporary, functionless structure.

**prong** (prōng) A cone-shaped body such as the root of a tooth.

**pronograde** (prō'nō-grād) [L. *pronus*, prone, + *gradus*, a step] In animals, walking on the hands and feet or resting with the body in a horizontal position. It is the opposite of orthograde.

**pronometer** (prō-nōm'ē-tēr) [" + Gr. *metron*, measure] A device for showing the amount of pronation or supination of the forearm.

**pronormoblast** (prō-nor'mō-blāst) [Gr. *pro*, before, + L. *norma*, rule, + Gr. *blastos*, germ] An early precursor of the red blood cell.

**pronucleus** (prō-nū'klē-ūs) [Gr. *pro*, before, + *nucleus*, little kernel] The haploid nucleus of either the ovum or spermatozoon prior to their union in fertilization.

**prootic** (prō-ōt'ik, -ō'tik) [" + *ous*, ear] In front of the ear.

**prop** A device of sturdy material used to support or hold something in place.

**mouth p.** A metal or rubber device inserted between the jaws to maintain the mouth in an open position. SYN: *bite block*.

**propagation** (prōp-ā-gā'shūn) [L.] The act of reproducing or giving birth. SYN: *generation*; *reproduction*.

**propagative** (prōp'ā-gā'tiv) Pert. to or taking part in reproduction.

**propalinal** (prō-pāl'i-nāl) [Gr. *pro*, before, + *palin*, back] Applied to a backward and forward movement, as of the jaws.

**propane** (prō'pān) An inflammable odorless, colorless hydrocarbon, C<sub>3</sub>H<sub>8</sub>, that is present in natural gas.

**propellant** (prō-pēl'ānt) [L. *propellere*, to drive forward] Any agent that forces another to move in a desired direction. Inhaled medications rely on propellants to improve drug delivery to patients. Hydrofluoroalkane propellants are used in metered dose inhalers, i.e., in canisters that deliver drugs such as beta-agonists or anticholinergic agents to patients with asthma or chronic obstructive lung disease.

**propepsin** (prō-pēp'sin) Pepsinogen.

**propeptone** (prō-pēp'tōn) [" + *peptin*,

to digest] An intermediate product in the digestive conversion of protein into peptone. SYN: *hemialbumose*.

**propeptonuria** (prō'pēp-tō-nū'rē-ā) [ " + " + *ouron*, urine] Excretion of propeptone in the urine. SYN: *hemialbumosuria*.

**properdin** (prō-pērd'īn) A plasma protein that stabilizes the enzyme C3 convertase, and helps to activate the alternative pathway of the complement cascade. SEE: *complement*.

**prophase** (prō'fāz) [ " + *phasis*, an appearance] The first stage of cell division. SEE: *mitosis* for illustration.

**prophylactic** (prō-fi-lāk'tīk) [Gr. *prophylaktikos*, guarding] **1.** Any agent or regimen that contributes to the prevention of infection and disease. **2.** A popular term for a condom.

**prophylactic cranial irradiation** ABBR: PCI. Radiation therapy used to prevent cancers, e.g., small cell carcinoma of the lung, from metastasizing to the brain.

**prophylaxis** (prō-fi-lāk'sīs, prō-fil-āks'īs) [Gr. *prophylassein*, to guard against] Observance of rules necessary to prevent disease.

**oral p.** The removal of bacterial plaque, calculus, and stains from surfaces of the teeth, primarily by scaling and root planing. It is a preventative measure against gingivitis, halitosis, and periodontal disease.

**postexposure p.** A preventive measure taken to protect a person or community from harm after contact with disease-causing chemicals, germs, or physical agents.

**propiolactone** (prō'pē-ō-lāk'tōn) A disinfectant used in preparing certain viral and bacterial vaccines.

**Propionibacterium acnes** (prō-pē-ōn-ī-bāk-tēr'ē-ūm) A gram-positive bacillus that may be part of the normal skin flora, but can also be pathogenic in acne, wounds, and infected prosthetic devices. It was formerly called *Corynebacterium acnes*.

**propionic acid** (prō-pē-ōn'īk) C<sub>2</sub>H<sub>5</sub>COOH, methylacetic acid, which is present in sweat.

**proplasmacyte** (prō-plāz'mā-sīt) [Gr. *pro*, before, + LL. *plasma*, form, mold, + Gr. *kytos*, cell] The precursor of the plasma cell.

**proplastid** (prō-plās'tīd) An immature plastid.

**propofol** (prō'pō-fōl) A nonbarbiturate sedative used to induce anesthesia. It has a short duration of action and a rapid recovery time. Common side effects of its use include pain during injection and bradycardia.

**propolis** (prō-pō-līs) [Gr. *pro*, before, + *polis*, city] A sticky resin present in the buds and bark of certain trees and plants. It is collected by bees for the purpose of repairing combs, filling cracks,

and making the entrance to the hive waterproof. Propolis can be used as a topical antibacterial.

**proportional** In medical ethics, commensurate, that is, acceptably balanced between the risk for harm and the likelihood of benefit.

**proposition** (prōp-uh-zīsh'ēn) A statement about a concept or about the relationship between concepts. A proposition may be an assumption, a premise, a theorem, or a hypothesis. SEE: *assumption*; *hypothesis*; *premise*; *theorem*.

**propositus** (prō-pōz'ī-tūs) [L. *proponere*, to put on view] Proband.

**propoxyphene hydrochloride, propoxyphene napsylate** (prō-pōk'sē-fēn) A mild opioid pain reliever.

**proprioception** (prō'prē-ō-sēp'shūn) [L. *proprius*, one's own, + *capio*, to take] The awareness of posture, movement, and changes in equilibrium and the knowledge of position, weight, and resistance of objects in relation to the body. **proprioceptive** (-tīv), *adj.*

**proprioceptor** (prō'prē-ō-sēp'tor) [ " + *ceptor*, a receiver] A receptor that responds to stimuli originating within the body itself, esp. one that responds to pressure, position, or stretch (e.g., muscle spindles, pacinian corpuscles, and labyrinthine receptors).

**proprispinal** (prō'prē-ō-spī'nāl) [ " + *spina*, thorn] Concerned exclusively with the spinal cord.

**proptometer** (prō-tōm'ē-tēr) [Gr. *proptosis*, protrusion, + *metron*, a measure] An instrument for measuring the extent of exophthalmos.

**proptosis** (prōp-tō'sīs) An abnormal protrusion forward of the eyeball, seen in thyroid eye disease and tumors of the orbit. SEE: *exophthalmus*.

**propulsion** (prō-pūl'shūn) [L. *propulsus*, driven forward] **1.** A tendency to push or fall forward in walking. **2.** A condition seen in Parkinson's disease. SEE: *festination*.

**propyl** (prō'pīl) The radical of propyl alcohol or propane, CH<sub>3</sub>-CH<sub>2</sub>-CH<sub>2</sub>-.

**propylene glycol** (prōp'ī-lēn) A demulcent agent used as a solvent for medicines, and in cosmetics.

**propylparaben** (prō'pīl-pār'ā-bēn) Propyl *p*-hydroxybenzoate, C<sub>10</sub>H<sub>12</sub>O<sub>3</sub>, a chemical used as an antifungal agent and as a preservative in pharmaceuticals.

**pro re nata** (prō rē nā'tā) [L.] ABBR: prn. According to the circumstances; as necessary.

**prorubricyte** (prō-roo'brī-sīt) A basophilic normoblast.

**proscription** (prō-scrīp'shūn) Behavior restricted or forbidden by religious or cultural tenet or belief. SEE: *taboo*.

**prosecretin** (prō'sē-krē'tīn) [ " + *secretio*, separation] A substance present in the duodenal mucosa that, when acted

- on by hydrochloric acid in chyme, is converted into secretin. SEE: *secretin*.
- prosection** (prō-sĕk'shŭn) [" + L. *sectio*, a cutting] Dissection for the purpose of demonstrating anatomical structure.
- prosector** (prō-sĕk'tor) [L.] One who prepares cadavers for dissection or dissects for demonstration.
- prosencephalon** (prōs'ĕn-sĕf'ă-lŏn) [Gr. *proso*, before, + *enkephalos*, brain] The embryonic forebrain, which gives rise to the telencephalon and diencephalon.
- proso-** [Gr. *proso*, forward] Combining form indicating *forward, anterior*.
- prosodemic** (prōs'ō-dĕm'ik) [" + *demo*, people] Spread by individual contact; said of a disease. SEE: *epidemic*.
- prosody** (prōs'ă-dĕ) [L. *prosodia*, accent of a syllable] The normal rhythm, melody, and articulation of speech.
- prosopagnosia** (prōs'ō-păg-nō'sĕ-ă) [Gr. *prosopon*, face, + *a-*, not, + *gnosis*, recognition] An inability to recognize faces, even one's own face.
- prosopalgia** (prōs'ō-păl'jĕ-ă) [" + *algos*, pain] An infrequently used synonym for trigeminal neuralgia.
- prospectasia** (prōs'ō-pĕk-tă'zĕ-ă) [" + *ektasis*, dilatation] Abnormal enlargement of the face.
- prosoplasia** (prōs'ō-plă'sĕ-ă) [Gr. *proso*, forward, + *plassein*, to form] Progressive transformation of cells until they develop into cells with a higher degree of function.
- prosoponoschisis** (prōs'ō-pō'nōs'kĭ-sĭs) [Gr. *prosopon*, face, + *ana*, up, + *schisis*, a splitting] An oblique facial cleft, a slanting furrow extending from mouth to eye.
- prosopodiplegia** (prōs'ō-pō-dĭ-plĕ'jĕ-ă) [" + *dis*, twice, + *plege*, a stroke] Paralysis on both sides of the face.
- prosopodynia** (prōs'ō-pō-dĭn'jĕ-ă) [" + *odyne*, pain] Tic douloureux.
- prosoponeuralgia** (prōs'ō-pō-nŭ-răl'jĕ-ă) [" + *neuron*, sinew, + *algos*, pain] Trigeminal neuralgia.
- prosopoplegia** (prōs'ō-pō-plĕ'jĕ-ă) [" + *plege*, stroke] Facial paralysis.
- prosopospasm** (prōs'ō-pō-spăzm) [" + *spasmos*, a convulsion] Facial spasm.
- prosopocia** (prōs'ō-pō-tō'shĕ-ă) [" + *tokos*, birth] Presentation of the face in parturition.
- prospective payment system** A reimbursement method used in which a fixed, predetermined amount is allocated for treating patients with a specific diagnosis. It was originally developed for Medicare recipients. It is also called payment-by-diagnosis.
- prospective study** A clinical or epidemiological investigation of patients or subjects that begins with a specific environmental, medical, social event, or intervention and records the consequences of that event to a fixed date or conclusion. SEE: *retrospective study*.
- prostacyclin** (prōs-tă-sĭk'lin) Prostaglandin G<sub>2</sub>.
- prostaglandin** (prōs'tă-glăn'dĭn) ABBR: PG. Any of a large group of biologically active, carbon-20, unsaturated fatty acids that are produced by the metabolism of arachidonic acid through the cyclooxygenase pathway. They are autacoids: local short-range hormones that are formed rapidly, act in the immediate area, and then decay or are destroyed by enzymes. PGD<sub>2</sub>, PGE<sub>2</sub>, PGF<sub>2α</sub>, and PGI<sub>2</sub>, PGI<sub>2</sub> (prostacyclin), and TXA<sub>2</sub> (thromboxane) are important mediators of inflammation. Nonsteroidal anti-inflammatory drugs block the production of prostaglandins.
- PGs influence a broad range of biological effects, including vasodilation, vascular permeability, bronchoconstriction, platelet aggregation, dysmenorrhea, inhibition of gastric acid secretion, stimulation of neural receptors for pain during tissue damage, sleep inhibition, and maintenance of patent ductus arteriosus. Exogenous PGE<sub>2</sub> gel may be used to soften the cervix before induction of labor. SEE: *arachidonic acid; nonsteroidal anti-inflammatory drug; patent ductus arteriosus*.
- prostaglandin G<sub>1</sub>**, ABBR: PGI<sub>2</sub>. A compound formed from the metabolism of arachidonic acid. It is a potent vasodilator and inhibitor of platelet aggregation.
- prostaglandin inhibitor** A substance that inhibits the production of prostaglandins. Nonsteroidal and steroidal anti-inflammatory agents are two major categories that inhibit prostaglandins.
- prostanoids** (prōs-tă-nŏyds) The name of the end products of the cyclooxygenase pathway of the metabolism of arachidonic acid. These are prostaglandins and thromboxanes. SEE: *eicosanoid; prostaglandin; thromboxane A<sub>2</sub>*.
- prostat-** SEE: *prostat-*.
- prostatalgia** (prōs-tă-tăl'jĕ-ă) [Gr. *prostates*, prostate, + *algos*, pain] Prostatodynia.
- prostate** (prōs'tăt) [Gr. *prostates*] A gland, consisting of a median lobe and two lateral lobes, that surrounds the neck of the bladder and the urethra in the male. It is partly muscular and partly glandular, with ducts opening into the prostatic portion of the urethra. About 2 × 4 × 3 cm, and weighing about 20 g, it is enclosed in a fibrous capsule containing smooth muscle fibers in its inner layer. Muscle fibers also separate the glandular tissue and encircle the urethra. The gland secretes a thin, opalescent, slightly alkaline fluid that forms part of the seminal fluid.
- PATHOLOGY:** Inflammation of the prostate may occur, often the result of



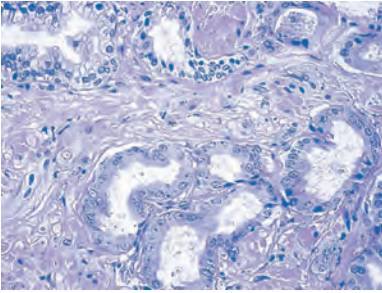
gonorrheal urethritis. Enlargement of the prostate is common, esp. after middle age. This results in urethral obstruction, impeding urination and sometimes leading to retention. Benign and malignant tumors, calculi, and nodular hyperplasia are common, particularly in men past 60. SEE: *benign prostatic hypertrophy; prostate cancer.*

**balloon dilatation of the p.** A treatment for prostatic hyperplasia.

**transrectal ultrasonography of the p.**

The use of an ultrasonic detection device placed in the rectum in order to guide biopsy of the prostate.

**prostate cancer** A malignant tumor (almost always an adenocarcinoma) of the prostate gland. Other than skin cancers, it is the most common neoplasm in men. In 2008, the American Cancer Society estimated that 186,320 American men would be diagnosed with prostate cancer and that 28,660 would die as a result. Nonetheless, 93% of those diagnosed survive at least 10 years, and 77% of men with the disease survive at least 15 years. SEE: *illus; benign prostatic hypertrophy; brachytherapy; prostatectomy.*



**PROSTATE CANCER**

**ETIOLOGY:** Although the cancer may have many causes, it is a hormone (i.e., testosterone) sensitive tumor.

**SYMPTOMS:** The disease often is asymptomatic, or it may present with symptoms similar to those of benign prostatic hypertrophy, such as difficulty urinating, urinary hesitancy, frequency, dribbling, stream reduction or interruption, and nocturia; symptoms of urinary tract infection; or in cases in which the cancer has spread to bone, localized or generalized bone pain. Prostatic cancer can spread locally or metastasize via the lymphatic system to lung, liver and brain in addition to bone.

**DIAGNOSIS:** About two thirds of those diagnosed are over age 65. Incidence is 60% higher in black men than in whites or Hispanics, and lowest in Asians. The highest mortality rate also is in black men. Other risk factors include family history, having had a vasectomy, eating

a diet high in fats and red meats and low in fruits and vegetables, and demonstrating reduced levels of vitamins D & E, lycopene and selenium.

**PATIENT CARE:** Most professional medical societies recommend that men over the age of 50 or men with a strong family history of the disease discuss prostate cancer screening with their primary care providers. The available options include blood tests to assess levels of prostate specific antigen (PSA), digital rectal examination (DRE), or assessment of the gland with ultrasonography. Mass screening for prostate cancer is not recommended by any major professional group because it may result in false-positive diagnosis, unnecessary or complicated treatments, or unnecessary anxiety. However, those men at high risk (including black men) should begin annual testing at 45. Screening should begin at 40 for men at highest risk (several first-degree relatives having prostate cancer at early ages).

When prostate cancer is suggested by screening tests, biopsies are required to confirm the diagnosis, usually employing guided imagery via transrectal ultrasound. Further studies may include MRIs, CTs and bone scans to see if the disease has spread. Once diagnosed, prostate cancer is differentiated as stages 1 to 4, with the higher stages indicating more advanced or widespread disease, and is graded on the Gleason grading system from 2 to 10, with lower numbers indicating cells more closely resembling normal cells (well-differentiated) and higher number increasingly abnormal (poorly differentiated). Stage, grade, age, and overall health aid in determining treatment, although all treatment options should be explored.

Patient support and education vary with the staging of disease and the therapies to be provided. For example, in patients with early (low-grade or low stage) disease or those with limited life expectancy and significant co-morbid diseases who choose expectant care (watchful waiting) to avoid the rigors of treatment and potential adverse reactions, teaching should focus on symptoms that may require prompt intervention, and on the need to remember follow-up visits for repeat PSA and DRE – usually every 6 months. If the patient chooses external beam radiation, he is taught the most common side effects, including localized skin irritation, diarrhea, urinary urgency, frequency, hesitancy and pain, erectile dysfunction, fatigue, and bone marrow suppression. If the patient chooses brachytherapy, he is taught that the radioactive seeds will be placed in the prostate while he is under procedural sedation. Radiation precautions are needed, including following

the approved method of lost seed disposal. A condom must be used when sexual activity is resumed after 2 weeks. The most common side effects are irritation and obstruction of the urinary tract. Patients who have received brachytherapy should immediately report inability to void, rectal bleeding, rectal irritation, or diarrhea to the health care providers.

Cryosurgery eradicates malignant cells by freezing them. In this minimally invasive procedure, the patient is anesthetized and then liquid-nitrogen probes are inserted into the prostate. Complications can include erectile dysfunction, urinary incontinence, and fistula formation between the bladder and the rectum. The most effective surgical procedure to improve the potential for long-term survival is radical prostatectomy, which can be performed via laparoscopic, retroperic or perineal approach. The entire prostate, seminal vesicles, regional lymph nodes and part of the bladder neck are removed. All male patients should be taught from an early age about their risks for prostate cancer, and encouraged to have regular screening at the appropriate age.

**prostatectomy** (prōs'tā-tēk'tō-mē) [Gr. *prostates*, prostate, + *ektome*, excision] Excision of part or all of the prostate gland. The operation may be performed via a laparoscopic approach through an incision in the perineum (perineal prostatectomy), into the bladder (suprapubic prostatectomy), retropericubically, or through the urethra (transurethral prostatectomy, TURP). SEE: *Nursing Diagnoses Appendix*.

**PATIENT CARE:** *Preoperative:* To prepare the patient for surgery and postoperative recovery, the type of procedure planned and expected results are explained and informed consent is obtained.

*Postoperative:* Vital signs are monitored closely for indications of hemorrhage or shock. Any dressings and drainage tubes are managed, skin is protected from excoriation, and incisions or tube insertion wounds are inspected for signs of infection. If a suprapubic tube is present, patency and drainage are monitored; drainage fluid should be amber to pink tinged. Urinary catheter patency is monitored, and intermittent or continuous bladder irrigation is maintained as prescribed, usually via a three-channel indwelling catheter. Irrigation rate should be fast enough to limit drainage color change to amber to pink tinged, rather than red; rate should be increased if color deepens or clots appear. Volume of irrigant and amount of drainage are carefully tracked, and the former is subtracted from the latter to determine urinary

output. Medicines are administered as prescribed to reduce bladder spasms and pain. Sitz baths also may be used to relieve pain and discomfort.

When the catheter is removed, the patient should void every 2 hr, and serial urines are monitored for color, time, and amount of each voiding. Bladder ultrasound is used to assess for retained urine. Fluid intake of 2 to 3 L/day (unless restricted by cardiac or renal deficits), mainly as water, is encouraged; caffeine is avoided. The patient may experience urinary frequency temporarily and dribbling, but he can regain control of urinary function with Kegel exercises. Urine may be blood tinged for a few weeks, but any bright red bleeding and fever, chills, or other signs of infection should be reported. The patient should avoid straining at stool (stool softeners are often prescribed) and lifting objects of more than 10 lb, long automobile trips, and strenuous exercise for several weeks. Walking usually is considered acceptable exercise. Sexual intercourse should be delayed until the patient has been evaluated by the physician at the follow-up visit and has the physician's permission to begin such activity. The patient also should continue prescribed medications at least until the follow-up visit and should have an annual prostatic examination if prostate removal was partial.

**prostatic** (prōs-tāt'ik) [Gr. *prostates*, prostate] Concerning the prostate gland.

**prostatic calculus** A stone in the prostate.

**prostatic syncope** Fainting during examination of the prostate. It is a rare occurrence that usually can be avoided by examining the patient in the lateral recumbent position.

**prostatic urethra** That part of the male urethra surrounded by the prostate gland.

**prostatism** (prōs'tā-tīzm) [" + *-ismos*, condition] Any condition of the prostate gland that interferes with the flow of urine from the bladder. The condition is characterized by frequent uncomfortable urination and nocturia. Retention of urine may occur with development of uremia. Causes include benign hypertrophy, carcinoma, prostatitis, and nodular hyperplasia.

**prostatitis** (prōs'tā-tī'tīs) [" + *itis*, inflammation] Inflammation of the prostate gland, usually as a result of infection.

**acute bacterial p.** Inflammation of the prostate, commonly associated with urinary tract infections caused by enterococci, staphylococci, or gram-negative bacteria such as *Escherichia coli*. It often is caused by reflux of urine resulting from an anatomical abnormality. Pa-

tients present with fever, chills, urethral discharge, pain on urination, difficulty voiding, malaise, myalgias, and discomfort in the perineal area; the prostate is soft, swollen, and tender on examination.

The causative organism is identified through a culture of prostatic secretions and is treated with an extended course of antibiotics. Narcotics and antispasmodics may be needed to relieve pain.

**chronic bacterial p.** Inflammation of the prostate gland, marked by dull, aching pain in the perineum, usually of long duration. Although this is the most common type of chronic prostatitis, its cause is unknown. SYN: *chronic pelvic pain syndrome*.

**chronic bacterial p.** ABBR: CBP. Inflammation of the prostate caused by a long-standing bacterial infection that often develops insidiously; causative organisms include gram-negative bacteria and enterococci. Clinically, the patient may have mild to moderate low back pain, pain with urination, and perineal discomfort, or he may be asymptomatic. Patients may have a history of multiple urinary tract infections; bacteria can hide in the prostate, which resists penetration by antibiotics, and reinfect the urinary tract. Causal bacteria are identified by culture of prostatic secretions and urine. Treatment consists of ciprofloxacin or another fluoroquinolone antibiotic for 4 to 6 weeks. The long course is needed because of poor penetration into the prostate.

**prostat-**, **prostat-** [Gr. *prostrates*, prostate] Combining forms meaning prostate gland.

**prostatocystitis** (prōs'tā-tō-sīs-tī'tis) [Gr. *prostates*, prostate, + *kystis*, bladder, + *itis*, inflammation] Inflammation of the prostatic urethra involving the bladder.

**prostatocystotomy** (prōs'tā-tō-sīs-tōt'ō-mē) [" + " + *tome*, incision] Surgical incision of the prostate and bladder.

**prostatodynia** (prōs'tā-tō-dīn'ē-ā) [" + *odyne*, pain] The condition of having the symptoms and signs of prostatitis but no evidence of inflammation of the prostate, with negative urine culture. Use of antibiotics in patients with prostatodynia is unnecessary. SEE: *proctalgia fugax*; *prostatalgia*.

**prostatolith** (prōs-tāt'ō-līth) [" + *lithos*, stone] A calculus of the prostate gland.

**prostatolithotomy** (prōs-tāt'ō-lī-thōt'ō-mē) [" + " + *tome*, incision] Incision of the prostate in order to remove a calculus.

**prostatomy, prostatotomy** (prōs-tāt'ō-mē, prōs'tā-tōt'ō-mē) [" + *tome*, incision] Incision into the prostate.

**prostatomyomectomy** (prōs'tā-tō-mī'ō-mēk'tō-mē) [" + *mys*, muscle, + *ek-*

*tome*, excision] Surgical excision of a prostatic myoma.

**prostatorrhoea** (prōs'tā-tō-rē'ā) [" + *rhoia*, flow] Abnormal discharge from the prostate gland.

**prostatovesiculotomy** (prōs'tā-tō-vē-sīk'ū-lēk'tō-mē) [Gr. *prostates*, prostate, + L. *vesiculus*, a little sac, + Gr. *ektome*, excision] Removal of the prostate gland and seminal vesicles.

**prostatovesiculitis** (prōs'tā-tō-vē-sīk'ū-lī'tis) [" + " + Gr. *itis*, inflammation] Inflammation of the seminal vesicles and prostate gland.

**prosteration** (prō'stēr-nā'shūn) [Gr. *pro*, before, + *sternon*, chest] Camp-tocormia.

**prosthesis** (prōs'thē-sis) *pl.* **protheses** [Gr. *prosthesis*, an addition] **1.** Replacement of a missing part by an artificial substitute, such as an artificial extremity. **2.** An artificial organ or part, including arms, hands, joints, heart valves, teeth, and others. SEE: *Boston arm*. **3.** A device to augment performance of a natural function, such as a hearing aid.

**dental p.** A dental appliance used to restore soft and hard oral tissue. The prosthesis may be internal or external to the oral cavity. Examples include dentures, partial dentures, orthodontic retainers, obturators, fixed bridges, and removable bridges.

**PATIENT CARE:** Care should be taken to remove, maintain, and clean dental prostheses at least on a daily basis, with dental prophylaxis and examinations scheduled regularly, usually semiannually.

**expansion p.** A prosthesis that expands the lateral segment of the maxilla; used in clefts of the soft and hard palates and alveolar processes.

**externally powered p.** Any prosthesis in which a small electric motor has been incorporated for the purpose of providing force to control various functions.

**hair p.** Wig.

**maxillofacial p.** The repair and artificial replacement of the face and jaw missing because of disease or injury.

**myoelectric p.** An prosthetic device operated by battery-powered electric motors that are activated through electrodes by the myoelectric potentials provided by muscles.

**neural p.** Any device or electrode that improves function by substituting for an injured or diseased part of the nervous system.

**penile p.** A device implanted in the penis that assists it to become erect. The device is used in patients with erectile dysfunction due to such organic causes as trauma, prostatectomy, or diabetes. It is usually in the form of inflatable plastic cylinders implanted in each corpus cavernosum of the penis. These cylinders are attached to a pump embed-

ded in the scrotal pouch. A reservoir for the fluid used to fill the cylinders is implanted behind the rectus muscle. This system allows the cylinders to be filled when an erection is desired and the fluid to be drained back into the reservoir when the need for the erection has passed. In most patients, this device permits the attaining of a nearly physiological erection. SEE: *Peyronie's disease*.

**porcine valvular p.** A biological prosthesis made from the heart valve of a pig, used to replace a diseased cardiac valve.

**voice p.** A device that synthesizes the human voice. It is used in patients who have undergone laryngeal surgery.

**prosthetic control system** A mechanical system of cables and attachments that, used with a harness, permits the wearer of a prosthetic device to perform desired movements, such as grasping objects.

**prosthetic group** (prōs-thēt'ik) The non-amino acid component of a conjugated protein; usually the portion of an enzyme that is not an amino acid. SEE: *apoenzyme*; *holoenzyme*.

**prosthetics** (prōs-thēt'iks) The branch of surgery or psychiatry (physical medicine) dealing with construction, replacement, and adaptation of missing or damaged parts.

**prosthetist** (prōs-thēt'ist) **1.** A specialist in artificial dentures. **2.** A maker of artificial limbs.

**prosthotosclerokeratoplasty** (prōs'thētō-sklē'rō-kēr'ā-tō-plās'tē) The surgical procedure for replacement of diseased scleral and corneal tissue with a transparent prosthesis.

**prosthodontics** (prōs'thō-dōn'tiks) [" + *odous*, tooth] The branch of dentistry pertaining to the replacement of missing teeth or soft tissues with bridges, crowns, implants, and prostheses. Replacements may be fixed or removable, and may repair defects within the mouth, or in maxillofacial structures.

**prosthodontist** (prōs'thō-dōn'tist) A dentist who specializes in the mechanics of making and fitting artificial teeth, dental appliances, and other prostheses that replace structures of the maxillofacial region.

**prosthokeratoplasty** (prōs'thō-kēr'ā-tō-plās'tē) [" + *keras*, horn, + *plassein*, to form] Surgical replacement of diseased or scarred corneal tissue with a transparent prosthesis.

**prostitution** (prōs'ti-tū'shūn) [L. *prostituere*, to prostitute] The act of exchanging sexual favors for money. It is a risk factor for the spread of sexually transmitted diseases, including chlamydia, gonorrhea, trichomoniasis, syphilis, hepatitis, and acquired immunodeficiency syndrome.

**prostrate** (prōs'trāt) [Gr. *pro*, before, +

L. *sternere*, stretch out] **1.** Lying with the body extended, usually face down. **2.** To deprive of strength or to exhaust.

**prostrated** (prōs-trā-tēd) Depleted of strength; exhausted.

**prostration** (prōs-trā'shūn) Absolute exhaustion.

**heat p.** Exhaustion resulting from exposure to excessive heat.

**protactinium** (prō'tāk-tin'ē-ūm) SYMB: Pa. A radioactive element; atomic weight 231; atomic number 91.

**protal** (prō'tāl) [Gr. *protos*, first] Congenital.

**protanope** (prō'tā-nōp) [Gr. *protos*, first, + *an-*, not, + *opsis*, vision] A person with protanopia.

**protanopia** (prō-tān-ō'pē-ā) [" + " + *opsis*, vision] Red blindness; color blindness in which there is a defect in the perception of red. SEE: *color blindness*.

**protean** (prō'tē-ān) [Gr. *Proteus*, a god who could change his form] Having the ability to change form, as the ameba; variable.

**protease inhibitor** (prō'tē-āz) **1.** A substance that inhibits the action of enzymes. **2.** One of a class of medications that prevent immature virions of the human immunodeficiency virus from assembling into structures capable of replication.

**proteases** (prō'tē-ās-ēs) [Gr. *protos*, first, + *-ase*, enzyme] A class of enzymes that break down, or hydrolyze, the peptide bonds that join the amino acids in a protein. The protein is broken down into its basic building blocks (i.e., amino acids). SEE: *digestion*.

**proteasome, proteosome** (prō'tē-ās-sōm) An enzymatic (protease) cell organelle that degrades misfolded or damaged proteins and modulates the quantity of regulatory proteins in the cell. The breakdown of proteins by proteasomes (proteolysis) is triggered when damaged proteins are tagged by ubiquitin.

**protected health information** ABBR: PHI. According to the Health Insurance Portability and Accountability Act (HIPAA), information in a health care record that "relates to the past, present, or future physical or mental health or condition of an individual; the provision of health care to an individual; or the past, present, or future payment for the provision of health care to an individual." PHI, esp. the recording and transmission of health information, must be held in strict confidence by health care agencies and professionals.

**protection, ineffective** The state in which an individual experiences a decrease in the ability to guard the self from internal or external threats such as illness or injury. SEE: *Nursing Diagnoses Appendix*.

**Protection and Advocacy for Individuals with Mental Illness** ABBR: PAIMI. In the U.S., programs administered by every state and territory, protecting patients with mental illness from abuse, neglect, or infringements of their rights.

**protection motivation theory** ABBR: PMT. A model used to explain health-seeking or avoidance behaviors which suggest that a person makes health-related choices based on the perception of risks and self-efficacy or his or her vulnerability to illness and capacity to take effective action to avoid harm.

**protective** (prō-tēk'tiv) [L. *protectus*, shielding] 1. Covering, preventing infection, providing immunity. 2. Dressing.

**protegrin** (prō'tē-grin) Any of a class of cysteine-rich compounds, derived from mammalian peptides, that protect animals from a broad range of infections, including oral and periodontal diseases.

**protein** (prō'tēn, prō'tē-in) [Gr. *protos*, first] One of a class of complex nitrogenous compounds that are synthesized by all living organisms and yield amino acids when hydrolyzed. Proteins in the diet provide the amino acids necessary for the growth and repair of animal tissue.

**COMPOSITION:** All amino acids contain carbon, hydrogen, oxygen, and nitrogen; some also contain sulfur. About 20 different amino acids make up human proteins, which may contain other minerals such as iron or copper. A protein consists of from 50 to thousands of amino acids arranged in a very specific sequence. The essential amino acids are those the liver cannot synthesize (tryptophan, lysine, methionine, valine, leucine, isoleucine, phenylalanine, threonine, arginine, and histidine); they are essential in the diet, and a protein containing all of them is called a complete protein. An incomplete protein lacks one or more of the essential amino acids. The nonessential amino acids are synthesized by the liver.

**SOURCES:** Milk, eggs, cheese, meat, fish, and some vegetables such as soybeans are the best sources. Proteins are found in both vegetable and animal sources of food. Many incomplete proteins are found in vegetables; they contain some of the essential amino acids. A vegetarian diet can make up for this by combining vegetable groups that complement each other in their basic amino acid groups. This provides the body with complete protein.

Principal animal proteins are lactalbumin and lactoglobulin in milk; ovalbumin and ovoglobulin in eggs; serum albumin in serum; myosin and actin in striated muscle tissue; fibrinogen in blood; serum globulin in serum; thyroglobulin in thyroid; globin in blood; thy-

mus histones in thymus; collagen and gelatin in connective tissue; collagen and elastin in connective tissue; and keratin in the epidermis. Chondroprotein is found in tendons and cartilage; mucin and mucoids are found in various secreting glands and animal mucilaginous substances; caseinogen in milk; vitellin in egg yolk; hemoglobin in red blood cells; and lecithoprotein in the blood, brain, and bile.

**FUNCTION:** Ingested proteins are a source of amino acids needed to synthesize the body's own proteins, which are essential for the growth of new tissue or the repair of damaged tissue; proteins are part of all cell membranes. Excess amino acids in the diet may be changed to simple carbohydrates and oxidized to produce adenosine triphosphate and heat; 1 g supplies 4 kcal of heat.

Infants and children require from 2 to 2.2 g of dietary protein per kilogram of body weight each day for normal health and development. The World Health Organization recommends that healthy adults consume about 0.8 g of protein per kg of body weight daily. The calculation should be made on the basis of ideal body weight rather than the actual weight of the adult or child. High levels of exercise, menstruation, pregnancy, lactation, and convalescence from severe illness require increased protein intake. Excess protein in the diet results in increased nitrogen excretion in the urine.

**activator p.** A protein that stimulates the expression of a gene.

**acute phase p.** Any of the plasma proteins whose concentration increases or decreases by at least 25% during inflammation. Acute-phase proteins include C-reactive protein, several complement and coagulation factors, transport proteins, amyloid, and anti-protease enzymes. They help mediate both positive and negative effects of acute and chronic inflammation, including chemotaxis, phagocytosis, protection against oxygen radicals, and tissue repair. In clinical medicine, the erythrocyte sedimentation rate or serum C-reactive protein level sometimes is used as a marker of increased amounts of acute-phase proteins. SYN: *acute phase reactant*. SEE: *inflammation*.

**adapter p.** An intracellular molecule that undergoes structural and functional changes in response to binding of cell membrane receptors by ligands. Adapter proteins participate in the immune response by acting as a bridge for enzymes in the signaling pathway needed to activate lymphocytes and initiate a response to an antigen.

**amyloid precursor p.** ABBR: APP. An integral membrane protein concentrated at neuron synapses that is



cleaved biochemically into components, one of which is the Alzheimer's disease-associated beta amyloid. Mutations in the gene for APP on chromosome 21 account for less than 5% of early-onset familial Alzheimer's disease.

**Bence Jones p.** SEE: *Bence Jones protein*.

**blood p.** A broad term encompassing numerous proteins, including hemoglobin, albumin, globulins, the acute-phase reactants, transporter molecules, and many others. Normal values are hemoglobin, 13 to 18 g/dl in men and 12 to 16 g/dl in women; albumin, 3.5 to 5.0 g/dl of serum; globulin, 2.3 to 3.5 g/dl of serum. The amount of albumin in relation to the amount of globulin is referred to as the albumin-globulin (A/G) ratio, which is normally 1.5:1 to 2.5:1.

**p. C** SEE: *protein C*.

**carrier p.** 1. A protein that elicits an immune response when coupled with a hapten. 2. A membrane protein for facilitated diffusion of a specific substance into a cell.

**CHK2 p., CHEK2 p.** An abbreviation for a "checkpoint kinase" protein that stimulates cells to multiply and is found in excessive amounts in several cancers, including cancers of blood, breast, stomach, and vulva.

**coagulated p.** One of the derived (insoluble) proteins resulting from the action of alcohol, heat, or other physicochemical entities on protein solutions.

**complement S p.** Vitronectin.

**complete p.** A protein containing all the essential amino acids.

**conjugated p.** A protein that is chemically linked with a nonprotein molecule. Included are chromoproteins (e.g., hemoglobin); glycoproteins (e.g., mucin); lecithoproteins, nucleoproteins, and phosphoproteins (e.g., casein).

**denatured p.** A protein in which the amino acid composition and stereochemical structure (shape) have been altered by physical or chemical means. SEE: *coagulated p.*

**derived p.** A protein altered chemically or physically.

**G p.** A cellular protein activated by the binding of an intercellular signal to its receptor on the cell membrane; the G-protein then activates the enzyme adenylyl cyclase within the cell, triggering the formation of cyclic AMP and a stereotyped response.

**heat shock p.** Any of a large group of proteins that protect cells from injury caused by increased temperatures or other physical stresses. SYN: *stress response protein*.

**high-mobility-group box chromosomal p. 1** ABBR: HMGB1. A component of chromatin, released as a cytokine in the systemic inflammatory response of sepsis.

**immune p.** An antibody or immunoglobulin produced by plasma cells that identifies foreign antigens and initiates their destruction.

**incomplete p.** A protein lacking one or more of the essential amino acids. SEE: *amino acid, essential*.

**lipopolysaccharide-binding p.** One of many acute-phase proteins released into the serum in patients with a gram-negative bacterial infection; it helps to defend the body against sepsis by binding and transferring bacterial endotoxin.

**M p.** A protein in the cell wall of group A streptococci that helps to inhibit the ingestion of bacteria by polymorphonuclear white blood cells. Some of the more than 80 identified M proteins have been linked to poststreptococcal acute rheumatic fever. Others have been linked to poststreptococcal acute glomerulonephritis.

**membrane-bound p.** A protein that is part of a cell membrane and acts as a receptor for substances transported in extracellular fluid or as an agent that mediates the transport of chemicals into or out of the cell.

**native p.** A protein in its natural state; one that has not been denatured.

**oncofetal p.** Oncofetal antigen.

**plasma p.** A protein present in blood plasma, such as albumin or globulin.

**pregnancy-associated plasma p. A** ABBR: PAPP-A. A plasma protein that is used as a screening test between 8 and 14 weeks gestation; diminished levels of the protein suggest an increased risk for Down syndrome, intrauterine growth retardation, preeclampsia, and stillbirth.

**p. S** A vitamin-K dependent protein that acts with protein C to prevent blood clotting. Deficiencies may lead to venous thrombosis and pulmonary embolism. SEE: *protein C*.

**serum p.** Any protein in the blood serum. The two main fractions are albumin and the globulins. Serum protein forms weak acids mixed with alkali salts; this increases the buffer effects of the blood but to a lesser extent than does cellular protein.

**simple p.** Any of the proteins that produce alpha amino acids on hydrolysis (e.g., albumins, albuminoids, globulins, glutelins, histones, prolamines, and protamines).

**soy p.** A type of vegetable protein found in food products derived from soybeans. Soy-based foods also contain fiber, flavones, phytoestrogens, and other potentially beneficial components. SEE: *soy milk; tofu*.

**steroidogenic acute regulatory p.** ABBR: StAR protein. A protein found within cells of the adrenal glands and gonads that stimulates the conversion

of cholesterol into sex hormones, corticosteroids, and mineralocorticoids.

**stress response p.** Heat shock protein.

**proteinaceous** (prō'tē-în-ā'shūs) Concerning, derived from, or resembling proteins.

**proteinase** (prō'tē-în-ās) [Gr. *protos*, first, + *lase*, enzyme] A proteolytic enzyme; an enzyme that catalyzes the breakdown of native proteins.

**protein balance** Equilibrium between protein intake and anabolism, and protein catabolism and elimination of nitrogenous products. SEE: *nitrogen equilibrium*.

**protein C** A plasma protein that inhibits coagulation factors V and XIII, preventing excessive clotting. Deficiency of this protein or resistance to its effects may lead to deep venous thrombosis and pulmonary embolism. SEE: *protein S*.

**protein-calorie malnutrition** Malnutrition usually seen in infants and young children whose diets are deficient in both proteins and calories. Clinically the condition may be precipitated by other factors such as infection or intestinal parasites. SEE: *kwashiorkor*.

**protein catabolic rate** ABBR: PCR. In patients receiving hemodialysis, the quantity of urea that appears in the blood between two dialysis sessions—a function of the amino acid content of the patient's diet.

**protein chip** A tool for evaluating very large numbers of proteins (e.g., the entire proteome of an organism) using DNA microarray technology. Uses include the evaluation of interactions between proteins and other molecules; the development of new drugs; and the diagnosis of diseases, such as immunological disorders, in which small concentrations of abnormal proteins or antigens occur in body fluids.

**protein correlation profiling** Protein profiling.

**protein equivalent of nitrogen appearance** ABBR: PNA. Protein catabolic rate.

**protein hydrolysate injection** A sterile solution of amino acids and short-chain peptides. They represent the approximate nutritive equivalent of casein, lactalbumin, plasma, fibrin, or other suitable proteins from which the hydrolysate is derived by acid, enzymatic, or other method of hydrolysis. It may contain dextrose or other carbohydrates suitable for intravenous infusion. It is used intravenously in the treatment of hypoproteinemia in patients who are unable to eat or absorb food.

**protein kinase** An enzyme that activates or inactivates cell proteins or enzymes by adding a phosphate moiety, thereby changing cell functions.

**protein-losing enteropathy** The abnor-

mal loss of protein into the gastrointestinal (GI) tract or a failure of the GI tract to absorb consumed proteins. It may be caused by a wide variety of diseases and conditions, including inflammatory bowel disease, lymphoma, and right-sided heart failure.

**proteinogenus** (prō'tē-în-ōj'ën-ūs) [r + *gennan*, to produce] Developing from a protein.

**proteinosis** (prō'tē-în-ō'sīs) [r + *osis*, condition] Accumulation of excess proteins in the tissues.

**alveolar p.** Pulmonary alveolar proteinosis.

**lipoid p.** A rare autosomal recessive condition resulting from an undefined metabolic defect. Yellow deposits of a mixture of protein and lipid occur, esp. on the mucous surface of the mouth and tongue. Nodules may appear on the face, extremities, and epiglottis and vocal cords, the latter producing hoarseness.

**pulmonary alveolar p.** A disease of unknown cause in which eosinophilic material is deposited in the alveoli. The principal symptom is dyspnea. Death from pulmonary insufficiency may occur, but complete recovery has been observed. There is no specific treatment, but general supportive measures including antibiotics and bronchopulmonary lavage have helped. In about 25% of cases, the disease clears spontaneously, but in most untreated cases the disease is progressive and leads to respiratory failure. SYN: *alveolar proteinosis*. SEE: *bronchoalveolar lavage*.

**protein profiling** The detection of the character and quantity of specific sets of proteins in blood samples. Protein profiling has been used as a means of diagnosing specific illnesses, esp. cancers or infectious diseases known to release unique protein patterns into serum. Protein profiling may be used as a means of screening for cancer recurrence in previously treated patients or in patients with multiple risk factors for an illness. It may also aid in the crafting of therapies, e.g., by demonstrating that a particular disease is susceptible to a specific drug therapy. SYN: *protein correlation profiling*; *serum protein profiling*; *serum protein-expression profiling*.

**protein sparer** A substance in the diet such as carbohydrate or fat that prevents the use of protein for energy needs.

**protein targeting** Any mechanism by which proteins that have been manufactured by cells are distributed to specific cellular membranes or organelles.

**protein tyrosine phosphatase-like molecule antibodies, protein tyrosine phosphatase-like antigen** ABBR: IA-2A. Autoantibodies against protein tyrosine phosphatase antigens; they are one of a

set of specific serum markers of type 1 diabetes mellitus.

**protein tyrosine phosphatases** A family of phosphate hydrolyzing enzymes that help regulate signaling between cells. Some diseases linked to abnormalities in protein tyrosine phosphatases include allergies, asthma, diabetes mellitus, obesity, and Alzheimer's disease.

**proteinuria** (prō'tē-in-ū'rē-ā) [<sup>l</sup> + *ouron*, urine] Loss of proteins (e.g., albumin or globulins) in the urine. This finding may be transient and benign or may reflect severe underlying kidney or systemic illness. SYN: *albuminuria*; *hyperproteinuria*. SEE: *microalbuminuria*; *nephrotic syndrome*.

**PATIENT CARE:** Normally, the glomerular membrane allows only low molecular weight proteins to enter the filtrate, and then most of this protein is reabsorbed via the renal tubules. Loss of protein in the urine is a common finding in diseases that damage the glomeruli and/or tubules of the kidneys. Common illnesses that contribute to urinary protein loss include diabetes mellitus, hypertension, kidney stones, multiple myeloma, polycystic kidney disease, and renal artery stenosis. All of these illnesses may result in progressive kidney failure. The degree of proteinuria can be measured with timed collections of all the urine a person produces (e.g., 24-hr collection with first specimen discarded and final specimen retained in a day) or by spot urine collections (i.e., by collecting a single specimen and estimating daily protein losses). The urine must not be contaminated with toilet tissue or feces. Controlling high blood pressure and hyperglycemia, taking ACE inhibitors or angiotensin receptor blockers, and limiting dietary protein intake can all have a beneficial effect on patients with urinary protein losses. Persistent proteinuria indicates renal disease resulting from increased glomerular permeability. Minimal proteinuria is more commonly associated with renal diseases that have less glomerular involvement (e.g., pyelonephritis). Moderate proteinuria occurs in various renal diseases or in diseases in which renal failure is a late complication (diabetes mellitus, heart failure). Heavy proteinuria is usually associated with nephrotic syndrome. Many therapeutic agents (e.g., amphotericin B, aminoglycosides, gold preparations, polymyxins, trimethadione) cause renal damage, resulting in proteinuria. Benign proteinuria can result from changes in body positioning. Functional proteinuria can be associated with physical exercise as well as emotional or physiologic stress and is usually transient. Unchecked proteinuria is associated with progressive kidney failure, the eventual need

for dialysis, and death from cardiovascular diseases.

**nephrotic range p.** Loss of massive amounts of protein in the urine (more than 3 g/day).

**orthostatic p.** Protein in the urine when the patient has been standing but not while reclining.

**postural p.** Protein in the urine in relation to bodily position.

**transient p.** Loss of protein into the urine that appears only briefly or occasionally (e.g., during fevers or seizures). It should be evaluated in people over 50, but in younger people it usually is benign.

**proteobacteria** (prō'tē-ō-bāk-tē'rē-ā) A diverse phylum of gram-negative bacteria, which includes many intestinal bacteria (e.g., *Escherichia coli*, *Salmonella*), the nitrogen-fixing bacteria, and the anaerobic purple bacteria.

**proteoglycans** (prō'tē-ō-glī'kāns) A family of molecules that are fundamental components of mucus and connective tissues. They are composed of sugars linked to polypeptides and are found in organs and tissues throughout the body.

**proteolipid** (prō'tē-ō-līp'īd) A lipid-protein complex that is insoluble in water. It is found principally in the brain.

**proteolysin** (prō'tē-ō-lī'sīn) [<sup>l</sup> + *lysis*, dissolution] A specific substance causing decomposition of proteins.

**proteolysis** (prō'tē-ō-lī'sīs) The hydrolysis of proteins, usually by enzyme action, into simpler substances.

**proteolytic** (prō'tē-ō-līt'īk) Hastening the hydrolysis of proteins.

**proteome** (prō'tē-ōm') All of the proteins that can be synthesized from the DNA of an organism.

**proteometabolism** (prō'tē-ō-mē-tāb'ō-līzm) [<sup>l</sup> + *metabole*, change, + *-ismos*, condition] Digestion, absorption, and assimilation of proteins.

**proteomics** (prō' tē-ōm' īks) The study of the proteins synthesized by living organisms and their impact on health and disease.

**proteopepsis** (prō'tē-ō-pēp'sīs) [<sup>l</sup> + *peptin*, to digest] The digestion of proteins.

**proteopeptic** (prō'tē-ō-pēp'tīk) [<sup>l</sup> + *peptin*, to digest] Pert. to the digestion of protein.

**proteose** (prō'tē-ōs) [Gr. *protos*, first] One of the class of intermediate products of proteolysis between protein and peptone.

**primary p.** The first products formed during proteolysis of proteins.

**secondary p.** The protein resulting from further hydrolysis of primary proteoses.

**proteosuria** (prō'tē-ōs-ū'rē-ā) [<sup>l</sup> + *ouron*, urine] Proteose in urine.

**Proteus** (prō'tē-ūs) [Gr. *Proteus*, a god who could change his form] A genus of

gram-negative, facultatively anaerobic, motile bacilli that inhabits the intestinal tract and causes protein decomposition; it is a cause of human infection, esp. of the kidneys, ureters, and bladder.

**P. mirabilis** A species abundant in nature and an occasional human pathogen (e.g., of the urinary tract).

**P. vulgaris** An essentially saprophytic species that may produce urinary tract infections.

**Protheca** A genus of algae that inhabits water and soil, lacks chlorophyll, and is a parasite, usually of skin wounds, but may become invasive in persons who are immunocompromised.

**prothetist** (prōth-ä-tist) A health care professional who helps to design, construct, and adjust artificial limbs and other body parts that assist in mobility, ambulation, and use of the extremities.

**prothrombin** (prō-thrōm'bin) A plasma protein coagulation factor synthesized by the liver (vitamin K is necessary) that is converted to thrombin by prothrombinase and thrombinase (activated factor X) in the presence of calcium ions. SEE: *coagulation factor*.

**prothrombinase** (prō-thrōm'bin-āz) An enzyme important in blood coagulation. In a reaction with activated factors X (Xa) and V (Va) in the presence of calcium and platelets, prothrombinase catalyzes the conversion of prothrombin to thrombin.

**prothrombin complex concentrate** ABBR: PCC. Plasma that contains only clotting factors II, IX, X (and low levels of factor VII). It is used clinically to reverse the effects of excessive anticoagulation with warfarin.

**prothrombin consumption test** A test for the amount of thromboplastin present in the plasma that reacts with prothrombin. This is determined by quantitating the prothrombin that remains in the serum after coagulation is complete.

**prothrombinemia** (prō-thrōm'bin-ē'mē-ä) [Gr. *pro*, before, + *thrombos*, clot, + *haima*, blood] The presence of prothrombin in the blood.

**prothrombinogenic** (prō-thrōm'bin-nō-jĕn'ik) [" + " + *gennan*, to produce] Promoting the formation of prothrombin.

**prothrombinopenia** (prō-thrōm'bin-nō-pĕ'nē-ä) [" + " + *penia*, lack] A deficiency of prothrombin in the blood. SYN: *hypoprothrombinemia*.

**prothrombin time** The time it takes for clotting to occur after thromboplastin and calcium are added to decalcified plasma. The test is used to assess levels of anticoagulation in patients taking warfarin, to determine the cause of unexplained bleeding (e.g., in patients with hemophilia), or to assess the abil-

ity of the liver to synthesize blood-clotting proteins. SEE: *international normalized ratio*.

**prothymocyte** (prō-thī'mō-sīt) A precursor cell that matures and differentiates into a functioning T cell in the thymus gland. SEE: *T cell*.

**protime** (prō'tīm') A common colloquialism for prothrombin time.

**protist** (prō'tist) Any member of the Protista kingdom.

**Protista** (prō-tis'tä) [LL., simplest organisms] In taxonomy, a kingdom of organisms that includes the protozoa, unicellular and multicellular algae, and the slime molds. The cells are eukaryotic. SEE: *Protozoa* for *illus.*; *eukaryote*; *prokaryote*.

**protistologist** (prō-tis-tōl'ō-jĭst) [" + *logos*, word, reason] One who studies the Protista, the unicellular organisms.

**protium** (prō-tĕ-ūm) Hydrogen with an atomic weight of one.

**proto-** 1. Combining form meaning *first*. 2. Prefix indicating the lowest of a series of compounds having the same elements.

**protobiology** (prō'tō-bĭ-ōl'ō-jĕ) [Gr. *protos*, first, + *bios*, life, + *logos*, word, reason] The study of microorganisms smaller than bacteria, i.e., the viruses.

**protocol** (prō'tō-kōl) [Gr. *protokollon*, first notes glued to manuscript] 1. Formal ideas, plans, or expectations concerning the actions of those involved in patient care, bench work, administration, or research. 2. In computer science, the rules or conventions governing the formats and timing of information exchange between communicating devices or processes. SEE: *algorithm*. 3. A description of the steps to be taken in an experiment or procedure.

**therapist-driven p.** A patient care plan initiated and carried out by a respiratory care practitioner with the approval of the hospital medical staff.

**treatment p.** An algorithm or recipe for managing a disease or condition.

**protodiastole** (prō'tō-dĭ-ās'tō-lĕ) [Gr. *protos*, first, + *diastole*, expansion] The first of four phases of ventricular diastole characterized by a drop in intraventricular pressure. This occurs immediately after the second heart sound.

**Protomastigida** (prō'tō-mäst-ij'ĭ-dä) [" + *mastix*, whip, + *eidōs*, form, shape] An order of flagellate protozoa. It contains several pathogenic genera including *Leishmania* and *Trypanosoma*.

**proton** (prō'tōn) [Gr. *protos*, first] A positively charged particle forming the nucleus of hydrogen and present in the nuclei of all elements, the atomic number of the element indicating the number of protons present. Its mass is 1836 times that of an electron. SEE: *atom*; *theory*, *atomic*; *electron*; *element*.

**proton pump** An enzyme located in the

parietal cell of the stomach that excretes hydrogen ions in exchange for potassium ions. The formal name of the protein pump is hydrogen/potassium adenosine triphosphate ( $H^+/K^+$ -ATPase).

**PATIENT CARE:** Gastric acids produced by the proton pump aid chemical digestion of foods. Some diseases and conditions are worsened by acid in the stomach (e.g., peptic ulcers, acid reflux disease). Drugs that inhibit the proton pump (omeprazole) used to treat these illnesses.

**protopathic** (prō-tō-pāth'ik) [*pr* + *pathos*, disease, suffering] Primitive, indiscriminating, esp. with respect to sensing and localizing pain stimuli. SEE: *sensibility*.

**protoplasia** (prō-tō-plā'zē-ā) [*pr* + *plasma*, to form] The primary formation of tissue.

**protoplasm** (prō'tō-plāzm) [*pr* + LL. *plasma*, form, mold] A watery colloid that forms the cytoplasm and nucleoplasm of cells; it is enclosed in a cell membrane that regulates exchanges of materials with the environment. It is a solution of organic (proteins, carbohydrates, lipids) and inorganic (minerals and gases) chemicals in water. SEE: *cell*; *cytoplasm*; *nucleus*. **protoplasmic** (prō-tō-plāz'mik), *adj.*

**protoplast** (prō'tō-plāst") [*pr* + *plassein*, to form] In bacteriology, the sphere remaining after gram-positive bacteria are lysed and their cell walls destroyed. Gram-negative bacteria retain a partial cell wall and are called spheroplasts.

**protoporphyrin** (prō'tō-por'fir'ē-ā) Porphyrin erythropoietica.

**protoporphyrin** (prō'tō-por'fir-rīn) A derivative of hemoglobin containing four pyrrole nuclei;  $C_{34}H_{34}N_4O_4$ . It occurs naturally and is formed from heme (ferriprotoporphyrin) by deletion of an atom of iron.

**protoporphyrinuria** (prō'tō-por'fir-rīn-ū-rē-ā) Protoporphyrin in the urine.

**protoproteose** (prō'tō-prō'tē-ōz) A primary proteose that, upon further digestion, is converted to deuteroproteose.

**protopspasm** (prō'tō-spāzm) [Gr. *protos*, first, + *spasmos*, a convulsion] A spasm beginning in one area and extending to other parts.

**prototype** (prō'tō-tīp) An original or initial model or type from which subsequent types arise.

**Protozoa** (prō-tā-zō'ā) [*pr* + *zoon*, animal] The phylum of the kingdom Protista that includes unicellular, animal-like microorganisms. Many protozoa are saprophytes that live on dead matter in water and soil. Many parasitic protozoa infect only humans without adequate immunological defenses, although a few infect immunocompetent persons. Infections are spread by the fecal-oral route,

through ingestion of food or water contaminated with cysts or spores, or by the bite of a mosquito or other insect that has previously bitten an infected person. Common protozoan infections include malaria (*Plasmodium vivax*, *P. malariae*); gastroenteritis (*Entamoeba histolytica*, *Giardia lamblia*); leishmaniasis, an inflammatory skin or visceral disease (*Leishmania* species); sleeping sickness (*Trypanosoma gambiense*); and vaginal infections (*Trichomonas vaginalis*). *Pneumocystis jiroveci*, previously classified as a protozoon, is now categorized as a fungus. Opportunistic protozoan infections caused by *Cryptosporidium parvum* and *Toxoplasma gondii* are seen in patients who are immunosuppressed by disease or drug therapy. SEE: *illius*.; table.

**protozoa** Pl. of protozoon.

**protozoicide** (prō-tō-zō'ā-sīd) [*pr* + *zoon*, animal, + L. *cidus*, kill] Destructive to, or that which kills, protozoa.

**protozoal** (prō'tō-zō'āl) Pert. to protozoa.

**protozoal disease** A disease produced by parasitic protozoa. Examples are amebic dysentery, sleeping sickness, and malaria.

**protozoan** (prō'tō-zō'ān) [*pr* + *zoon*, animal] Concerning protozoa.

**protozoology** (prō'tō-zō-ōl'ō-jē) [Gr. *protos*, first, + *zoon*, animal, + *logos*, word, reason] The branch of science dealing with the study of protozoa.

**protozoon** (prō'tō-zō'ōn") pl. **protozoa** Unicellular organism. SEE: *Protozoa*.

**protozoophage** (prō'tō-zō'ō-fāj) [*pr* + *zoon*, animal, + *phagein*, to eat] A phagocyte that ingests protozoa.

**protraction** (prō-trāk'shūn) [*pr* + L. *protractus*, dragged out] The extension forward or drawing forward of a part of the body such as the mandible.

**protraction disorder** Primary dysfunctional labor.

**protractor** (prō-trāk'tor) [L. *protractus*, dragged out] **1.** An instrument formerly used to remove foreign bodies from wounds. **2.** A muscle that draws a part forward; the opposite of retractor. **3.** Semicircular device for drawing angles.

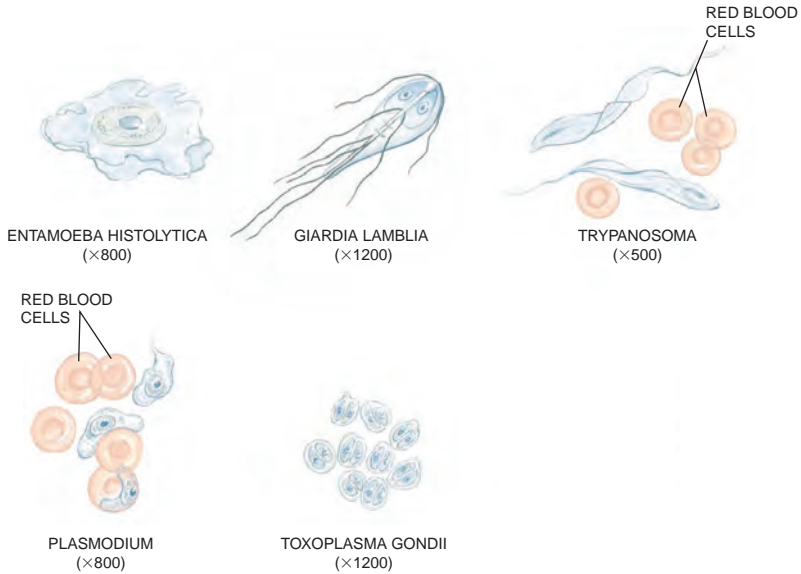
**protrude** [L. *protrudere*] To project; to extend beyond a border or limit.

**protrusion** (prō-troo'zhūn) The state or condition of being thrust forward or projecting. In dentistry, particularly related to the position of the mandible, as opposed to retrusion.

**protuberance** (prō-tū'bēr-āns) [Gr. *pro*, before, + L. *tuber*, bulge] A part that is prominent beyond a surface, like a knob.

**external occipital p.** A bony bump or elevation in the midline of the lower part of the back of the skull in the mid-





PROTOZOA

Table of Pathogenic Protozoa

Subphylum	Genus and Species	Disease Caused
Zoomastigophora (Mastigophora) Locomotion by flagella	<i>Giardia lamblia</i>	Gastroenteritis
	<i>Leishmania donovani</i>	Kala azar
	<i>Leishmania braziliensis</i>	American leishmaniasis
	<i>Leishmania tropica</i>	Oriental sore
	<i>Trichomonas vaginalis</i>	Trichomoniasis
	<i>Trypanosoma gambiense</i>	Sleeping sickness
	<i>Trypanosoma rhodesiense</i> <i>Trypanosoma cruzi</i>	Chagas' disease
Rhizopoda (Sarcodinae) Locomotion by pseudopodia	<i>Acanthamoeba castellanii</i>	Amebic meningoencephalitis
	<i>A. culbertsonii</i> <i>A. astromyxis</i>	
	<i>Dientamoeba fragilis</i>	Diarrhea, fever
	<i>Entamoeba histolytica</i>	Amebic dysentery
	<i>Naegleria fowleri</i>	Amebic meningoencephalitis
Apicomplexa (Sporozoa) No locomotion in adult stage	<i>Babesia microti</i>	Babesiosis
	<i>B. divergens</i>	
	<i>Cryptosporidium parvum</i>	Cryptosporidiosis
	<i>Cyclospora cayentanensis</i>	Diarrhea, gastroenteritis
	<i>Isospora belli</i>	Diarrhea
	<i>Microspora</i> (multiple spp.)	Diarrhea, chronic
	<i>Plasmodium malariae</i>	Quartan malaria
	<i>Plasmodium falciparum</i>	Malignant tertian malaria
	<i>Plasmodium vivax</i>	Tertian malaria
	<i>Plasmodium ovale</i>	Tertian malaria
<i>Toxoplasma gondii</i>	Toxoplasmosis	
Ciliophora Possession of cilia in some stage of life cycle	<i>Balantidium coli</i>	Balantidiasis

dle of the occipital bone. It is more prominent in males than in females.

**protuberantia** (prō-tū'ber-ān'shē-ā) A protuberance, eminence, or projection.

**proud flesh** A colloquial term for the excessive growth of granulation tissue in ulcers or in the early stages of wound healing. SEE: under *flesh*.

**Proventil** (prō'ven-tīl, prō'ven') SEE: *albuterol*.

**provider** A professional who gives health care services, or an institution that supervises the rendering of such services.

**mid-level p.** A category of health care professionals that includes physician assistants, nurse midwives, nurse anesthetists, and nurse practitioners. SYN: *mid-level practitioner*.

**nonphysician health care p.** Nonphysician provider.

**nonphysician p.** A health care professional who is licensed to provide healing services that complement or supplement those provided by a physician. Examples include midwives, nurse practitioners, optometrists, physician assistants, physical or occupational therapists, psychologists, social workers, and chiropractors. In many settings, physicians and nonphysician providers evaluate and treat the same patients. Most states limit the practice privileges and prescribing authority of nonphysician providers. SYN: *nonphysician clinician*; *nonphysician health care provider*; *nonphysician professional*.

**proving** (proo'ving) *pl.* **provings** In homeopathy, an assessment of the symptoms experienced by healthy volunteers after they are treated with a proposed remedy.

**provirus** (prō-vī'rūs) The nucleic acid of a virus that has been incorporated into the DNA of a host cell.

**provisional** (prō-vīzh'ūn-āl) [L. *provisio*, provision] Serving a temporary use pending permanent arrangements.

**provitamin** (prō-vī'tā-mīn) [L. *pro*, before, + *vita*, life, + *amine*] An inactive substance that can be transformed in the body to a corresponding active vitamin and thus function as a vitamin.

**p. A** Carotene, the precursor of vitamin A.

**provocation test** (prōv'ā-kā'shūn) A diagnostic test in which drugs, chemicals, allergens, or physical forces are systematically administered to reproduce symptoms, in order to discover the source of a symptom or the tissue origin of a lesion. Provocation tests are used by specialists in several fields of health care, such as: allergists, to determine which of several agents may produce a patient's rhinitis, wheezing, or rash; physical therapists, to identify relationships between a patient's tissue pathology or impairment and his or her func-

tional limitations; and cardiologists and neurologists, who use tilt table provocation tests to diagnose the cause of a patient's loss of consciousness.

**proximad** (prōk'sīm-ād) [L. *proximus*, next, + *ad*, toward] Toward the proximal or central point.

**proximal** (prōk'sīm-āl) Nearest the point of attachment, center of the body, or point of reference; the opposite of distal.

**proximate** (prōk'sīm-āt) Closely related with respect to space, time, or sequence; next to, or nearest.

**proximoataxia** (prōk'sī-mō-ā-tāk-sē-ā) [" + Gr. *ataxia*, lack of order] A lack of coordination in the muscles of the proximal area of an extremity, as the arm, forearm, thigh, or leg.

**proximobuccal** (prōk'sī-mō-būk'āl) [" + *bucca*, cheek] Concerning the proximal and buccal surfaces of a tooth.

**proximolabial** (prōk'sī-mō-lā'bē-āl) [" + *labialis*, pert. to the lips] Concerning the proximal and labial surfaces of a tooth.

**proximolingual** (prōk'sī-mō-līng'gwāl) [" + *lingua*, tongue] Concerning the proximal and lingual surfaces of a tooth.

**Prozac** (prō'zāk") SEE: *fluoxetine hydrochloride*.

**prozone** (prō-zōn) Portion of the low dilution range of a homologous serum that fails to agglutinate bacteria that are agglutinated by the same serum in a higher dilution.

**PrP** An abbreviation for a prion protein. SEE: *prion disease*.

**prune** (prūn) [L. *pruna*] A dried plum, rich in carbohydrate, potassium, and iron, that contains dihydroxyphenyl isatin, a laxative. Regular consumption may lead to dependence on its laxative properties.

**prune-belly defect** A nonstandard, but descriptive, term for children with congenital absence of one or more layers of abdominal muscles. SYN: *triad syndrome*.

**Prunus africana** (prūn'ūs āf'rī-kān'ūs, -kān', kahn') [L. "African plum tree"] A slow-growing African evergreen (also known as "African stinkwood") whose bark is used as a source of pygeum, an herbal remedy for benign diseases of the prostate. Massive harvesting of the tree has threatened it with extinction.

**pruriginous** (proo-rij'i-nūs) [L. *prurigo*, itch] Pert. to, or of the nature of, prurigo.

**prurigo** (proo-rī'gō) [L., the itch] A chronic skin disease of unknown etiology, marked by constantly recurring, discrete, pale, deep-seated, intensely itchy papules on extensor surfaces of limbs. Superimposed exanthematous manifestations may mask the true nature. This term is used by dermatologists throughout the world, but it has not received a universally acceptable definition. Treatment is constitutional

and local, with antipruritics given locally. Prurigo begins in childhood and may last a lifetime.

**p. agria** A severe type of prurigo that starts in childhood and persists. The skin becomes thickened and pigmented. Because of the severe itching and scratching, secondary pustules, boils, and abscesses may develop.

**p. estivalis** A form of polymorphic light eruption characterized by prurigo and photodermatitis. It recurs every summer and continues during hot weather.

**p. mitis** Mild prurigo.

**pregnancy p.** A form of prurigo that usually has its onset in the middle trimester of pregnancy or later. The lesions occur on the proximal portion of the limbs and upper part of the trunk and usually improve spontaneously before term or rapidly after delivery.

**simple acute p.** A simple form of prurigo that often recurs. It is thought to be caused by a reaction to bites in sensitive subjects.

**p. simplex** Urticaria papulosa.

**pruritogenic** (proo'ri-tō-jěn'ik) [L. *pruritus*, itching, + *gennan*, to produce] Causing pruritus.

**pruritus** (proo'ri'tūs) [L., itching] Itch; a tingling or faintly burning skin sensation that prompts a person to rub or scratch. It may be a symptom of a disease process, such as an allergic response or hyperbilirubinemia, or it may be due to emotional factors. SEE: *Nursing Diagnoses Appendix*. **pruritic**, *adj.*

**TREATMENT:** Any inciting or contributory cause should be identified and removed if possible.

**p. ani** Itching around the anus. This may be due to poor perineal hygiene; perianal skin damage caused by scratching, or abrasion due to use of harsh, dry paper; excess moisture caused by wearing tight, nonporous clothing; decreased resistance to fungi and yeasts during steroid therapy; ingestion of dietary irritants; pinworms; anal fistula or hemorrhoids; or contact with soap or detergents that remain in underclothing following improper washing.

**TREATMENT:** The primary cause should be removed or avoided. The anus should be kept scrupulously clean by use of a mild soap, and applications of drugs that produce sensitivity and irritation should be avoided.

**aquagenic p.** Pruritus produced by contact with water.

**emperor of p.** SEE: *emperor of pruritus*.

**essential p.** Pruritus without apparent skin lesion.

**p. estivalis** Pruritus with prickly heat occurring in hot weather.

**p. hiemalis** Winter itch.

**p. senilis** Pruritus in the aged with degenerative skin changes sometimes caused by loss of epidermal hydration.

**ulvar p.** Lichen sclerosis et atrophicus.

**PSA** *prostate-specific antigen*.

**psammoma** (sām-ō'mā) [Gr. *psammos*, sand, + *oma*, tumor] A small tumor of the brain, the choroid plexus, and other areas, containing calcareous particles.

**psammoma body** A laminated calcified body seen in certain types of tumors and sometimes associated with chronic inflammation.

**psammosarcoma** (sām'ō-sār-kō'mā) [" + *sarx*, flesh, + *oma*, tumor] A sarcoma in which psammoma bodies are present.

**psammous** (sām'ūs) Sandy, gritty.

**PSA response** A decrease in the level of prostate-specific antigen (PSA) of at least 50% in a patient receiving treatment for prostate cancer.

**PSDE** *painful swollen deformed extremity*.

**psellism, psellismus** (səl'izm, səl-iz'mūs) [Gr. *psellisma*, stammer] Defective pronunciation, stuttering, or stammering.

**pseudacusma** (soo'dā-kooz'mā) [Gr. *pseudes*, false, + *akousma*, a thing heard] A condition in which all sounds are heard falsely, seeming to be altered in quality of pitch, or imaginary sounds are heard. SYN: *pseudacusis*.

**pseudacusic** (soo'dā-kū'sīs) Pseudacusma.

**pseudagraphia** (soo'dā-grāf'ē-ā) [" + *a-*, not, + *graphein*, to write] A form of agraphia in which a person is unable to write independently, but is able to copy words or letters. SYN: *pseudoagraphia*.

**pseudarthrit** (soo'dār-thrī'tīs) [" + *arthron*, joint, + *itis*, inflammation] A condition that imitates arthritis.

**pseudarthrosis, pseudoarthrosis** (soo'dār-thrō'sīs, soo'dō-ār-thrō'sīs) [" + *arthron*, joint, + *osis*, condition] A false joint or abnormal articulation, as one developing after a fracture that has not united. SYN: *nearthrosis*.

**pseudesthesia** (soo'dēs-thē'zē-ā) [" + *aisthesis*, sensation] 1. An imaginary or false sensation, as that felt in the lost part after amputation. 2. A sense of feeling not caused by external stimulation. SYN: *pseudoesthesia*.

**pseudo-** (soo'dō) [Gr. *pseudes*, false] Combining form meaning *false*.

**pseudoacanthosis nigricans** (soo'dō-āk'än-thō'sīs) [" + *acantha*, thorn, + *osis*, condition] A velvety, pigmented thickening of the flexural surfaces, occurring in dark-skinned obese persons.

**pseudoagglutination** (soo'dō-ä-glū'ti-nā'shūn) The clumping together of red blood cells as in the formation of rouleaux, but differing from true aggluti-

nation in that the cells can be dispersed by shaking.

**pseudographia** (soo-dō-äg-rä-fō-bē-ä) Pseudagraphia.

**pseudoalbinism** (soo"dō-äl'bī-nīzm) [" + *L. albus*, white, + *Gr. -ismos*, condition] Loss of pigment of the skin, as occurs in leukopathia or vitiligo.

**pseudoalleles** (soo"dō-äl-lēlz') [" + *al-lelon*, of one another] A set of genes that seem to be present in the same locus in certain conditions and in closely situated loci in other conditions.

**pseudoanemia** (soo"dō-ä-nē'mē-ä) [" + *an-*, not, + *haima*, blood] Pallor of mucous membranes and skin without other signs of true anemia.

**p. of pregnancy** A drop in hematocrit during pregnancy. The increase in circulating blood volume reflects an altered ratio of serum to red blood cells; plasma volume increases by 50%, whereas the red blood cell count increases by 30%.

**pseudoaneurysm** (soo"dō-än'ū-rīzm) [" + *aneurysma*, a widening] A dilation or tortuosity in a vessel that gives the impression of an aneurysm.

**pseudoangina** (soo"dō-än'jī-nä, -än-jī'nä) [" + *L. angina*, a choking] Chest pain in patients who have healthy coronary arteries. The syndrome may be caused by esophageal, peptic, gallbladder, musculoskeletal, pulmonary, pleural, or psychogenic illnesses.

**pseudoankylosis** (soo"dō-äng'kī-lō'sīs) [" + *ankyle*, stiff joint, + *osis*, condition] A false joint.

**pseudoapoplexy** (soo"dō-äp'ō-plēk'sē) A mild condition simulating a stroke but not accompanied by cerebral hemorrhage. SYN: *parapoplexy*. SEE: *transient ischemic attack*.

**pseudoataxia** (soo"dō-ä-täk'sē-ä) [" + *ataxia*, lack of order] A condition resembling ataxia but not due to *tabes dorsalis*.

**pseudoblepsia, pseudoblepsis** (soo"dō-blēp'sē-ä, -sīs) [" + *blepsis*, sight] False or imaginary vision. SYN: *parablepsia*. SEE: *pseudopsia*.

**pseudoboutonnière deformity** (soo"dō-boo'tän-yār') SEE: under *deformity*.

**pseudocartilaginous** (soo"dō-kär'tī-lāj'ī-nūs) [" + *L. cartilago*, gristle] Pert. to, or formed of, a substance resembling cartilage.

**pseudocast** (soo"dō-käst) [" + *ME. casten*, to carry] A sediment in urine composed of epithelial cells and resembling a true cast; a false cast. Alkaline urine tends to dissolve pseudocasts.

**pseudocholesteatoma** (soo"dō-kō'lēs-tä-ät-tō'mä) [" + *chole*, bile, + *steatos*, fat, + *oma*, tumor] Hard epithelium present as a mass in the tympanic cavity in association with chronic inflammation of the middle ear.

**pseudocholinesterase** (soo"dō-kō'līn-

ēs'tēr-äs) A nonspecific cholinesterase that hydrolyzes noncholine esters as well as acetylcholine. It is found in serum and pancreatic tissue.

**pseudochorea** (soo"dō-kō-rē'ä) [" + *chorea*, dance] A somatoform disorder resembling chorea.

**pseudochromesthesia** (soo"dō-krō'mēs-thē'zē-ä) [" + *chroma*, color, + *ais-thesis*, sensation] A condition in which sounds, esp. of the vowels, seem to induce a sensation of a distinct visual color. SEE: *phonism*; *photism*; *synesthesia*.

**pseudochromidrosis** (soo"dō-krō'mīd-rō'sīs) [" + " + *hidros*, sweat, + *osis*, condition] The appearance of colored sweat, in which the sweat acquires its color after it is excreted.

**pseudocirrhosis** (soo"dō-sīr-ō'sīs) [" + " ] Any disease or condition that produces signs and symptoms that falsely suggest of cirrhosis (e.g., right-sided heart failure, constrictive pericarditis, or metastatic breast cancer).

**pseudocolloid** (soo"dō-kōl'oid) [" + *kollodes*, glutinous] A mucoid substance present in ovarian cysts and other sites.

**pseudocoloboma** (soo"dō-kōl-ō-bō'mä) [" + *koloboma*, a mutilation] A scarcely noticeable scar on the iris from an embryonic fissure.

**pseudocoma** (soo-dō-kō'mä) Locked-in syndrome.

**pseudocoxalgia** (soo"dō-kök-säl'jē-ä) [" + *L. coxa*, hip, + *Gr. algos*, pain] Legg-Calvé-Perthes disease.

**pseudocrisis** (soo-dō-krī'sīs) [" + *krisis*, turning point] A false crisis; a temporary fall of body temperature, which may be followed by a rise.

**pseudocroup** (soo-dō-kroop') False croup.

**pseudocyesis** (soo"dō-sī-ē'sīs) [" + *kyesis*, pregnancy] A condition in which a patient has nearly all of the usual signs and symptoms of pregnancy, such as enlargement of the abdomen, weight gain, cessation of menses, and morning sickness, but is not pregnant. It is usually seen in women who either are very desirous of having children or wish to avoid pregnancy. Treatment usually is done by psychiatric means. Pseudocyesis also occurs in men. SYN: *false pregnancy*; *phantom pregnancy*; *pseudopregnancy* (2).

**pseudocylindroid** (soo"dō-sī-līn'droyd) [" + *kylindros*, cylinder, + *eidōs*, form, shape] A shred of mucus in the urine that resembles a cast.

**pseudocyst** (soo"dō-sist) [" + *kystis*, bladder] A collection of fluid that becomes surrounded by a capsule, esp. a fluid collection that forms in the pancreas during some cases of pancreatitis.

**pseudodementia** (soo"dō-dē-mēn'shē-ä) [" + *L. dementare*, to make insane] An

impairment in thinking accompanied by a withdrawal from social interactions that resembles dementia but instead is the result of depression, esp. in the elderly.

**pseudodiphtheria** (soo"dō-dif-thē'rē-ā) [" + *diphthera*, membrane] A condition resembling diphtheria but not due to *Corynebacterium diphtheriae*.

**pseudoedema** (soo"dō-ē-dē'mā) [" + *oidema*, a swelling] Swelling of tissues resembling edema. It may be seen in the optic disk of the eye or in the skin.

**pseudoemphysema** (soo"dō-ēm-fi-zē'mā) [" + *emphysema*, an inflation] A bronchial condition simulating emphysema, caused by temporary blockage of the bronchi.

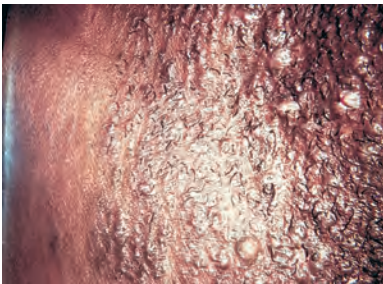
**pseudoencephalitis** (soo"dō-ēn-sēf"ā-lī'tis) [" + *enkephalos*, brain, + *itis*, inflammation] A false encephalitis due to profuse diarrhea.

**pseudoerysipelas** (soo"dō-ēr-i-sīp'ē-lās) [" + *erythros*, red, + *pella*, skin] An inflammation of subcutaneous cellular tissue simulating erysipelas.

**pseudoesthesia** (soo"dō-ēs-thē'zē-ā) [" + *aisthesis*, sensation] Pseudesthesia.

**pseudoexacerbation** (soo"dō-ēk-sās'ēr-bā'shūn, sū) [" + *exacerbation*] A temporary worsening of neurological symptoms of multiple sclerosis, brought on by fever, infection, exposure to heat, or some other transient influence that does not result in permanent neurological injury.

**pseudofolliculitis barbae** (soo-dō-fō-lik'ū-lī-tis) Inflammation of beard follicles when tightly coiled hairs become ingrown. The only sure prevention is not shaving. SEE: *illus.*



PSEUDOFOLLICULTIS BARBAE

**pseudofracture** (soo"dō-frāk'chūr) A rib-bone-like zone of decalcification seen in certain types of osteomalacia.

**pseudoganglion** (soo"dō-gān-glē-ōn) [" + *ganglion*, knot] A slight thickening of a nerve, resembling a ganglion.

**pseudogeusesthesia** (soo"dō-gūs"ēs-thē'zē-ā) [" + *geusis*, taste, + *aisthesis*, sensation] A sense of taste stimulated by one of the other senses.

**pseudogeusia** (soo"dō-gū'sē-ā) A subjec-

tive sensation of taste not produced by external stimulus.

**pseudoglioma** (soo"dō-glī-ō'mā) [" + *glia*, glue, + *oma*, tumor] Inflammatory changes occurring in the vitreous body that simulate glioma of retina but are due to iridochoroiditis.

**pseudoglobulin** (soo"dō-glōb'ū-līn) [" + *L. globulus*, little globe] One of a class of globulins characterized by being soluble in salt-free water. SEE: *euglobulin*.

**pseudogout** (soo"dō-gowt") Chronic recurrent arthritis that may be clinically similar to gout. The crystals found in synovial fluid are composed of calcium pyrophosphate dihydrate (CPPD), instead of urate (urate crystals accumulate in the synovial fluid in gout). CPPD crystals deposit in fibrocartilage (e.g., meniscus of knee, triangular fibrocartilage of wrist), and these deposits can be identified on radiographs as chondrocalcinosis. The most commonly involved joint is the knee. Multiple joints are involved in two thirds of patients. This condition is treated by joint aspiration, nonsteroidal anti-inflammatory agents, and intra-articular injection of glucocorticoids. SEE: *chondrocalcinosis*.

**pseudogynecomastia** (soo"dō-jīn'ē-kō-mās'tē-ā) [Gr. *pseudes*, false, + *gyne*, woman, + *mastos*, breast] Excess adipose tissue in the male breast but with no increase in glandular tissue.

**pseudohematuria** (soo"dō-hē'mā-tū-rē-ā) [" + *haima*, blood, + *ouron*, urine] A red pigment in the urine that makes the urine appear to have blood in it.

**pseudohemophilia** (soo"dō-hē'mō-fil'ē-ā) [" + " + *philos*, to love] Von Willebrand's disease.

**pseudohemoptysis** (soo"dō-hē-mōp'tī-sis) [" + *haima*, blood, + *ptyein*, to spit] Spitting of blood that does not arise from the bronchi or the lungs.

**pseudohermaphrodite** (soo"dō-hēr-māf'rō-dīt) An individual having the sex glands of only one sex but having some of the physical appearances of an individual of the opposite sex.

**pseudohermaphroditism** (soo"dō-hēr-māf'rō-dīt'izm) [" + *Hermaphroditos*, mythical two-sexed god, + *-ismos*, condition] A condition in which an individual has both male and female external genitalia but the internal reproductive organs of only one gender. SYN: *false hermaphroditism*. SEE: *intersex; macrogenitosomia praecox*.

**female p.** A condition in a female marked by a large clitoris, resembling the penis, and hypertrophied labia majora, resembling the scrotum, thus producing a resemblance to male genitalia. This condition can be caused by disease of the adrenal gland.

**male p.** A condition in a male marked by a small penis, perineal hypospadias, and scrotum without testes,



thereby resembling the vulva. This condition can be due to disease of the adrenal gland or a feminizing tumor of the undescended testis.

**pseudohernia** (soo'dō-hēr'nē-ă) [ʹ + *L. hernia*, rupture] Inflammation in the scrotal area resembling a hernia.

**pseudohypertension** (soo-dō-hī-pēr-těn'shŭn) The observation of elevated blood pressure when taken by conventional means (i.e., sphygmomanometer), that is in reality not elevated when compared with the actual pressure in the artery when determined by more accurate methods. Accurate blood pressure may be obtained with an intra-arterial catheter. Pseudohypertension usually is found in elderly persons, who may have arterial calcifications that interfere with blood pressure measurements obtained with a cuff. SEE: *indirect measurement of blood pressure; hypertension; infrasonic recorder*.

**pseudohypertrophy** (soo'dō-hī-pēr'trō-fē) [ʹ + *hyper*, above, + *trophe*, nourishment] The increase in size of an organ or structure owing to hypertrophy or hyperplasia of tissue other than parenchyma. It often is accompanied by diminution of function. **pseudohypertrophic** (-trō'fik), *adj.*

**pseudohypocalcemia** False hypocalcemia; that is, low serum calcium levels that result either from low albumin levels or from the administration of some magnetic resonance imaging agents containing gadolinium.

**pseudohypoparathyroidism** (soo'dō-hī'pō-pār'ă-thī'royd-izm) A group of hereditary diseases resembling hypoparathyroidism but caused by an inadequate response to parathyroid hormone rather than a deficiency of the hormone. Some of these patients are obese with short, stocky build and a moonface.

**pseudoisochromatic** (soo'dō-ī'sō-krō-măt'ik) [ʹ + *isos*, equal, + *chroma*, color] Seemingly of the same color; colors used in charts testing for color blindness.

**pseudojaundice** (soo'dō-jawn'dis) [ʹ + *Fr. jaune*, yellow] Pigment in the skin, such as in carotenemia, that resembles jaundice, but is not due to elevated serum bilirubin levels. SEE: *carotenemia*.

**pseudologia** (soo-dō-lō'jē-ă) [ʹ + *logos*, word, reason] Falsification in writing or in speech, a form of pathological lying.

**p. fantastica** Pathological lying, usually for psychological reasons rather than for personal gain. The condition is considered to be a type of factitious disorder.

**pseudomania** (soo-dō-mă'nē-ă) [ʹ + *mania*, madness] 1. A psychosis in which patients falsely accuse them-

selves of crimes that they think they have committed. 2. Pathological lying.

**pseudomasturbation** (soo'dō-măs-tŭ-bă'shŭn) [ʹ + *L. manus*, hand, + *stuprare*, to rape] Peutilomania.

**pseudomelanosis** (soo'dō-měl-ă-nō'sis) [ʹ + *melas*, black, + *osis*, condition] Discoloration of the tissues after death.

**pseudomembrane** (soo'dō-mēm'brăn) [ʹ + *L. membrana*, membrane] A leaf- or shelf-like exudate made of inflammatory debris and fibrin that may form on epithelial surfaces (e.g., in the colitis caused by *Clostridium difficile*, or the pharyngitis caused by *Corynebacterium diphtheriae*). **pseudomembranous**, *adj.*

**pseudomeningitis** (soo'dō-mĕn-in-jī'tis) [ʹ + *meninx*, membrane, + *itis*, inflammation] A condition resembling the symptoms of meningitis without the meningeal inflammation.

**pseudomenstruation** (soo'dō-mĕn'strŭ-ă'shŭn) [ʹ + *L. menstruare*, menstruate] Bleeding from the uterus not accompanied by the usual changes in the endometrium.

**p. of the newborn** Withdrawal bleeding after birth, a scant vaginal discharge that reflects the physiological response of some female infants to an exposure to high levels of maternal hormones in utero.

**pseudomnesia** (soo'dōm-nĕ-zĕ-ă) [ʹ + *mnesia*, memory] A memory disturbance in which the patient remembers that which never occurred.

**Pseudomonas** (soo-dō-mō'năs) [ʹ + *monas*, single] A genus of gram-negative, aerobic, motile bacilli with polar flagella. Most are saprophytic, living in soil and decomposing organic matter. Some produce blue and yellow pigments.

**P. aeruginosa** A species that produces a distinctive blue-green pigment, grows readily in water, and may cause life-threatening infections in humans, including nosocomial pneumonia, urinary tract infections, and sepsis. It may also cause folliculitis, malignant otitis externa, and skin infections in patients who have suffered burns.

**P. cepacia** *Burkholderia cepacia*.

**P. mallei** SEE: under *Burkholderia*.

**mucoïd P. aeruginosa** A variant of *P. aeruginosa* that resists both phagocytosis and antibiotic treatment by secreting a slimy protective coating (alginate slime). It is more virulent than nonmucoïd-secreting forms of *P. aeruginosa* and often colonizes patients with bronchiectasis or cystic fibrosis.

**P. oryzihabitans** A gram-negative rod that can cause health care-related infections, esp. in catheterized, immunosuppressed, or critically ill patients. It was formerly known as *Flavimonas oryzihabitans*.

- P. pseudomallei*** *Burkholderia pseudomallei*.
- pseudomucin** (soo-dō-mū'sīn) [" + L. *mucus*, mucus] A variety of mucin found in ovarian cysts.
- pseudomyopia** (soo'dō-mī-ō'pē-ā) [" + *myein*, to shut, + *ops*, eye] A condition in which defective vision causes persons to hold objects close in order to see them, even though myopia is not present.
- pseudomyxoma** (soo'dō-mīk-sō'mā) [" + *myxa*, mucus, + *oma*, tumor] A peritoneal tumor resembling a myxoma and containing a thick viscid fluid.
- p. peritonei*** A type of tumor that develops in the peritoneum from implantation metastases resulting from rupture of ovarian cystadenoma or cells escaping during surgical removal. Numerous papillomas develop, attached to the abdominal wall and intestine, and the peritoneal cavity becomes filled with mucus-like fluid.
- pseudoneoplasm** (soo-dō-nē'ō-plāsm) [" + *neos*, new, + LL. *plasma*, form, mold] A false or phantom tumor; a temporary swelling, usually of an inflammatory nature, that simulates a tumor.
- pseudoneuritis** (soo'dō-nū-rī'tīs) [" + *neuron*, nerve, + *itis*, inflammation] Reddening and blurring of the optic disk, which resembles optic neuritis.
- pseudoneuroma** (soo'dō-nū-rō'mā) [" + " + *oma*, tumor] A mass of interlacing, coiled fibers, cells of Schwann, and fibrous tissue forming a mass at the end of an amputation stump. Also called amputation or traumatic neuroma, this is not a true neuroma.
- Pseudo-nitzschia australis** (soo'dō-nīch'ē-ā, sū", awstrāl'īs) [NL.] A species of marine diatom that produces domoic acid, a neurotoxic amino acid. Shellfish and fish that feed on the diatom are toxic to sea mammals and humans.
- pseudonucleolus** (soo'dō-nū'klē-ōl'ūs) [" + L. *nucleus*, a nut] The false nucleolus or karyosome.
- pseudopapilledema** (soo'dō-pāp'ī-lē-dē'mā) [" + *papilla*, nipple, + *oidema*, swelling] Elevation of the optic nerve head resembling edema, caused by elevated intracranial pressure (papilledema). It may be congenital or due to optic nerve head drusen.
- pseudoparalysis** (soo'dō-pā-rāl'ī-sīs) [" + *para*, at the side, + *lyein*, to loosen] A loss of movement caused by the pain and inflammation of a localized injury, an infection, or a factitious disorder, rather than caused by a nerve injury or stroke.
- pseudoparaplegia** (soo'dō-pār-ā-plē'jē-ā) [" + " + *plege*, a stroke] A seeming paralysis of the lower extremities without impairment of the reflexes.

- pseudoparasite** (soo'dō-pār'ā-sīt) [" + " + *sitos*, food] 1. Anything resembling a parasite. 2. An organism that can live as a parasite, although it is normally not one. SEE: *parasite*, *facultative*.
- pseudophakia** The condition in which an artificial lens has been implanted in the eye, e.g., after cataract surgery to remove a cloudy lens.
- Pseudophyllidea** (soo'dō-fī-līd'ē-ā) An order belonging to the class Cestoidea, subclass Cestoda. It includes tapeworms with scolices bearing two lateral (or one terminal) sucking grooves (bothria) and includes *Diphyllobothrium latum*, the fish tapeworm of humans.
- pseudophyphae** Filamentous fungal structures that resemble hyphae.
- pseudopocket** (soo'dō-pōk'ēt) A pocket that results from gingival inflammation with edema that produces an apparent abnormal depth of the gingival sulcus without apical movement of the bottom of the sulcus; a false pocket. SEE: *gingivitis*.
- pseudopod** (soo'dō-pōd) [" + *pous*, foot] Pseudopodium (1).
- pseudopodium** (soo'dō-pō'dē-ūm) *pl.*
- pseudopodia** 1. A temporary protruding process of a protozoan or ameboid cell, such as a leukocyte, into which the cell flows, for locomotion and the engulfing of food particles or foreign substances, as in phagocytosis. SYN: *pseudopod*. 2. An irregular projection at the edge of a wheal.
- pseudopolyp** (soo'dō-pōl'ip) [" + *polys*, many, + *pous*, foot] A hypertrophied area of mucous membrane resembling a polyp.
- pseudopolyposis** (soo'dō-pōl'ī-pō'sīs) [" + " + " + *osis*, condition] A large number of pseudopolyps in the colon due to chronic inflammation.
- pseudopregnancy** (soo'dō-prēg'nān-sē) [Gr. *pseudēs*, false, + L. *praegnans*, with child] 1. A condition in animals following sterile matings in which anatomical and physiological changes occur, similar to those of pregnancy. 2. Pseudocyesis.
- pseudo-pseudohypoparathyroidism** (soo'dō-soo'dō-hī'pō-pār'ā-thī'royd-izm) [" + *pseudēs*, false, + *hypo*, under, + *para*, beside, + *thyreos*, shield, + *eidos*, form, shape + *-ismos*, condition] Pseudohypoparathyroidism in which most of the clinical but none of the biochemical changes are present.
- pseudopsia** (soo-dōp'sē-ā) [" + *opsis*, vision] Visual hallucinations or false perceptions. SYN: *parablepsia*.
- pseudopterygium** (soo'dō-tēr-ij'ē-ūm) [" + *pterygion*, wing] A scar on the conjunctiva of the eye that is firmly attached to the underlying tissue.
- pseudoptosis** (soo-dō-tō'sīs) [" + *pto-*

*sis*, a dropping] Apparent ptosis of the eyelid, resulting from a fold of skin or fat projecting below the edge of the eyelid.

**pseudopuberty, precocious** (soo-dō-pū'bēr-tē) Feminization of a young girl due to enhanced estrogen production, but ovulation and cyclic menstruation are absent. Estrogen-secreting tumors of the ovary are the usual cause. Treatment is removal of the tumor.

**pseudoreaction** (soo'dō-rē-āk'shūn) A false reaction; a response to injection of a test substance into the tissues owing to the presence of an allergen other than one for which the test is made.

**pseudorickets** (soo'dō-rīk'ēts) Renal rickets.

**pseudoscarlatina** (soo'dō-skār-lā-tē'nā) A septic febrile condition with a rash resembling scarlatina.

**pseudosclerosis** (soo'dō-sklē-rō'sīs) [" + *sklerosis*, a hardening] A condition with the symptoms, but without the lesions, of multiple sclerosis of the nervous system.

**pseudosmia** (soo-dōz'mē-ā) [" + *osme*, smell] An olfactory hallucination or perversion of the sense of smell.

**pseudostenosis** (soo'dō-stā-nō'sīs) Something that mimics stenosis; a condition that gives the false impression of an obstruction or narrowing, e.g., in a blood vessel, valve, or the spinal canal.

**pseudostoma** (soo-dōs'tō-mā) [" + *stoma*, mouth] An apparent opening or window between endothelial cells that have been stained.

**pseudostratified** (soo-dō-strāt'ī-fīd) [" + *L. stratificare*, to arrange in layers] Apparently composed of layers.

**pseudosyphilis** (soo'dō-sīf'ī-līs) A nonspecific condition resembling syphilis.

**pseudotabes** (soo'dō-tā'bēz) [Gr. *pseudēs*, false, + *L. tabes*, wasting away] A neural disease simulating tabes dorsalis.

**pseudotetanus** (soo'dō-tēt'ā-nūs) [" + *tetanus*, stretched] Persistent muscular contractions resembling tetanus.

**pseudotruncus arteriosus** (soo'dō-trūnk'ūs ār-tē'rē-ō'sūs) The severest form of tetralogy of Fallot.

**pseudotuberculosis** (soo'dō-tū-ber'kū-lō'sīs) [" + *L. tuberculosis*, tubercle, + *Gr. osis*, condition] A group of diseases that resemble tuberculosis but are due to an organism other than the tubercle bacillus. In humans the most common cause is *Yersinia pseudotuberculosis*, a gram-negative organism.

**pseudotumor cerebri** (soo'dō-tū'mor sēr'ē-brī) Benign intracranial hypertension. A relatively uncommon neurological condition—found in young overweight women more than other groups of the population—whose hallmarks are moderately severe headaches associated with papilledema on physical ex-

amination. Imaging studies do not reveal a mass lesion in the brain. Cerebrospinal fluid pressures are markedly elevated when measured by lumbar puncture. Treatment may include diuretics, or the surgical construction of a shunt to relieve intracranial hypertension.

Transient visual obscurations may be a symptom. Patients should be followed regularly with visual fields to monitor optic nerve function. If progressive loss of field is noted, optic nerve sheath decompression may be done.

**pseudoword** (soo'dō-wūrd") A string of letters that can be pronounced by literate people but has no meaning. The ability to read and pronounce pseudowords is impaired in people who have difficulty reading, e.g., children with dyslexia or some adults with brain damage or stroke.

**pseudoxanthoma** (soo'dō-zān-thō'mā) [" + *xanthos*, yellow, + *oma*, tumor] A condition resembling xanthoma.

**p. elasticum** An autosomal recessive disease that affects elastic tissues in cardiovascular tissues and skin. Abnormalities in the retina may result in the finding of angioid streaks on physical examination, and blindness. Arterial damage in other organs can result in ischemia. Skin lesions include yellow xanthomatoid patches and excess skin laxity.

**psi pounds per square inch.**

**psilocin** (sī'lō-sin) A hallucinogen similar to psilocybin.

**psilocybin** (sī'lō-sī'bīn) A rapidly acting visual hallucinogen derived from the mushroom *Psilocybe mexicana* and related species, sometimes used by recreational substance abusers.

**psi phenomena** (sī) Occurrences, events, or actions that have no scientific explanation (e.g., extrasensory perception, clairvoyance, precognition, psychokinesis, and telepathy). SEE: *parapsychology*.

**psittacosis** (sīt-ā-kō'sīs) [Gr. *psittakos*, parrot, + *osis*, condition] A relatively uncommon flulike illness caused by *Chlamydia psittaci*, a microbe that is transmitted to humans from infected birds. It causes an atypical pneumonia with headache, sore throat, fevers and chills, cough, anorexia, muscle aches, and other nonspecific symptoms. It is treated with tetracyclines. SYN: *ornithosis*; *parrot fever*. SEE: *Chlamydia*.

**psosas** (sō'ās) [Gr. *psoa*] One of two muscles of the loins, psaos major and psosas minor.

**psoitis** (sō-ī'tīs) [Gr. *psoa*, muscle of the loin, + *itis*, inflammation] Inflammation of the psosas muscles or of the area of the loins.

**psomophagia** (sō'mō-fā'jē-ā) [Gr. *psomos*, morsel, + *phagein*, to eat] The

habit of swallowing food without thoroughly chewing it. SEE: *fletcherism*.

**psoralen** (sŏr-ă-lĕn) One of a group of plant-derived chemicals that sensitize the skin to damage by ultraviolet light. Drugs derived from psoralens, such as methoxsalen and trioxsalen, are used to treat vitiligo, psoriasis, and cutaneous T-cell lymphoma. Side effects from the use of psoralens may include drying and chapping of the skin and an increased risk of developing skin cancer. SEE: *psoriasis*; *PVA therapy*; *vitiligo*.

**psoriasiform** (sŏ-rī-ă-sī-form) Resembling psoriasis; psoriasis-like. Applies to a rash that resembles the plaquelike erythematous lesions of psoriasis; also used in reference to joint conditions resembling those of psoriatic arthritis. SEE: *psoriasis*; *psoriatic arthritis*.

**psoriasis** (sŏ-rī-ă-sīs) [Gr., an itching] A chronic skin disorder affecting 1% to 2% of the population, in which red papules, and scaly silvery plaques with sharply defined borders appear on the body surface. The rash commonly is found on the knees, shins, elbows, umbilicus, lower back, buttocks, ears, and along the hairline. Pitting of the nails also occurs frequently. Patients complain of itching, and sometimes pain from dry, cracked, or encrusted lesions. Removal of scales usually causes fine bleeding points. Widespread shedding of scales is common, and rarely the disease becomes pustular. The severity of the disease may range from a minimal cosmetic problem to total body surface involvement. About a third of all affected patients have a family history of the disease. SEE: *illus*.



**PSORIASIS**

Although psoriasis may begin at any time of life, the most common age of onset is between 10 and 40 years. Sudden onset may occur related to human immunodeficiency virus. The condition has relapses and partial remissions, but established lesions often persist for many

months or years. Flare-ups may be related to specific systemic and environmental factors or may be unpredictable. About 5% of patients with psoriasis also develop an inflammatory arthritis (commonly affecting fingers and toes or sacroiliac joints), and patients with psoriasis have an increased rate of inflammatory bowel disease. SEE: *Nursing Diagnoses Appendix*.

**ETIOLOGY:** Although the cause of psoriasis is unknown, some evidence suggests that immune dysregulation contributes to excessive proliferation of skin. Families with psoriasis have been found to have a significantly higher-than-normal incidence of certain human leukocyte antigens. Genetic studies show that about one third of affected patients have a family history of the disease. Emotional stress, skin trauma, cold weather, infections, and some drugs may trigger attacks.

**TREATMENT:** The disease has no cure, and all treatments are palliative. Topical corticosteroids, coal tar derivatives, vitamin D<sub>3</sub> analogs (e.g., calcipotriene), retinoids (e.g., etretinate, tacarotene), ultraviolet light exposure, and saltwater immersion are among the many methods that have been used effectively to treat this condition. For severe disease, immune-modulating drugs like methotrexate or cyclosporine sometimes are used, with close monitoring to prevent side effects.



Many treatments for psoriasis carry some risk for the patient. Etretinate, for example, produces fetal abnormalities and should never be used by women of childbearing age. Phototherapy with ultraviolet light increases the risk of developing many types of skin cancer. Patients receiving PUVA treatment (administration of psoralens combined with exposure to high-intensity UVA) must wear goggles during treatments, stay out of the sun on treatment days and protect their eyes with UVA-screening sunglasses for 24 hrs post-treatment. Methotrexate use requires regular monitoring of liver function, renal function, complete blood counts, and lung function.

**PATIENT CARE:** The nurse teaches the patient about the prescribed therapy, to soften and remove scales, to relieve pruritus, to reduce pain and discomfort, to retard rapid cell proliferation, and to help induce remission and monitors for adverse reactions. Assistance is provided to help the patient gain confidence in managing these largely palliative treatments, many of which require special instructions for application and removal. The patient should protect against and minimize trauma.



The patient's ability to manage therapies and their results are evaluated. The patient learns to identify stressors that exacerbate the condition, such as cold weather, emotional stress, and infection, and to avoid and reduce these as much as possible. If the patient smokes cigarettes, participation in a smoking cessation program is recommended. The nurse helps the young patient (aged 20 to 30) to deal with body image changes and effects on self-esteem, encourages the patient to verbalize feelings, and supports the patient through loss of body image and associated grief. Psychological problems often occur. Referral for psychological counseling or cosmetic concealment therapy may be necessary. Patients and their families should be referred to the National Psoriasis Foundation and its local chapters for information and support. (800-723-9166; www.psoriasis.org)

**p. annularis** Circular or ringlike lesions of psoriasis.

**p. buccalis** Leukoplakia of the oral mucosa.

**elephantine p.** A rare but persistent psoriasis that occurs on the back, thighs, and hips in thick scaling plaques.

**guttate p.** Psoriasis characterized by small distinct lesions that generally occur over the body. The lesions appear particularly in the young after acute streptococcal infections. **SEE: illus.**



**GUTTATE PSORIASIS**

**nummular p.** The most common form of psoriasis with disks and plaques of varying sizes on the extremities and trunk. There may be a great number of lesions or a solitary lesion.



**pustular p.** Psoriasis in which small sterile pustules form, dry up, and then form a scab.

**rupioid p.** Psoriasis with hyperkeratotic lesions on the feet.

**p. universalis** Severe generalized psoriasis.

**psorophthalmia** (sō'rōf-thāl'mē-ă) [Gr.] Marginal inflammation of the eyelids with ulceration.

**psorosis** (sō'rūs) [Gr. *psoros*] Relating to, or affected with, itch.

**PSP** *phenolsulfonphthalein*.

**PSRO** *Professional Standards Review Organization*.

**PSV** *pressure support ventilation*.

**PSVT** *paroxysmal supraventricular tachycardia*. **SEE: under tachycardia**.

**psych-, psycho-** Combining forms meaning *mind, mental processes*.

**psychalgia** (sī-kāl'jē-ă) [" + *algos*, pain] 1. Pain of somatoform origin. 2. Mental distress marked by auditory and visual hallucinations, often associated with melancholia.

**psychataxia** (sī'kă-tăk'sē-ă) [" + *ataxia*, lack of order] Disordered power of concentration.

**psychoauditory** (sik-aw'dī-tor-ē) [" + *L. auditorius*, hearing] Pert. to the perception and interpretation of sounds.

**psyche** (sī'kē) [Gr. *psyche*, soul, mind] The mind and mental processes.

**psychedelic** (sī'kē-dēl'ik) [" + *delos*, manifest] Mind-altering; hallucinogenic; capable of producing an altered state of awareness or consciousness. It is said of drugs such as lysergic acid diethylamide (LSD).

**psychiatric** (sī-kē-ă'trik) [" + *iatrikos*, healing] Pert. to psychiatry.

**psychiatric technician** A technician who works under the supervision of a professional in the care of mentally ill patients in a psychiatric care facility. This person assists in carrying out the prescribed treatment plan and assigned individual and group activities with patients.

**psychiatrist** (sī-kī'ă-trīst) A physician who specializes in the study, treatment, and prevention of mental and behavioral disorders.

**psychiatry** (sī-kī'ă-trē) The branch of medicine that deals with the study, diagnosis, treatment, and prevention of mental illness.

**consultation-liaison p.** Psychiatry that addresses the needs of patients who also have active medical conditions.

**descriptive p.** A system of psychiatry concerned with readily observable external factors that influence the mental state of an individual. **SEE: dynamic p.**

**dynamic p.** The study of the origin, influence, and control of emotions. This involves investigating the factors both from within and without that alter emotions and motivation. Such analysis provides a basis for judging regression or progression.

**emergency p.** The treatment of pa-



tients suffering psychological crises, including those who are suicidal or homicidal, perpetrators or victims of child abuse, spousal abuse, or other intense mental anguish. Most of these people see a physician within hours or days of their violent or abusive act. Many physician training programs fail to prepare students for managing patients who need this emergency service.

**forensic p.** The use of psychiatry in legal matters, esp. in determining social adaptability of a person suspected of insanity; or the presence or absence of insanity, esp. at the time a person committed a crime.

**orthomolecular p.** The study of the impact of natural (e.g., mineral or vitamin) or artificial (e.g., neuroleptic agents) on mental health and mental illness.

**transcultural p.** The study, treatment, and prevention of emotional and behavioral disorders in immigrants or in members of a nondominant social group within society.

**psychic** (sī'kīk) [Gr. *psychikos*] **1.** Concerning the mind or psyche. **2.** An individual said to be endowed with supernatural powers, such as the ability to read the minds of others or to foresee coming events; one who claims to be sensitive to nonphysical forces.

**p. determinism** The theory that mental processes are determined by conscious or unconscious motives and are never irrelevant.

**p. force** Force generated apart from physical energy.

**psychoactive** (sī'kō-āk'tiv) [" + L. *actio*, action] Having an impact on thinking, mood, or behavior. The term typically is used to describe the effects of drugs or toxins.

**psychoanaleptic** (sī'kō-ān'ā-lēp'tīk) [" + *analepsis*, a taking up] Having a stimulating effect on the mind.

**psychoanalysis** (sī'kō-ā-nāl'ī-sīs) [" + *analysis*, a dissolving] A method of obtaining a detailed account of past and present mental and emotional experiences in order to make the unconscious and often irrational underpinnings of thought and behavior available to the conscious mind. The theory of psychoanalysis, first elaborated by Sigmund Freud, is that repressed thoughts and feelings have undesirable effects on behavior and personality, often eccentrically shaping, or establishing unwanted boundaries on conscious life. By making patients aware of their existence, origin, and inappropriate expression in emotions and behavior, the analyst aims to enhance human life and experience. The term "psychoanalysis" is often used synonymously with Freudianism; but the practice has grown to include many other styles of free association by pa-

tients, and the interpretation of the nuances of the patient's speech, by the analyst.

Psychoanalysis includes a study of the ego in relationship to reality and the conflicting goals so created. This conflict is solved by repressing one component. This repressed or censored emotion-laden complex of ideas exists in the subconscious, manifesting itself in the hidden content of dreams, neuroses, and tension states. Angry outbursts, rationalization of unfair attitudes, or slips of the tongue occur because the patient is unaware of the influence of the subconscious.

Repressed material is, in Freudian analysis, sexual. The peculiar conditioning of the patient is determined chiefly by emotional experiences of earlier years. Reactions of inferiority may result in a compensatory reaction of goodness or ambition. Sublimation is the escape of creative interest on levels not socially taboo. Therefore, psychoanalysis makes an effort to bring forgotten memories into the conscious mind. The patient thus is enabled to view the occurrence in its true perspective and to minimize its harm.

In addition to the Freudian tradition, other schools of psychoanalysis include analytical psychology (Jung), psychobiology (Meyer), and individual psychology (Adler).

**psychoanalyst** (sī'kō-ān'ā-līst) [Gr. *psyche*, mind, + *analysis*, a dissolving] One who practices psychoanalysis. SYN: *analyst*(2).

**psychobiology** (sī'kō-bī-ōl'ō-jē) [" + *bios*, life, + *logos*, word, reason] **1.** The study of the biology of the psyche, including the anatomy, physiology, and pathology of the mind. **2.** A method of psychoanalysis employing distributive analysis, which includes a study of all mental and physical factors involved in an individual's growth and development.

**objective p.** Psychobiology in which special emphasis is placed on the relationship of the individual to his or her environment.

**psychocatharsis** (sī'kō-kā-thā'r'sīs) [" + *katharsis*, purification] The bringing of traumatic experiences and their affective associations into consciousness by interview, hypnosis, or, formerly, drugs such as sodium amytal. SEE: *catharsis*.

**psychochrome** (sī'kō-krōm) [" + *chroma*, color] Color impression resulting from sensory stimulation of a part other than the visual organ.

**psychochromesthesia** (sī'kō-krōm'ēs-thē-zē-ā) [" + " + *aisthesis*, sensation] Color sensation produced by the stimulus of a sense organ other than that of vision. SEE: *pseudochromesthesia*.

**psychocortical** (sī'kō-kor'tī-kāl) [l' + L. *cortex*, rind] Pert. to the cerebral cortex as the seat of sensory, motor, and psychic functions.

**psychodiagnosis** (sī'kō-dī'āg-nō'sīs) [l' + *diagnoskein*, to discern] The use of psychological tests to assist in diagnosing diseases, esp. mental illness.

**psychodiagnostics** (sī'kō-dī'āg-nōs'tīks) The use of psychological testing as an aid in diagnosing mental disorders.

**Psychodidae** (sī'kōd'ī-dē) A family of the order Diptera, characterized by minute size, long legs, and hairy bodies and wings. It includes moth flies, owl midges, and sandflies. SEE: *Phlebotomus*.

**psychodrama** (sī'kō-drām'ā) [l' + L. *drama*, drama] A form of group psychotherapy. Patients act out assigned roles and, in so doing, are able to gain insight into their own mental disturbances.

**psychodynamics** (sī'kō-dī-nām'īks) [l' + *dynamis*, power] The scientific study of mental action or force.

**psychoeducation** (sī'kō-ēj'oo-kā'shūn) A means of providing patients with psychiatric illnesses with the skills to manage their illnesses. These skills include improving adherence to treatment regimens, managing stressful events and symptom relapses, enhancing social and familial integration and unity, and decreasing the need for hospitalization.

**psychogalvanometer** (sī'kō-gāl'vā-nōm'ē-tēr) [l' + *galvanism* + Gr. *metron*, measure] A device for determining the changes in the electrical resistance of the skin in response to emotional stimuli.

**psychogenesis** (sī'kō-jēn'ē-sīs) [l' + *genesis*, generation, birth] **1.** The origin and development of mind; the formation of mental traits. **2.** Origin within the mind or psyche.

**psychogenetic** (sī'kō-jēn'ēt'īk) **1.** Originating in the mind, as a disease. **2.** Concerning formation of mental traits.

**psychogenic** (sī-kō-jēn'īk) [l' + *gennan*, to produce] **1.** Of mental origin. **2.** Concerning the development of the mind. SEE: *psychogetic*.

**psychogeriatric** (sī-kō-jēr-ē-āt'rīk) Concerning the psychiatric disorders that may affect elderly persons.

**psychogeusic** (sī'kō-gū'sīk) [l' + *geusis*, taste] Pert. to perception of taste.

**psychograph** (sī'kō-grāf) [l' + *graphain*, to write] **1.** A chart that lists personality traits. **2.** A history of the personality of an individual.

**psychokinesis** (sī'kō-kī-nē'sīs) [l' + *kinesis*, movement] **1.** Explosive or impulsive maniacal action caused by defective inhibition. **2.** In parapsychology, claimed or alleged influence exerted on a physical object by a subject without any intermediate physical energy or in-

strumentation. SEE: *paranormal*; *psi phenomena*.

**psycholagny** (sī'kō-lāg'nē) [l' + *lagnēia*, lust] Sexual excitation brought about by mental imagery; psychic or mental masturbation.

**psycholinguistics** (sī'kō-līng-gwīs'tīks) The study of linguistics as it relates to human behavior.

**psychological** (sī'kō-lōj'ī-kāl) [l' + *logos*, word, reason] Pert. to the study of the mind in all of its relationships, normal and abnormal.

**psychologist** (sī-kōl'ō-jīst) One who is trained in methods of psychological analysis, therapy, and research.

**psychology** (sī-kōl'ō-jē) [l' + *logos*, word, reason] The science dealing with mental processes, both normal and abnormal, and their effects upon behavior. There are two main approaches to the study: introspective, i.e., engaging in self-examination of one's own mental processes; and objective, studying of the minds of others.

**abnormal p.** The study of deviant behavior and the associated mental phenomena.

**analytic p.** Psychoanalysis based on the concepts of Carl Jung, de-emphasizing sexual factors in motivation and emphasizing the "collective unconscious" and "psychological types" (introvert and extrovert).

**animal p.** The study of animal behavior.

**applied p.** The application of the principles of psychology to special fields (e.g., clinical, industrial, educational, nursing, or pastoral).

**clinical p.** The branch of psychology concerned with diagnosing and treating mental disorders.

**criminal p.** The branch of psychology concerned with the behavior and therapy of those convicted of crimes.

**dynamic p.** Psychology of motivation; that which seeks the causes of mental phenomena.

**experimental p.** The study of mental acts by tests and experiments.

**genetic p.** The branch of psychology concerned with the inheritance of psychological characteristics.

**gestalt p.** Psychology that emphasizes the importance of the wholeness of psychological processes and behavior, rather than their components.

**individual p.** A system of psychological thinking developed by Alfred Adler in which an individual is regarded as having three life goals: physical security, sexual satisfaction, and social integration.

**physiological p.** Psychology that deals with the structure and function of the nervous system and other bodily organs and their relationship to behavior.

**social p.** The branch of psychology

**Psychomotor and Physical Development: Birth to 1 Year**

		Physical Development			
		Length Range		Weight Range	
		In	Cm	Lb	Kg
Birth	boys	18¼–21½	46.4–54.4	5½–9¼	2.54–4.15
	girls	17¾–20¾	45.4–52.9	5¼–8½	2.36–3.81
1 Month	boys	19¼–23	50.4–58.6	7–11¾	3.16–5.38
	girls	19¼–22½	49.2–56.9	6½–10¾	2.97–4.92
3 Months	boys	22¼–25¾	56.7–65.4	9¾–16¼	4.43–7.37
	girls	21¾–25	55.4–63.4	9¼–14¾	4.18–6.74
6 Months	boys	25–28½	63.4–72.3	13¾–20¾	6.20–9.46
	girls	24¼–27¾	61.8–70.2	12¾–19¼	5.79–8.73
9 Months	boys	26¾–30¾	68.0–77.1	16½–24	7.52–10.93
	girls	26–29½	66.1–75.0	15½–22½	7.0–10.17
12 Months	boys	28¼–32	71.7–81.2	18½–26½	8.43–11.99
	girls	27½–31¼	69.8–79.1	17¼–24¾	7.84–11.24
Psychomotor Development					
Birth through 1st Month		Ability to suck, swallow, gag, cry, and maintain eye contact with a person. Head needs to be supported. Loud noises may cause a startle reflex.			
2nd Month		May turn to either side when on their backs; will follow moving objects; able to lift head but not for a sustained period; begin to smile, frown, and turn away.			
3rd Month		Greater movement and vocal response to stimuli; notice own hands and suck on them; head steady while supported.			
4th and 5th Months		Able to lift head higher when lying on stomach; will reach for objects and may be able to encircle a bottle with both hands; may drool a lot; attempt to put all kinds of objects in mouth.			
6th–9th Month		Develop ability to grasp and pick up food; are able to pull up to a sitting position and eventually will crawl; begin to make noises that sound like words and to recognize certain words; will play peek-a-boo.			
9th–11th Month		Develop ability to handle food and to drink from a cup; may imitate sounds and say certain words; crawl by pulling body along with arms, and pull themselves to a standing position; they will point at objects and throw things; they want to feed themselves and to help with dressing and undressing; they will walk while holding a person's hand.			
12th Month		Can eat food alone and drink from a cup with assistance; able to move around easily and crawl up stairs and out of crib.			

concerned with the study of groups and their influence on the individual's actions and mental processes.

**psychometrician** (sī'kō-mě-trīsh'ān) [Gr. *psyche*, mind, + *metron*, measure] A person skilled in the application of statistical analysis to psychological data.

**psychometric test** (sī'kō-mě'trīk) Any metric used to assess cognition, behavior, or other psychological variables.

**psychometry** (sī-kōm'ě-trē) [ψ + *metron*, measure] The measurement of psychological variables, such as intelligence, aptitude, behavior, and emotional reactions.

**psychomotor** (sī'kō-mō'tor) [ψ + L. *motor*, a mover] Concerning or causing

physical activity associated with mental processes.

**psychomotor and physical development of infant** The physical growth of an infant and the effect of mental activity on motor skills. It is important that all concerned with the care of the newborn through infancy have guidelines for comparing the growth and development of an individual with normal standards. Certain activities of infants serve as general indicators of normal psychomotor development. The average ages for certain of these activities are shown in the accompanying table. SEE: table; *arousal level*.

*Appearance and loss of certain reflexes and reactions:* The Moro reflex is

present at birth and disappears by 3 to 6 months; the stepping and placing reflexes are present at birth and are no longer obtainable by 6 weeks; the tonic neck reflex is usually present at 2 months and is gone by 6 months; neck righting appears at 4 to 6 months and is gone by 24 months; the parachute reaction is present at 9 months and persists; sucking and rooting are present at birth and are usually gone by 4 months if tested while awake and by 7 months if tested while the infant is asleep; palmar grasp is present from birth to 6 months; plantar grasp is present from birth to 10 months.

**psychomotor epilepsy** Temporal lobe epilepsy.

**psychomotor retardation** A generalized slowing of physical and mental reactions; seen frequently in depression, intoxications, and other conditions.

**psychoneuroendocrinology** (sī'kō-nū'rō-ēn'dō-krīn-ōl'ō-jē) [" + " + "] The study of hormones and their effects on the brain and on animal and human behavior.

**psychoneuroimmunology** (sī-kō-nū'rō-īm-ū-nōl'ō-jē) ABBR: PNI. The study of the relationships that exist among the central nervous system, autonomic nervous system, endocrine system, and immune system. Social scientists use the data gathered from studies as they examine the impact of psychosocial stressors and the psychophysiological stress response on the development of disease. SEE: *mind-body medicine*.

**psychoneurosis** (sī'kō-nū-rō'sīs) [" + *neuron*, *sinew*, + *osis*, condition] Neurosis.

**psychoneurotic** (sī'kō-nū-rōt'ik) [Gr. *psyche*, *mind*, + *neuron*, *sinew*] 1. Pert. to a functional disorder of mental origin. 2. A person suffering from a neurosis.

**psychopath** (sī'kō-pāth) [" + *pathos*, *disease*, *suffering*] A person who consistently and repeatedly treads on, abuses, or violates the rights of others, often causing considerable harm. SEE: *antisocial personality disorder*.

**psychopathic** (sī'kō-pāth'ik) 1. Concerning or characterized by a mental disorder. 2. Concerning the treatment of mental disorders. 3. Abnormal.

**psychopathology** (sī'kō-pāth-ōl'ō-jē) [" + *pathos*, *disease*, *suffering* + *logos*, *word*, *reason*] The study of the causes and nature of mental disease or abnormal behavior.

**psychopathy** (sī-kōp'ā-thē) Any mental disease, esp. one associated with defective character or personality. SEE: *antisocial personality disorder*.

**psychopharmacology** (sī'kō-fār'mā-kōl'ō-jē) The study and use of drugs that influence thinking, behavior, or emotion.

**psychophysical** (sī'kō-fiz'ī-kāl) [" + *physikos*, *natural*] Concerning the relationship of the physical and the mental.

**psychophysics** (sī'kō-fiz'iks) 1. The study of mental processes in relationship to physical processes. 2. The study of stimuli in relationship to the effects they produce.

**psychophysiological** (sī'kō-fiz-ē-ō-lōj'ī-kāl) Pert. to psychophysiology.

**psychophysiology** (sī'kō-fiz'ē-ōl'ō-jē) Physiology of the mind; science of the correlation of body and mind.

**psychoplegic** (sī'kō-plē'jik) [" + *plege*, *a stroke*] An agent reducing excitability of the mental processes; a sedative.

**psychoprophylactic preparation for childbirth** (sī-kō-prō-fil-āk'tik) Mental and physical training of the mother in preparation for delivery. The goals of the preparation are the dispelling of the fear of pain and the delivery of a healthy child. SEE: *natural childbirth*; *prepared childbirth*; *Lamaze technique*.

**psychoprophylaxis** (sī'kō-prō'fi-lāk'sīs) In obstetrics, a method of mental and physical preparation for natural childbirth. SEE: *natural childbirth*; *Lamaze technique*.

**psychosensory** (sī'kō-sēn'sō-rē) [" + *L. sensorius*, *organ of sensation*] 1. Understanding and interpreting sensory stimuli. 2. Concerning perceptions not arising in sensory organs, as hallucinations.

**psychosexual** (sī'kō-sēks'ū-āl) [Gr. *psyche*, *soul*, *mind*, + *L. sexus*, *sex*] Concerning the emotional components of sexual behavior.

**psychosexual development** Evolution of personality through infantile and pregenital periods to sexual maturity.

**psychosexual disorder** 1. Any disorder of sexual functioning that is not caused by a purely physical illness. 2. Sexual perversion.

**psychosine** (sī'kō-sīn', sēn") A glycosylated lipid found in the brains of patients with Krabbe's disease. It produces premature death of neurons and the clinical features of Krabbe's disease.

**psychosis** (sī-kō'sīs) *pl.* **psychoses** [" + *osis*, *condition*] A mental disorder in which there is severe loss of contact with reality, evidenced by delusions, hallucinations, disorganized speech patterns, and bizarre or catatonic behavior. Psychotic disorders are common features of schizophrenia, bipolar disorders, and some affective disorders. They can also result from substance abuse (e.g., the use of hallucinogens), substance withdrawal (e.g., delirium tremens), or side effects of some prescription drugs.

**SYMPTOMS:** In psychotic states patients may express unusual ideas (e.g., that they can read the minds of others,

send radio messages directly to God or inanimate objects, travel to distant galaxies). These ideas are called delusions. Psychosis also is marked by patient reports of hearing voices (auditory hallucinations) or seeing objects or persons not visible to others (visual hallucinations). Auditory hallucinations are hallmarks of schizophrenic and manic states, while visual hallucinations are characteristic of drug intoxication or withdrawal. Disturbances in thought content and form, perception, affect, sense of self, volition, interpersonal relationships, and psychomotor behavior occur. Thorough physical and psychiatric examinations rule out organic causes of the patient symptoms and establish the diagnosis.

**TREATMENT:** Treatment goals focus on meeting the patient's physical and psychosocial needs, and usually combine drug therapies with behavioral therapies, long-term psychotherapy, psychosocial rehabilitation, and/or vocational counseling, requiring use of community resources. Patients with psychosis are treated effectively with neuroleptic drugs (which appear to work by blocking postsynaptic dopamine receptors), such as haloperidol, risperidone, or chlorpromazine. Side effects of some of these medications include dystonic reactions and tardive dyskinesia. The newer agents produce fewer of these extrapyramidal symptoms. Treatment drugs also have sedative, anticholinergic, and orthostatic hypotension effects, and about 1% of patients taking these agents experience neuroleptic malignant syndrome (life-threatening fever, muscle rigidity, and altered level of consciousness).

**PATIENT CARE:** The psychotic patient should be treated gently and with respect. A safe environment should be maintained, with suicide precautions instituted if needed. Trusting relationships are gradually developed, while avoiding promotion of dependence. Engaging the patient in reality-oriented activities that involve human contact and employing reality-orientation is helpful. Attempts to correct delusional thinking should be avoided because delusions are resistant to logical argument, and discussion about them may be misinterpreted. Because psychotic patients behave violently on occasion, careful practitioners eschew confrontation with them, and obtain immediate help to protect the safety of all involved.

ingful experience in one society may be recognized as psychosis by another.

2. When assisting a psychotic patient, most clinicians sit close to a door, so that if they feel the need to leave the room quickly, they can do so unimpeded.

Clinicians need to be honest and dependable, and should never make promises that cannot be kept. The family needs to be involved in therapies, taught to recognize adverse drug effects and signs of relapse, as well as ways to manage patient symptoms. Patients are taught to manage their drug regimens, and advised to report any adverse reactions they experience, but not to discontinue a drug without specific direction from the primary care provider. If blood testing is required, the patient is taught when and where this monitoring will take place. If slow-release formulations are used, the patient needs to know when to return for the next dose.

**alcoholic p.** Loss of contact with reality that results from acute or chronic alcohol use. Examples are pathological intoxication, delirium tremens, Korsakoff's psychosis, and acute hallucinosis. SEE: *acute alcoholism; acute alcoholic hallucinosis; delirium tremens; intoxication; Korsakoff's syndrome.*

**depressive p.** Psychosis characterized by extreme depression, melancholia, and feelings of unworthiness.

**drug p.** Psychosis caused by intoxication.

**functional p.** A psychosis in which there is no apparent pathology of the central nervous system.

**gestational p.** Psychosis that occurs during pregnancy.

**involutional p.** Psychosis occurring during the period of bodily and intellectual decline.

**manic depressive p.** Bipolar disorder.

**organic p.** Psychosis induced by structural brain changes. Emotional instability, irritability, angry outbursts, and inattention are typical symptoms. At any time in the course of the disease, memory, comprehension, ideation, and orientation may become defective. Possible causes include alcohol, narcotics, trauma, syphilis, drugs, poisons, chronic infections, encephalitis, and brain tumors, among many others.

**postinfectious p.** A psychosis following an infectious disease such as meningitis, pneumonia, or typhoid fever.

**postpartum p.** A psychosis that develops during the 6 months following childbirth, the highest incidence being in the third to sixth day after delivery through the first month postpartum. The symptoms and signs include hallu-



1. Unfamiliar religious experiences and rituals may have all the hallmarks of psychosis when viewed by individuals from different cultures. What constitutes an especially mean-



cinations, delusions, preoccupation with death, self-mutilation, infanticide, distorted reality, and interpersonal dependency. Therapies used to treat this condition include estrogens, electroconvulsive therapies, lithium, and neuroleptic drugs. SYN: *puerperal psychosis*. SEE: *depression, postpartum*.

**puerperal p.** Postpartum p.

**situational p.** Psychosis due to excessive stress in an unbearable environmental situation.

**steroid-induced p., steroid p.** A psychosis that follows the administration of corticosteroids (e.g., prednisone or methylprednisolone) and cannot be clearly ascribed to another cause. The psychosis may remit after steroids are withheld or may respond to neuroleptic drugs or electroconvulsive therapy.

**toxic p.** Psychosis brought on by intoxication.

**traumatic p.** Psychosis or schizophrenia-like illnesses occurring in people who have suffered traumatic brain injury.

**psychosocial** (sī'kō-sō'shāl) Related to both psychological and social factors.

**psychosomatic** (sī'kō-sō-māt'ik) [Gr. *psyche*, mind, + *soma*, body] Pertaining to the relationship of the brain and body; pert. to disorders that have a physiological component but are thought to originate in the emotional state of the patient. When the term is used, the impression is created that the brain and body are separate entities and that a disease may be purely somatic in its effect or entirely emotional. This partitioning of the human being is not possible; thus no disease is limited to only the brain or the body. A complex interaction is always present even though in specific instances a disease might on superficial examination appear to involve only the body or the mind.

**psychosomatic disease** Somatoform disorder.

**psychosurgery** (sī'kō-sur'jēr-ē) [L. *chirurgia*, surgery] Surgical intervention for mental disorders, e.g., frontal lobotomy.

**psychotechnics** (sī'kō-tēk'nīks) [L. + *technē*, art] The use of psychological methods in the study of economic and social problems.

**psychotherapist** (sī'kō-thēr'ā-pīst) An individual trained or skilled in the management of psychological disorders.

**psychotherapy** (sī'kō-thēr'ā-pē) [Gr. *psyche*, mind, + *therapeia*, treatment] A method of treating disease, esp. psychic disorders, by mental rather than pharmacological means (e.g., suggestion, re-education, hypnosis, and psychoanalysis).

**psychotic** (sī-kōt'ik) Pert. to or affected by psychosis.

**psychotogenic** (sī-kōt'ō-jēn'ik) [L. +

*gennan*, to produce] Producing a psychosis, usually temporary and due to certain powerful drugs.

**psychotomimetic** (sī-kōt'ō-mī-mē'tik) [L. + *mimetikos*, imitative] Relating to or producing a state resembling psychosis.

**psycho-** Combining form meaning *cold*. SEE: also *cryo-*.

**psychoalgia** (sī'krō-āl'jē-ā) [Gr. *psychros*, cold, + *algos*, pain] A painful sensation of cold.

**psychoesthesia** (sī'krō-ēs-thē'zē-ā) [L. + *aisthesis*, sensation] A sensation of cold in a part of the body, even though it is warm.

**psychrometer** (sī'krōm'ē-tēr) [L. + *metron*, measure] A device for measuring relative humidity of the atmosphere. Calculations are made using the readings of two thermometers, one with a dry bulb and one with a wet bulb. SYN: *wet-and-dry-bulb thermometer*.

**psychrophile** (sī'krō-fil') [L. + R.] A microorganism that can thrive in exceptionally cold environments, e.g., from 0° to 10°C.

**psychrophilic** (sī-krō-fil'ik) [L. + *philēin*, to love] Preferring cold, as bacteria that thrive at low temperatures, between 0° and 30°C (32° and 86°F).

**psychophobia** (sī-krō-fō'bē-ā) [L. + *phobos*, fear] Abnormal aversion or sensitiveness to cold.

**psychophore** (sī'krō-for) [L. + *phorein*, to carry] A double-lumen catheter for applying cold to the urethra or any canal.

**psychotherapy** (sī'krō-thēr'ā-pē) [L. + *therapeia*, treatment] The treatment of disease by the use of cold.

**psyllium seed** (sil'ē-ūm) The dried ripe seed of the psyllium plant (*Plantago afra*), grown in France, Spain, and India; used as a mild laxative. It is also used in symptomatic treatment of diarrhea. It enhances stool consistency by absorbing water from the bowel contents.

**PT** *prothrombin time; physical therapist*.

**Pt** Symbol for the element platinum.

**pt** *pint; patient*.

**PTA** *plasma thromboplastin antecedent; physical therapist assistant*.

**ptarmic** (tār'mik) [Gr. *ptarmikos*, causing to sneeze] 1. Causing sneezing. 2. An agent that causes sneezing. SYN: *sternutatory*.

**ptarmus** (tar'mūs) Spasmodic sneezing.

**PTC** *percutaneous transhepatic cholangiography; phenylthiocarbamide; plasma thromboplastin component*.

**PTCA** *percutaneous transluminal coronary angioplasty*.

**pterion** (tēr-rē-ōn) [Gr. *pteron*, wing] Point of suture of frontal, parietal, temporal, and sphenoid bones.

**pternalgia** (tēr-nāl'jē-ā) [Gr. *pterna*, heel, + *algos*, pain] Pain in the heel.

**pterygium** (tēr-ij'ē-ūm) [Gr. *pterygion*,

wing] Triangular thickening of the bulbar conjunctiva extending from the inner canthus to the border of the cornea with the apex toward the pupil, probably related to chronic irritation.

**p. colli** A congenital band of fascia extending from the mastoid process of the temporal bone to the clavicle.

**progressive p.** A stage in which the growth extends toward the center of the cornea.

**pterygoid** (těr'î-goyd) [Gr. *pterygoeides*] Wing-shaped.

**p. hamulus** A small bony projection, just medial to the pterygoid process, that serves as an attachment for the tensor veli palatini muscle.

**pterygomaxillary** (těr'î-gō-māk'sî-lěr'ē) [" + L. *maxillaris*, upper jaw] Concerning the pterygoid process and upper jaw.

**pterygopalatine** (těr'î-gō-pāl'ă-tîn) [" + L. *palatinus*, palate] Relating to the pterygoid process and the palatine bone.

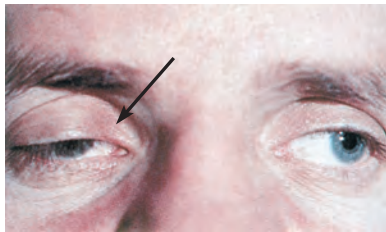
**PTFE** *polytetrafluoroethylene* (Teflon).

**PTH** *parathyroid hormone*. SEE: under *hormone*.

**ptilosis** (tî-lō'sîs) [Gr.] Loss of eyelashes.

**ptomaine** (tō'mān, tō-mān') [Gr. *ptoma*, dead body] One of a class of nitrogenous organic bases formed by the action of putrefactive bacteria on proteins and amino acids.

**ptosis** (tō'sîs) [Gr. *ptosis*, a dropping] Dropping or drooping of an organ or part, as the upper eyelid from paralysis, or the visceral organs from weakness of the abdominal muscles. SEE: *illus*. **ptotic** (tôt'îk), *adj.*; **ptosed** (töst), *adj.*



PTOSIS

**PTT** *partial thromboplastin time*.

**ptyalagogue** (tî-ăl'ă-gōg) [Gr. *ptyalon*, saliva, + *agogos*, leading] Causing, or something that causes, a flow of saliva. SYN: *sialagogue*.

**ptyalectasis** (tî'ă-lĕk'tă-sîs) [" + *ek-tasis*, dilation] Surgical dilation of a salivary duct.

**ptyalin** (tî'ă-lîn) A salivary enzyme that hydrolyzes starch and glycogen to maltose and a small amount of glucose. The optimum pH for ptyalin activity is 6.9. SYN: *amylase*, *salivary*. SEE: *enzyme*; *ptyalism*; *saliva*.

**ptyalism** (tî'ă-lîzm) [" + *-ismos*, condi-

tion] Excessive secretion of saliva. This may be due to pregnancy, stomatitis, rabies, exophthalmic goiter, menstruation, epilepsy, hysteria, nervous conditions, and gastrointestinal disorders and may be induced by mercury, iodides, pilocarpine, and other drugs. SYN: *hyperptyalism*; *hypersalivation*; *salivation*. SEE: *xerostomia*.

**ptyalith** (tî'ă-lîth) [" + *lithos*, stone] A salivary gland stone.

**ptyalocoele** (tî-ăl'ō-sĕl) [" + *kele*, tumor, swelling] A salivary cystic tumor or cystic dilatation of a salivary duct.

**ptyalogenic** (tî'ăl-ō-jĕn'îk) [Gr. *ptyalon*; saliva, + *gennan*, to produce] Of salivary origin.

**ptyalogogue** (tî'ăl'ō-gōg) [" + *agogos*, leading] An agent that causes the flow of saliva. SYN: *sialogogue*.

**ptyalography** (tî-ăl-ōg'ră-fĕ) [" + *graphein*, to write] SEE: *sialography*.

**ptyalolith** (tî'ă-lō-lîth) [" + *lithos*, stone] A salivary concretion.

**ptyalolithiasis** (tî'ă-lō-lî-thî'ă-sîs) The presence of a stone in a salivary gland or duct.

**ptyalolithotomy** (tî'ăl-ō-lî-thōt'ō-mĕ) [Gr. *ptyalon*, saliva, + *lithos*, stone, + *tome*, incision] The surgical removal of a stone from a salivary duct or gland.

**ptyaloreaction** (tî'ă-lō-rĕ-ăk'shŭn) A reaction occurring in saliva.

**ptyalorrhea** (tî'ă-lō-rĕ'ă) [" + *rhoia*, flow] An excessive flow of saliva.

**ptysis** (tî'sîs) [Gr.] Spitting; the ejection of saliva from the mouth.

**Pu** Symbol for the element plutonium.

**pubalgia** (pyū'bal-jă) Pain arising from the groin or pubic symphysis. Diagnosis is made after ruling out the presence of an inguinal hernia.

**ETIOLOGY:** Symptoms are often secondary to strain of the muscles that attach in the area (e.g., rectus abdominis, iliopsoas, adductor longus, or rectus femoris), inflammation in the urogenital system (e.g., urethritis, epididymitis), inflammation of the hip (e.g., bursitis, arthritis), or weaknesses in the abdominal wall.

**athletic p.** Musculoskeletal pain, typically arising from the pubic symphysis, lower abdominal muscles, or the inguinal region of young athletes in whom an inguinal hernia is not present.

**ETIOLOGY:** Inflammation and tears in the local muscles or abdominal wall may occur from athletic motions (e.g., kicking, jumping, and sudden change of direction) that create shear forces across the pubic symphysis or inguinal ligament.

**pubarche** (pū-băr'kĕ) [L. *puber*, grown up, + Gr. *arche*, beginning] **1.** The beginning of puberty. **2.** Beginning development of pubic hair. SEE: *semenarche*; *thelarche*.

**puber** (pū'bēr) [L., grown up] One at the onset of puberty.

**puberal** (pū'bēr-āl) [L. *pubertas*, puberty] Pubertal.

**pubertal** (pū'bēr-tāl) Pert. to puberty.

**pubertas** (pū'bēr-tās) [L.] Puberty.

**p. praecox** Precocious puberty or puberty at an early age.

**puberty** (pū'bēr-tē) The stage in life at which members of both sexes become functionally capable of reproduction. A period of rapid change occurs between the ages of 13 and 15 in boys and 9 to 16 in girls, ending in the attainment of sexual maturity. There is evidence that the onset of puberty is related to a decrease in secretion of the pineal gland.

**onset of p.** *Boys:* Between the ages of 13 and 15, a relatively rapid increase in height and weight occurs, with broadening of the shoulders and increase in size of the penis and testicles. Pubic and facial hair begin to grow. Endocrine and sebaceous gland activity is increased. Nocturnal emissions usually occur.

*Girls:* Between the ages of 9 and 16, a marked increase in growth is accompanied by breast enlargement and appearance of pubic hair. Within 1 to 2 years after these changes, underarm hair grows and the normal whitish vaginal secretion (physiological leukorrhea) characteristic of the adult female is noticed. Several months later the first menstrual period (menarche) occurs. Each individual will vary somewhat from this schedule.

**PATIENT CARE:** Before puberty, young girls should be told about menstruation and the techniques of menstrual protection through use of perineal pads or tampons. In addition, they should be told that a certain amount of intermenstrual vaginal discharge (leukorrhea) is normal but if the secretion is malodorous or causes irritation of the vulva, a health care provider should be consulted. SEE: *menstruation*.

At puberty, boys should be assured that the size of the penis is not related to the degree of masculinity and is not an important factor in experiencing or providing sexual gratification.

**precocious p.** The appearance of secondary sex characteristics before 8 years of age in girls and 9 years of age in boys. The pituitary and hypothalamic glands may be involved, or the condition may result from premature secretion of sex hormones not caused by pituitary or hypothalamic action. Gonadotropin-releasing hormone (GnRH) has been used to treat this condition.

**pubes** (pū'bēz) *sing.*, **pubis** [L., grown up] **1.** The region just above the genitalia in which pubic hair grows. **2.** An obsolete term for pubic hair.

**pubescence** (pū-bēs'ēns) [L. *pubescens*, becoming hairy] **1.** Puberty or its ap-

proach. **2.** A covering of fine, soft hairs on the body. SYN: *lanugo*. **pubescent**, *adj.*

**pubic** (pū'bīk) [L. *pubes*, pubic hair] Concerning the pubes.

**pubic hair** SEE: under hair.

**pubio-, pubo-** Combining forms meaning *pubic bone, pubic region*.

**pubiotomy** (pū-bē-ōt'ō-mē) [L. *pubes*, pubic region, + *tome*, incision] Symphyseotomy.

**pubis** (pū'bīs) *pl. pubes* [NL. (*os*) *pubis*, bone of the groin] Pubic bone.

**publication** (pūb'li-kā'shūn) [L. *publicare*, to make public] **1.** The dissemination of information in print. **2.** Any document, journal, or text distributed to a general audience or to a limited readership.

**publication bias** (pūb'li-kā'shūn) [L. *publicare*, to confiscate, make public] The tendency of professional journals to publish and report the results of research trials that show a large positive clinical effect. Studies that demonstrate no association between variables or those that show neutral effects are less likely to be published or reported.

**public comment period** The designated time during which members of a community may testify for or against any proposed administrative action affecting health or wellness.

**public health** The discipline concerned with measures that affect the health of communities. It includes the study and practice of techniques that protect communities from epidemics or toxic exposures, predict environmental disasters, and enforce the laws that provide a safe supply of water and food. In the U.S. various government agencies (e.g., the Centers for Disease Control and Prevention, Food and Drug Administration, and National Institutes of Health) are active in maintaining public health. Each of the 50 states has a health department in which at least one physician is the public health official. SEE: *table*; *preventive medicine*; *preventive nursing*.

**Public Health Service Act** One of the principal laws giving the authority for federal health activities. First enacted July 1, 1944, it provided a complete codification of all the federal public health laws. Many of the health laws since 1944 are amendments to the Public Health Service Act revising, extending, or giving new authority to the act.

**PubMed** An electronic database maintained by the U.S. National Library of Medicine that includes over 17 million citations in biomedicine, the life sciences, nursing, and allied health.

It is accessible on the web at: [www.ncbi.nlm.nih.gov/entrez/](http://www.ncbi.nlm.nih.gov/entrez/)

**pubo-** Combining form meaning *pubis*.

**pubovesical** (pū'bō-vēs'ī-kl) ["/ + *vesi-*

## Major Public Health Achievements of the 20th Century

Vaccination  
Enhanced motor vehicle safety  
Improvements in sanitation and clean water  
Discovery of antibiotics  
Risk factor modification to reduce heart attack and stroke  
Improvements in food safety and nutrition  
Maternal/child care innovations  
Family planning  
Fluoridation of drinking water  
Antismoking campaigns

SOURCE: Adapted from the Centers for Disease Control and Prevention. *MMWR* 1999;48:241-243.

*culus*, a little sac] Pert. to the os pubis and bladder.

**PUBS** *percutaneous umbilical blood sampling*.

**puenda** (pū-dēn'dā) *sing.*, **puendum** [L.] Vulva.

**puendagra** (pū'dēn-dāg'rā) [P + Gr. *agra*, seizure] Pain in the external genitals. SEE: *vulvodynia*.

**puendum** (pū-dēn'dūm) *pl.* **puenda** [L.] **1.** The external genital organs, esp. of a female. **2.** The vulva.

**puerile** (pū'ē-rīl) [L. *puerilis*] Concerning a child; childlike.

**puerilism** (pū'ēr-il-izm) [P + Gr. *-ismos*, condition] Childishness; second childhood.

**puerperal eclampsia** Convulsions occurring immediately after childbirth.

**puerperal fever** Septicemia following childbirth. SYN: *childbed fever*; *puerperal sepsis*.

**puerperalism** (pū-ēr'pēr-āl-izm) [L. *puer*, child, + *parere*, to bring forth, to bear, + Gr. *-ismos*, condition] A pathological condition accompanying childbirth.

**puerperal period** (pū-ūr'pēr-āl) [NL *puerperalis*, relating to childbirth] The interval of time from the birth of a child to approx. 6 weeks later, at which time complete involution of the uterus has occurred.

**puerperant** (pū-ēr'pēr-ānt) A woman in labor, or one who has recently given birth.

**puerperium** (pū'ēr-pēr-ēm) [L.] The period of 42 days following childbirth and expulsion of the placenta and membranes. The generative organs usually return to normal during this time. SEE: *postpartum*. **puerperal**, *adj.*

**Puestow procedure** (pūs'tow, tō) A lateral side-to-side pancreaticojejunostomy in Roux-en-Y configuration used to relieve pain in patients with chronic pancreatitis. The pancreatic duct, which may be obstructed in chronic pancrea-

titis, is opened and attached to the small intestine.

**PUFA** *polyunsaturated fatty acids*. SEE: *fatty acid*.

**puff** A soft, short, blowing sound heard on auscultation.

**Pulex** (pū'lēks) [L., flea] A genus of fleas belonging to the order Siphonaptera.

***P. irritans*** The human flea, which also infests dogs, hogs, and other mammals. It is an intermediate host of the tapeworms *Dipylidium caninum* and *Hymenolepis diminuta*. SEE: *flea*.

**pulicatio** (pū'li-kā'tē-ō) Infestation with fleas.

**Pulicidae** (pū-lis'ī-dē) A family of fleas belonging to the order Siphonaptera. Pulicidae includes the genera *Pulex*, *Echidnophaga*, *Ctenocephalides*, and *Xenopsylla*. SEE: *flea*.

**pulicide** (pū'li-sid) [L. *pulex*, flea, + *caedere*, to kill] An agent that kills fleas.

**pull** A colloquial term for a muscle strain.

**pullulate** (pūl'ū-lāt) [L. *pullulare*, to sprout] To bud or germinate.

**pullulation** (pūl'ū-lā'shūn) The act of budding or germinating, as seen in yeast.

**pulmo-** (pūl'mō-, pool'mō-) Combining form meaning *lung*.

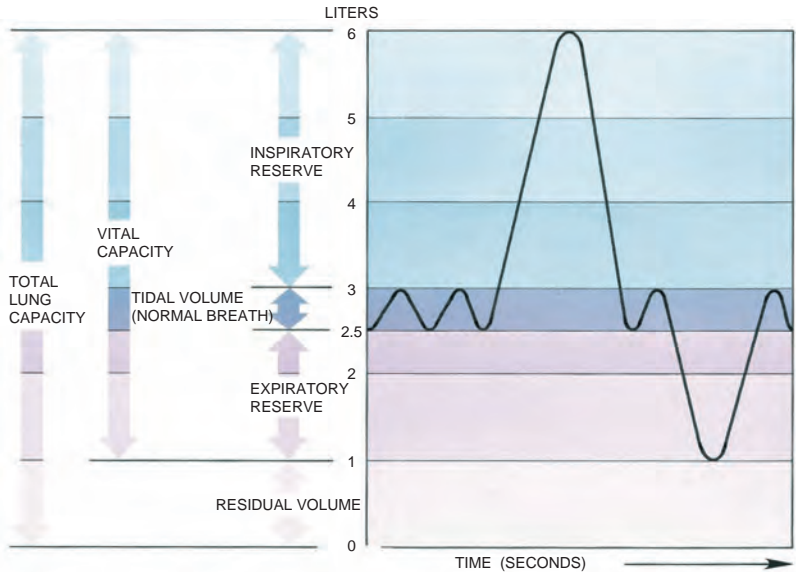
**pulmoaortic** (pūl'mō-ā-or'tik) [L. *pulmo*, lung, + Gr. *aorte*, aorta] **1.** Concerning the lungs and the aorta. **2.** Relating to the pulmonary artery and aorta.

**pulmometry** (pūl-mōm'ē-trē) Determination of capacity of the lungs.

**pulmonary** (pūl'mō-nē-rē) [L. *pulmonarius*] Concerning or involving the lungs.

**pulmonary arterial web** A weblike deformity seen in pulmonary angiograms at the site of previous pulmonary thromboembolism.

**pulmonary artery wedge pressure, pulmonary artery occlusive pressure** ABBR: PAWP. Pressure measured in the pulmonary artery after catheterization. The catheter is positioned in the pulmonary artery, and the distal portion of the catheter is isolated from pressure behind it in the artery by inflating a balloon with air. This allows the catheter to float into a wedged position, and permits sensing of transmission of pressures ahead of the catheter (in the pulmonary capillary bed) by the transducer. Because no valve is present between this location and the left atrium, the measurement reflects left atrial pressure, and, in the presence of a competent mitral valve, the measurement provides an indication of left ventricular end-diastolic pressure. The balloon is then passively deflated after measurements of wedge pressure are completed. Elevated wedge pressures are found characteristically in patients with congestive heart failure or fluid



### PULMONARY FUNCTION TEST

Pulmonary volumes

overload. SYN: *wedge pressure*. SEE: *Swan-Ganz catheter*.

**PATIENT CARE:** The nurse prepares and sets up the transducer equipment to monitor pulmonary artery pressure and PAWP alternately according to institutional protocol and manufacturer's instructions. The transducer is balanced and calibrated as required (every 4 to 8 hr). Hemodynamic status is monitored, and findings are documented, including pulmonary artery pressure (normally 20 to 30 mm Hg systolic and 8 to 12 mm Hg diastolic) every hour as directed. To measure PAWP every 1 to 4 hr as directed, the nurse inflates the balloon with 0.75 to 1.5 cc of air depending on balloon size (balloon is never inflated with fluid) while watching for change in waveform indicating wedging and assessing for balloon rupture (lack of resistance on inflation, with absence of wedging). If this occurs, the wedging procedure is discontinued (because of concern for air embolism), and therapy is managed based on pulmonary artery diastolic pressures. Pulmonary artery wedge pressure is read, documented (normally 4 to 12 mm Hg), and correlated to clinical findings and other hemodynamic values, and any abnormal findings are reported. The nurse then removes the syringe and permits passive deflation of the balloon while observing for reappearance of pulmonary artery pressure waveform. If the balloon remains inflated, the patient is at risk

for pulmonary artery necrosis. The patient should be positioned on the right side and encouraged to take deep breaths and to cough as the nurse mobilizes the right arm. If the balloon remains wedged, the physician should be notified. Fluid and diuretic therapy are adjusted based on PAWP and other values as prescribed. Impedance cardiography, a noninvasive method for collecting hemodynamic data, may be employed as a safe and painless alternative to invasive monitoring using a pulmonary artery catheter.

**pulmonary function test** One of several different tests used to evaluate the condition of the respiratory system. Measures of expiratory flow and lung volumes and capacities are obtained. The forced vital capacity is one of the more important pulmonary function tests; it provides a measure of the amount of air that can be maximally exhaled after a maximum inspiration and the time required for that expiration. Pulmonary function tests can also determine the diffusion ability of the alveolar-capillary membrane. SEE: *illus.*

**pulmonary mucociliary clearance** The removal of inhaled particles, endogenous cellular debris, and excessive secretions from the tracheobronchial tree by the action of the ciliated cells that live in the respiratory tract. The cilia of these cells beat and are therefore able to propel mucus and debris upward and out of the tracheobronchial tree. This



action is one of the most important defenses of the respiratory tract.

**pulmonary veno-occlusive disease** A condition that may complicate organ transplantation rejection. It is marked by extensive occlusion of the small and medium-sized veins of the lung by loose, sparsely cellular, fibrous tissue. Some larger veins may be involved. This disease produces severe pulmonary venous hypertension.

**pulmonectomy** (pŭl'mō-nĕk'tō-mĕ) [L. *pulmonis*, lung, + Gr. *ektome*, excision] Pneumectomy.

**pulmonic** (pŭl-mŏn'ĭk) **1.** Concerning the lungs. **2.** Concerning the pulmonary artery.

**pulmonologist** (pŭl-mō-nŏl'ō-jĭst) A physician trained and certified to treat pulmonary diseases.

**pulmotor** (pŭl'mō-tor) [ʹ + *motor*, mover] An apparatus for inducing artificial respiration by forcing air or oxygen into the lungs.

**pulp** (pŭlp) [L. *pulpa*, flesh] **1.** The soft part of fruit. **2.** The soft part of an organ. **3.** A mass of partly digested food passed from stomach to duodenum. SYN: *chyme*. **4.** The soft vascular portion of the center of a tooth.

**p. amputation** The technique of removing the coronal portion of an exposed or involved vital pulp in an effort to retain the radicular pulp in a healthy, vital condition. SYN: *pulpotomy*.

**p. capping** The technique and material for covering and protecting from external conditions a vital, exposed pulp while the pulp heals and secondary or tertiary dentin forms to cover it. SYN: *capping* (1).

**coronal p.** The portion of dental pulp in the crown of the pulp cavity.

**dead p.** Devascularized p.

**dental p.** The connective tissues that fill the pulp cavity enclosed by dentin of the tooth; it includes a vascular and nerve network, a peripheral layer of odontoblasts involved with dentin formation, and other cellular and fibrous components.

**devitalized p.** A dead or necrotic dental pulp as indicated by a vitalometer used for pulp testing.

**TREATMENT:** Treatment is by endodontic therapy (root canal). SYN: *dead pulp*.

**digital p.** The elastic, soft prominence on the palmar or plantar surface of the last phalanx of a finger or toe.

**enamel p.** Cells forming a stellate reticulum lying between outer and inner layers of the enamel organ of a tooth.

**exposed p.** Pulp that, due to disease, is exposed to the air and saliva in the mouth.

**TREATMENT:** Treatment includes extraction of the tooth or endodontic therapy (root canal).

**p. extirpation** The complete removal of the pulp tissue from the pulp chamber and root canal, irrespective of the state of health of the pulp. SYN: *pulpectomy*.

**putrescent p.** Dead pulp that has a foul odor because of the action of anaerobic bacteria.

**radicular p.** Pulp that is in the root canal of a tooth.

**red p.** The portion of splenic pulp consisting of vascular sinuses through which blood flows. The sinuses are separated by pulp cords, made up of loosely connected macrophages that phagocytize foreign antigens and old or damaged red blood cells. SEE: *spleen*.

**splenic p.** The sponglike vascular and connective tissue of the spleen.

**tooth p.** SEE: *tooth*.

**vital p.** Dental pulp that is alive and thus normal.

**white p.** The portion of splenic pulp, consisting of T and B lymphocytes, that forms sheaths around arteries. The sheaths are thickest around the large arteries and grow progressively thinner as the arteries progress into the spleen. SEE: *spleen*.

**wood p.** A soft form of cellulose, derived from wood or cotton, used as a food additive. Humans cannot digest it.

**pulpa** (pŭl'pā) [L. *pulpa*, flesh] Pulp.

**pulpalgia** (pŭl-pāl'jĕ-ā) [ʹ + Gr. *algos*, pain] Pain in the pulp of a tooth.

**pulpectomy** (pŭl-pĕk'tō-mĕ) [ʹ + Gr. *ektome*, excision] Pulp extirpation.

**pulpefaction** (pŭl-pĭ-fāk'shŭn) [L. *pulpa*, pulp, + *facere*, to make] Conversion into a pulpy substance.

**pulpitis** (pŭl-pĭ'tis) *pl.* **pulpitides** [ʹ + *itis*, inflammation] Inflammation of the pulp of a tooth.

**pulpotomy** (pŭl-pŏt'ō-mĕ) [ʹ + Gr. *tome*, incision] Pulp amputation.

**pulp tester** Vitalometer.

**pulp vitality test** A determination of the vitality of a tooth pulp by the application of hot, cold, or electrical stimuli. Also called *vitalometry*.

**pulpy** (pŭl'pĕ) Resembling pulp; flabby. **pulsate** (pŭl'sāt) [L. *pulsare*] To throb or beat in rhythm.

**pulsatile** (pŭl'sā-tĭl) Pulsating; characterized by a rhythmic beat. SYN: *throbbing*.

**Pulsatilla** (pŭl'sā-tĭl'ā) [NL] A genus of wild flowers, commonly called pasqueflowers, wind-flowers, and meadow anemones. The flowers are used in homeopathic remedies and are investigated for their cytotoxic components.

**pulsation** (pŭl-sā'shŭn) [L. *pulsatio*, a beating] The rhythmic beat, as of the heart and blood vessels; a throbbing. SEE: *pulse*.

**pulse** (pŭls) [L. *pulsus*, beating] **1.** Rate, rhythm, condition of arterial walls, compressibility and tension, and size and

shape of the fluid wave of blood traveling through the arteries as a result of each heartbeat. **2.** Rhythmical throbbing. **3.** Throbbing caused by the regular contraction and alternate expansion of an artery as the wave of blood passes through the vessel; the periodic thrust felt over arteries in time with the heartbeat.

A tracing of this is called a sphygmogram and consists of a series of waves in which the upstroke is called the anacrotic limb, and the downstroke (on which is normally seen the dicrotic notch), the catacrotic limb.

The normal resting pulse in adults is between 60 and 100 beats per minute. The resting pulse is faster, for example, in febrile patients, anemic or hypovolemic persons, persons in shock, and patients who have taken drugs that stimulate the heart, such as theophylline, caffeine, nicotine, or cocaine. It may be slower in well-trained athletes; in patients using beta blockers, calcium channel blockers, or other agents; and during sleep or deep relaxation.

**PATIENT CARE:** In patients complaining of chest pain, pulses should be assessed in at least two extremities (e.g., both radial arteries). A strong pulse on the right side with a weak one on the left may suggest an aortic dissection or a stenosis of the left subclavian artery. Young patients with high blood pressure should have pulses assessed simultaneously at the radial and femoral artery because a significant delay in the femoral pulse may suggest coarctation of the aorta. Patients with recent symptoms of stroke or claudication should have pulses checked at the carotid, radial, femoral, popliteal, and posterior tibial arteries, to see whether any palpable evidence of arterial insufficiency exists at any of these locations. If a decreased pulse is detected, further evaluation might include ultrasonography or assessments of the ankle brachial index. Patients who are light-headed or dizzy or who notice palpitations may have detectable premature beats or other pulse irregularities (e.g., the irregularly irregular pulse of atrial fibrillation).

**abdominal p.** A palpable pulse felt between the xiphoid process and the navel. This is produced by the pulse of the abdominal aorta.

**accelerated p.** Tachycardia.

**alternating p.** A pulse with alternating weak and strong pulsations.

**anacrotic p.** A pulse showing a secondary wave on the ascending limb of the main wave.

**anadicrotic p.** A pulse wave with two small notches on the ascending portion.

**apical p.** A pulse felt or heard over the apex of the heart.

**asymmetrical radial p.** Unequal p.

**basal p.** Resting p.

**bigeminal p.** A pulse in which two regular beats are followed by a longer pause. SYN: *coupled pulse*.

**bisferiens p.** A pulse marked by two systolic peaks on the pulse waveform. It is characteristic of aortic regurgitation (with or without aortic stenosis) and hypertrophic cardiomyopathy.

**bounding p.** A pulse that reaches a higher intensity than normal, then disappears quickly. Best detected when the arm is held aloft. SYN: *collapsing pulse*.

**brachial p.** A pulse felt in the brachial artery.

**capillary p.** Alternating redness and pallor of a capillary region, as in the matrices beneath the nails, occurring chiefly in aortic insufficiency. SYN: *Quincke's pulse*.

**carotid p.** A pulse felt in the carotid artery.

**catacrotic p.** A pulse showing one or more secondary waves on the descending limb of the main wave.

**catadicrotic p.** A pulse wave with two small notches on the descending portion.

**central p.** A pulse recorded near the origin of the carotid or subclavian arteries.

**collapsing p.** Bounding p.

**coupled p.** Bigeminal p.

**dicrotic p.** A pulse with a double beat, one heartbeat for two arterial pulsations, or a seemingly weak wave between the usual heartbeats. This weak wave should not be counted as a regular beat. It is indicative of low arterial tension and is noted in fevers.

**dorsalis pedis p.** A pulse felt over the dorsalis pedis artery of the foot.

**entoptical p.** Intermittent subjective sensations of light that accompany the heartbeat.

**filiform p.** Thready p.

**hepatic p.** A pulse due to expansion of veins of the liver at each ventricular contraction.

**intermediate p.** A pulse recorded in the proximal portions of the carotid, femoral, and brachial arteries.

**intermittent p.** A pulse in which occasional beats are skipped, caused by conditions such as premature atrial contractions, premature ventricular contractions, and atrial fibrillation. SYN: *irregular pulse*.

**irregular p.** Intermittent pulse.

**irregularly irregular p.** The erratic, unpredictable pulse that is present in atrial fibrillation.

**jugular p.** A venous pulse felt in the jugular vein.

**Kussmaul's p.** Paradoxical p.

**monocrotic p.** A pulse in which the sphygmogram shows a simple ascend-

ing and descending uninterrupted line and no diastole.

**nail p.** A visible pulsation in the capillaries under the nails.

**paradoxical p.** A decrease in the strength of the pulse (and of systolic blood pressure) during inspiration, a condition that may be esp. prominent in severe asthma, cardiac tamponade, obstructive sleep apnea, croup, and other conditions that alter pressure relationships within the chest. SYN: *Kussmaul's pulse*; *pulsus paradoxus*.

**p. parvus** Pulsus parvus et tardus.

**peripheral p.** A pulse recorded in the arteries (radial or pedal) in the distal portion of the limbs.

**pistol-shot p.** A pulse resulting from rapid distention and collapse of an artery as occurs in aortic regurgitation.

**plateau p.** A pulse associated with an increase in pressure that slowly rises but is maintained.

**rapid p.** Tachycardia.

**regular p.** A pulse felt when the force and frequency are the same (i.e., when the length of beat and number of beats per minute and the strength are the same).

**respiratory p.** Alternate dilatation and contraction of the large veins of the neck occurring simultaneously with inspiration and expiration.

**resting p.** A pulse rate obtained while an individual is at rest and calm. SYN: *basal pulse*.

**Riegel's p.** A diminution of the pulse during expiration.

**running p.** A weak, rapid pulse with one wave continuing into the next.

**short p.** A pulse with a short, quick systolic wave.

**slow p.** A pulse rate that is less than 60 beats per minute.

**small p.** SEE: *pulsus parvus et tardus*.

**soft p.** A pulse that may be stopped by moderate digital compression.

**tense p.** A full but not bounding pulse.

**thready p.** A fine, scarcely perceptible pulse. SYN: *filiform pulse*.

**tremulous p.** A pulse in which a series of oscillations is felt with each beat.

**tricrotic p.** A pulse with three separate expansions during each heartbeat.

**triphammer p.** Waterhammer p.

**undulating p.** A pulse that seems to have several successive waves.

**unequal p.** A pulse in which beats vary in force. SYN: *asymmetrical radial pulse*.

**vagus p.** A slow pulse resulting from parasympathetic influence on heart rate, mediated by the vagus nerve.

**venous p.** A pulse in a vein, esp. one of the large veins near the heart, such as the internal or external jugular. Normally it is undulating and scarcely pal-

pable. In conditions such as tricuspid regurgitation, it is pronounced.

**vermicular p.** A small, frequent pulse with a wormlike feeling.

**waterhammer p.** A pulse with a powerful upstroke and then sudden disappearance; a hallmark of aortic regurgitation. SYN: *triphammer pulse*; *Corrigan's pulse*.

**wiry p.** A tense pulse that feels like a wire or firm cord.

**pulsed-dose oxygen delivery** A means of oxygen conservation in which oxygen flow is provided to the patient in the first third of inspiration, instead of continuously throughout the respiratory cycle.

**pulsed lavage** (pŭlst) ["] The irrigation of a tissue surface or body cavity with intermittent sprays or splashes of fluid. It is used in several procedures to reduce the bacterial burden of contaminated surfaces, but it may occasionally cause tissue damage or infection if non-sterile solutions are accidentally employed.

**pulseless disease** Takayasu's arteritis.

**pulseless electrical activity** A form of cardiac arrest in which the continuation of organized electrical activity in the heart is not accompanied by a palpable pulse or effective circulation of blood. SEE: *cardiopulmonary resuscitation*.

**ETIOLOGY:** PEA may be caused by severe acidosis; cardiac ischemia or infarction; hyperkalemia; hypothermia; hypoxia; hypovolemia (e.g., bleeding or dehydration); massive pulmonary embolism (which blocks the return of blood from the body to the heart); cardiac tamponade; and tension pneumothorax.

**SYMPTOMS:** The patient is unresponsive, pulseless, and apneic.

**TREATMENT:** Chest compressions are started. Intravenous fluids are given, and potentially correctable conditions are addressed (e.g., when cardiac tamponade is suspected, pericardiocentesis is performed; for tension pneumothorax, needle decompression of the chest is performed).

**pulsing electromagnetic field** ABBR: PEMF. An alternating electrical current used to produce an electromagnetic field. This may induce healing when applied to a fractured bone. The field is applied noninvasively to the affected limb. It may be moderately helpful in treating bony nonunion. SEE: *diathermy*.

**pulsion** (pŭl'shŭn) Driving or propelling in any direction.

**lateral p.** Movement, particularly walking as if pulled to one side.

**pulsus** (pŭl'sŭs) [L.] Pulse.

**p. alternans** A weak pulse alternating with a strong one.

**p. bigeminus** Bigeminal pulse.

**p. celer** A quick pulse that rises and falls suddenly.

**p. differens** A condition in which the pulses on either side of the body are of unequal intensity. It is seen sometimes in aortic dissection, or in atherosclerotic obstruction of one of the subclavian arteries.

**p. paradoxus** Paradoxical pulse.

**p. parvus et tardus** A pulse that is small and rises and falls slowly, indicative of severe aortic stenosis. SYN: *pulse parvus*.

**p. tardus** An abnormally slow pulse.

**pulv** (pŭlv) *L. pulvis*, powder.

**pulverization** (pŭl'vēr-i-zā'shŭn) [*L. pulvis*, powder] The crushing of any substance to powder or tiny particles.

**pulverulent** (pŭl-vēr'ū-lĕnt) Of the nature of, or resembling, powder.

**pulvinar** (pŭl-vī'nār) [*L.*, cushioned seat] The part of the thalamus comprising a portion of the posterior nuclei. It projects posteriorly and medially, partially overlying the midbrain.

**pulvinate** (pŭl'vī-nāt) [*L. pulvinus*, cushion] Convex; shaped like a cushion.

**pulvis** (pŭl-vīs) [*L.*] Powder.

**pumice** (pŭm'is) An abrasive polishing agent derived from volcanic material. Pumice consists chiefly of complex silicates of aluminum, potassium, and sodium.

**pump** [ME. *pumpe*] **1.** An apparatus that transfers fluids or gases by pressure or suction. **2.** To force air or fluid along a certain pathway, as when the heart pumps blood.

**air p.** A device for forcing air in or out of a chamber.

**blood p.** **1.** A device for pumping blood. It is attached to an extracorporeal circulation system. **2.** A compression sleeve placed about a plastic transfusion bag.

**breast p.** An apparatus for removing milk from the breasts.

**efflux p.** A cell membrane protein channel that selectively admits or excludes chemicals from the cytoplasm. In some bacteria efflux pumps prevent their cells from accumulating antibiotics, contributing to drug resistance.

**insulin p.** SEE: *insulin pump*.

**intra-aortic balloon p.** Intra-aortic balloon counterpulsation.

**lymphedema p.** A pneumatic compression device for application to an edematous limb. It works best when combined with elevation of the limb and manual massage. The device, which may be single-chambered or multichambered, is designed to provide calibrated, sequential pressure to the extremity. This action "milks" edema fluid from the extremity. It is essential that the device be used in the early phase of the development of lymphedema. If the affected lymph vessels develop fibrotic changes (i.e., scar tissue), then pneumatic com-

pression devices are of questionable benefit.

**sodium p.** The active transport mechanism that moves sodium ions across a membrane to their area of greater concentration. In neurons and muscle cells, this is outside the cell. In many cells, the sodium pump is linked with the potassium pump that transports potassium ions into the cell, also against a concentration gradient, and may be called the *sodium-potassium pump*. In neurons and muscle fibers, this pump maintains the polarization of the membrane.

**stomach p.** A colloquial term for gastric lague.

**venous plexus foot p.** A device that alternates between applying pressure and no pressure on the sole of the foot. The change in pressure allows venous blood vessels to alternately fill and then empty, thus imitating the effects of walking on the veins of the lower extremities. The pump is used to prevent deep vein thromboses (DVTs) in patients at high risk because of a previous history of DVTs, hypercoagulable states, or prolonged bedrest.

**pumping** (pŭm'pĕng) Draining or emptying of fluids by hydraulic suction.

**lymphatic p.** In osteopathic practice, manipulation of the thoracic cavity to facilitate lymphatic circulation.

**pump-oxygenator** (pŭmp-ŏk'sī-jĕn-ā'tŏr) A device that pumps and oxygenates blood.

**punch** An instrument for making a small circular hole in material or tissue, esp. the skin.

**punchdrunk** An imprecise term pert. to the behavioral consequences of traumatic brain injury in boxers who have received many blows to the head. If severe, cognitive and motor functions of the brain may be affected. Symptoms may resemble those of Parkinson's disease. SYN: *dementia pugilistica*.

**punched out** Appearing as if holes have been made; used to describe appearance of bones (as seen on x-ray film) in diseases like multiple myeloma.

**puncta** (pŭnk'tā) *sing.*, **punctum** [*L.*] Points.

**punctate** (pŭnk'tāt) [*L. punctum*, point] Having pinpoint punctures or depressions on the surface; marked with dots.

**p. keratoses** Discrete yellow-to-brown firm papules of the palms and soles that appear after skin trauma, e.g., in walking or regular use of the hands or feet at work. The lesions are found in patients with a genetic predisposition to keratoderma.

**p. pits** Depressed areas of the skin, esp. of the palmar creases of the hands and soles.

**p. rash** A rash with minute red points.

**punctiform** (pŭnk'ti-form) [*ʹ* + *forma*, shape] **1.** Formed like a point. **2.** In bacteriology, referring to pinpoint colonies of less than 1 mm in diameter.

**punctio** (pŭnk'shē-ō) [L. *punctura*, a point] The act of puncturing or pricking.

**punctoplasty** (pŭngk'tā-plās'tē) An operation to improve the drainage of tears through the lacrimal punctum of the eye when that opening is partly or completely blocked. The procedure is used to treat excessive tearing.

**punctum** (pŭnk'tŭm) *pl.* **puncta** [L.] Point.

**puncture** (pŭnk'chŭr) [L. *punctura*, prick] **1.** A hole or wound made by a sharp pointed instrument. **2.** To make a hole with such an instrument.

**arterial p.** Placement of a needle or catheter into an artery to sample blood gases or blood pressure, or positioning of a catheter in the aorta or the heart.

**cerebrospinal p.** A puncture of the meninges to collect cerebrospinal fluid, or to inject contrast media or medications. Puncture sites include the spaces around the spinal cord (lumbar puncture), the cisterna magna (cisternal puncture), or open fontanelles in infants (ventricular puncture).

**cisternal p.** A spinal puncture with a hollow needle between the cervical vertebrae, through the dura mater, and into the cisterna at the base of the brain. This is done to inject a drug as in meningitis or cerebral syphilis, to remove spinal fluid for diagnostic purposes, or to reduce intracranial pressure. It should be used as a source of spinal fluid only if fluid cannot be obtained by lumbar puncture. SEE: *cerebrospinal fluid*.



This procedure may be lethal if not done by one skilled in this technique.

**diabetic p.** Puncture in the floor of the fourth ventricle, which results in glycosuria. This lesion was produced experimentally by the French physiologist Claude Bernard.

**exploratory p.** Piercing of a cavity or cyst for the purpose of examining the fluid or pus removed.

**sternal p.** Use of a large-bore needle to obtain a specimen of marrow from the sternum.

**tracheoesophageal p.** The surgical creation of a passage between the trachea and esophagus. It is used for vocal restoration in patients who have undergone laryngectomy. The technique provides air to the esophagus. The patient is trained to use that air to make vibrations that recreate speech.

**ventricular p.** Puncture of a ventricle of the brain for purpose of withdrawing

fluid or introducing air for ventriculography.

**pungency** (pŭn'jĕn-sē) [L. *pungens*, prick] The quality of being sharp, strong, or bitter, as an odor or taste.

**pungent** (pŭn'jĕnt) Acrid or sharp, as applied to an odor or taste.

**pupa** (pŭ'pā) [L., girl] The stage in complete metamorphosis of an insect that follows the larva and precedes the adult or imago. The insect does not feed during this stage and usually is inactive.

**pupil** (pŭ'pĭl) [L. *pupilla*] The contractile opening at the center of the iris of the eye. It is constricted when exposed to strong light and when the focus is on a near object; is dilated in the dark and when the focus is on a distant object. Average diameter is 4 to 5 mm. The pupils should be equal. SEE: *pupilla*.

**DIFFERENTIAL DIAGNOSIS:** Constriction of the pupil occurs, for example, in bright light and after exposure to drugs such as morphine, pilocarpine, physostigmine, eserine, and other miotics.

Dilation of the pupil is most often observed after treatment with mydriatic drugs (such as atropine, scopolamine, or homatropine), but may also be caused by paralysis of cranial nerve III, intracranial masses or trauma, sympathetic nervous system stimulation, and other pupillary stimuli.

**Adie's p.** SEE: *Adie's pupil*.

**artificial p.** A pupil made by iridectomy when the normal pupil is occluded.

**bounding p.** Rapid dilatation of a pupil, alternating with contraction.

**Bumke's p.** Dilatation of the pupil owing to psychic stimulus.

**cat's-eye p.** A pupil that is narrow and slitlike.

**cornpicker's p.** Dilated pupils found in agricultural workers who are exposed to dust from jimsonweed. The dust contains stramonium, a mydriatic.

**fixed p.** A pupil that does not react to stimuli.

**keyhole p.** A pupil with an artificial coloboma at the pupillary margin.

**luetic p.** Argyll Robertson pupil.

**occlusion of the p.** A pupil with an opaque membrane shutting off the pupillary area.

**pinhole p.** A pupil of minute size; one excessively constricted; seen after use of miotics, in opium poisoning, and in certain brain disorders.

**stiff p.** Argyll Robertson pupil.

**tonic p.** A pupil that reacts slowly in accommodation-convergence reflexes. SYN: *Adie's pupil*.

**pupilla** (pŭ-pĭl'ā) [L., pupil] The pupil of the eye.

**pupillary** (pŭ'pĭ-lĕr-ē) [L. *pupilla*, pupil] Concerning the pupil.

**pupillography** (pŭ-pĭl-ōg'rā-fĕ) Recording movements of the pupil of the eye.



**pupillometer** (pū-pīl-ōm'ē-tēr) [ʹ + Gr. *metron*, measure] A device for measuring the diameter of a pupil.

**pupillometry** (pū-pīl-lōm'ē-trē) [ʹ + *metron*, measure] Measurement of the diameter of the pupil. In sleep medicine research, pupillary measurements are used to determine arousal versus drowsiness.

**pupillomotor reflex** (pū-pīl-ō-mō'tōr) Purkinje phenomenon.

**pupilloplegia** (pū'pī-lō-plē'jē-ā) [ʹ + *plege*, stroke] Slow reaction of the pupil of the eye.

**pupilloscopy** (pū-pīl-ōs'kō-pē) [ʹ + Gr. *skopein*, to examine] 1. Retinoscopy. 2. Examination of the pupil.

**pupillostatometer** (pū'pīl-ō-stā-tōm'ē-tēr) [ʹ + Gr. *statos*, placed, + *metron*, measure] A device for measuring the distance between the centers of the pupils.

**Purdue Pegboard Test** (pēr-doo') A standardized test of manual dexterity for adults and children.

**pure** (pūr) [ME.] Free from pollution; uncontaminated.

**pure white cell aplasia** Bone marrow failure in which leukocytes are not manufactured and circulated into the bloodstream. It is an uncommon cause of neutropenia.

**purgation** (pūr-gā'shūn) [L. *purgatio*] 1. Cleansing. 2. Evacuation of the bowels by the action of a purgative medicine. SYN: *catharsis*.

**purgative** (pūr'gā-tiv) [L. *purgativus*] 1. Cleansing. 2. An agent that will stimulate the production of bowel movements. SEE: *catharsis*; *cathartic*.

**purge** (pūrj) [L. *purgare*, to cleanse] 1. To evacuate the bowels by means of a cathartic. 2. A drug that causes evacuation of the bowels. 3. Removal of malignant or other pathologic cells from bone marrow.

**purging** (pūr'jīng) In eating disorders, the act of eliminating ingested calories, either by vomiting or by evacuation of the bowels. Purging behaviors may include misuse of emetics, diuretics, laxatives, or enemas.

**purified protein derivative** ABBR: P.P.D. Tuberculin.

**puriform** (pū'ri-form) [L. *pus*, pus, + *forma*, shape] Resembling pus. SEE: *puruloid*.

**purinase** (pū'ri-nās) An enzyme that catalyzes purine metabolism.

**purine** (pū'rēn) [L. *purum*, pure, + *uricus*, uric acid] Parent compound of nitrogenous bases, including adenine, guanine, xanthine, caffeine, and uric acid. Purines (chemical formula C<sub>5</sub>H<sub>4</sub>N<sub>4</sub>) are the end products of nucleoprotein digestion, and are catabolized to uric acid, which is excreted by the kidneys. Adenine and guanine are synthesized within cells for incorporation

into DNA and RNA. SEE: *aminopurine*; *oxypurine*; *methyl purine*.

**endogenous p.** Purine originating from nucleoproteins within the tissues.

**exogenous p.** Purine present in, or derived from, foods. SEE: table.

**purine base** Xanthine base.

**purinemia** (pū'ri-nē'mē-ā) [*purine*, + Gr. *haima*, blood] Purine in the blood.

**purity** [L. *puris*, clean, pure, unmixed] The state of being free of contamination.

**Purkinje, Johannes E. von** (pūr-kin'jē) Bohemian anatomist and physiologist, 1787–1869.

**P. cell** A large neuron that has dendrites extending to the molecular layer of the cerebellar cortex and an axon running in the opposite direction, radially into the white matter of the cerebellum.

**P. fiber** A cardiac muscle cell beneath the endocardium of the ventricles of the heart. These extend from the bundle branches to the ventricular myocardium and form the last part of the cardiac conduction system.

### Purines in Food

Group A: High Concentration (150–1000 mg/100 g)	
Liver	Sardines (in oil)
Kidney	Meat extracts
Sweetbreads	Consommé
Brains	Gravies
Heart	Fish roes
Anchovies	Herring
Group B: Moderate Amounts (50–150 mg/100 g)	
Meat, game, and fish other than those mentioned in Group A	
Fowl	Asparagus
Lentils	Cauliflower
Whole-grain cereals	Mushrooms
Beans	Spinach
Peas	
Group C: Very Small Amounts: Need Not be Restricted in Diet of Persons with Gout	
Vegetables other than those mentioned above	
Fruits of all kinds	Coffee
Milk	Tea
Cheese	Chocolate
Eggs	Carbonated beverages
Refined cereals, spaghetti, macaroni	Tapioca
Butter, fats, nuts, peanut butter*	
Sugars and sweets	
Vegetable soups	

\* Fats interfere with the urinary excretion of urates and thus should be limited if the objective is to promote excretion of uric acid.

**P. figures** Shadows of blood vessels perceived when light is projected out of focus or obliquely onto the retina.

**P. layer** A single row of large flask-shaped cells (Purkinje cells) lying between molecular and granular layers of the cerebellar cortex.

**P. phenomenon** The adjustment of the pupil of the eye to light intensity. When the eye adapts from light to dark conditions, the maximum pupillary movement is caused by green instead of yellow light. SYN: *pupillomotor reflex*.

**P.-Sanson images** Three images of the same object, produced by reflections from the surface of the cornea and the anterior and posterior surfaces of the lens of the eye. For the most part, the viewer adapts to this phenomenon and ignores these "extra" images.

**Purkinje's corpuscle** SEE: *Purkinje cell*.  
**puromucous** (pū'rō-mū'kūs) [ " + *mucus*, *mucus*] Mucopurulent, containing both mucus and pus.

**purple** A color formed by mixing red with blue.

**visual p.** Rhodopsin.

**purple bacteria** A colloquial term for the proteobacteria.

**purple glove syndrome** ABBR: PGS. A rare, progressive, soft tissue injury characterized by progressive edema and purple discoloration of the forearm and hand. It is caused by the extravasation of phenytoin into soft tissue. Adults over the age of 60 and those with a history of peripheral vascular disease receiving intravenous phenytoin are at increased risk for PGS, but the syndrome has also been documented in patients receiving high oral doses.

**purpura** (pūr'pū-rā) [L., purple] Any rash in which blood cells leak into the skin or mucous membranes, usually at multiple sites. Purpuric rashes often are associated with disorders of coagulation or thrombosis. Pinpoint purpuric lesions are called petechiae; larger hemorrhages into the skin are called ecchymoses. SYN: *peliosis*. SEE: *illius*.

**allergic p.** Any of a group of purpuras caused by a variety of agents, including bacteria, drugs, and food. The immune complexes associated with type III hypersensitivity reaction damage the walls of small blood vessels, leading to bleeding. SYN: *nonthrombocytopenic purpura*.

**anaphylactoid p.** Henoch-Schönlein purpura.

**p. annularis telangiectodes** Majocchi's disease.

**fibrinolytic p.** Purpura resulting from excess fibrinolytic activity of the blood.

**p. fulminans** A rapidly progressing form of purpura occurring principally in children; of short duration and frequently fatal.



PURPURA

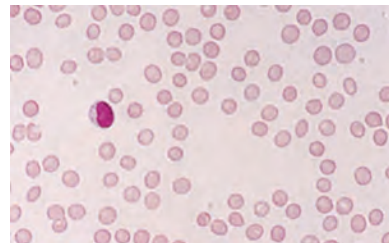
**hemorrhagic p.** Idiopathic thrombocytopenic p.

**Henoch-Schönlein p.** SEE: *Henoch-Schönlein purpura*.

**idiopathic thrombocytopenic p.** ABBR: ITP. A hemorrhagic autoimmune disease in which there is destruction of circulating platelets, caused by antiplatelet autoantibodies that bind with antigens on the platelet membrane, making platelets more susceptible to phagocytosis and destruction in the spleen. It occurs as an acute disease in children, usually between ages 2 and 6, and often follows a viral infection. Chronic ITP seldom follows an infection and is commonly linked to immunologic disorders such as lupus erythematosus or patients with acquired immunodeficiency syndrome who are exposed to the rubella virus. It also is linked to drug reactions, and occurs in cases of alcohol, heroin, or morphine abuse. It mainly affects adults younger than age 50, especially women between 20 and 40. Opsonization of platelets by autoantibodies stimulates their lysis by macrophages, esp. in the spleen. SYN: *Henoch-Schönlein disease*; *hemorrhagic purpura*; *thrombocytopenic purpura*; *thrombopenic purpura*. SEE: *illius*; *Nursing Diagnoses Appendix*.



People with ITP should take special precautions to avoid injuries in con-



IDIOPATHIC THROMBOCYTOPENIC PURPURA

Virtual absence of platelets in peripheral blood (×400)

tact sports. Aspirin and other drugs that may cause bleeding should only be taken by people with ITP under direction of an experienced physician.

**SYMPTOMS:** Symptoms may include bleeding from the nose, the gums, or the gastrointestinal tract. Physical findings include petechiae, esp. on the lower extremities, and ecchymoses. Laboratory findings: The platelet count is usually less than 20,000/mm<sup>3</sup>, bleeding time is prolonged, and may be associated with mild anemia as a result of bleeding.

**TREATMENT:** If patients are asymptomatic (i.e., have no active bleeding) and have platelet counts of about 50,000/mm<sup>3</sup>, treatment is not needed (4 out of 5 patients recover without treatment). Treatment for symptomatic patients, or patients with very low platelet counts, usually is with glucocorticoids or immune globulin for acute cases and corticosteroids for chronic cases. For those who do not respond within 1 to 4 months, treatment may include high-dose corticosteroids, intravenous immune globulin (IVIG), immunosuppression, immunoabsorption apheresis using staphylococcal protein-A columns to filter antibodies out of the bloodstream, AntiRhD therapy for those with specific blood types, splenectomy, or chemotherapeutic drugs such as vincristine or cyclophosphamide.

**PATIENT CARE:** Platelet count is monitored closely. The patient is observed for bleeding (petechiae, ecchymoses, epistaxis, oral mucous membrane or GI bleeding, hematuria, menorrhagia) and stools, urine, and vomitus are tested for occult blood. The amount of bleeding or size of ecchymoses is measured at least every 24 hr. Any complications of ITP are monitored. The patient is educated about the disorder, prescribed treatments, and importance of reporting bleeding (such as epistaxis, gingival, urinary tract, or uterine or rectal bleeding) and signs of internal bleeding (such as tarry stools or coffee-ground vomitus). The patient should avoid straining during defecation or coughing because both can lead to increased intracranial pressure, possibly causing cerebral hemorrhage. Stool softeners are provided as necessary to prevent tearing of the rectal mucosa and bleeding due to passage of constipated or hard stools. The purpose, procedure, and expected sensations of each diagnostic test are explained. The role of platelets and the way in which the results of platelet counts can help to identify symptoms of abnormal bleeding are also explained. The lower the platelet count falls, the more precautions the patient will need to take; in severe thrombocytopenia, even minor bumps

or scrapes can result in bleeding. The nurse guards against bleeding by taking the following precautions to protect the patient from trauma: keeping the side rails of the bed raised and padded, promoting use of a soft toothbrush or sponge-stick (toothette) and an electric razor, and avoiding invasive procedures if possible. When venipuncture is unavoidable, pressure is exerted on the puncture site for at least 20 min or until the bleeding stops. During active bleeding, the patient maintains strict bedrest, with the head of the bed elevated to prevent gravity-related intracranial pressure increases, possibly leading to intracranial bleeding. All areas of petechiae and ecchymoses are protected from further injury. Rest periods are provided between activities if the patient tires easily. Both patient and family are encouraged to discuss their concerns about the disease and its treatment, and emotional support is provided and questions answered honestly. The nurse reassures the patient that areas of petechiae and ecchymoses will heal as the disease resolves. The patient should avoid taking aspirin in any form as well as any other drugs that impair coagulation, including nonsteroidal anti-inflammatory drugs. If the patient experiences frequent nosebleeds, the patient should use a humidifier at night and should moisten the nostrils twice a day with saline. The nurse teaches the patient to monitor the condition by examining the skin for petechiae and ecchymoses and demonstrates the correct method to test stools for occult blood. If the patient is receiving corticosteroid therapy, fluid and electrolyte balance is monitored and the patient is assessed for signs of infection, pathological fractures, and mood changes. If the patient is receiving blood or blood components, they are administered according to protocol; vital signs are monitored before, during, and after the transfusion, and the patient is observed closely for adverse reactions. If the patient is receiving immunosuppressants, the patient is monitored closely for signs of bone marrow depression, opportunistic infections, mucositis, GI tract ulceration, and severe diarrhea or vomiting. If the patient is scheduled for a splenectomy, the nurse determines the patient's understanding of the procedure, corrects misinformation, administers prescribed blood transfusions, explains postoperative care and expected activities and sensations, ensures that a signed informed consent has been obtained, and prepares the patient physically (according to institutional or surgeon's protocol) and emotionally for the surgery. Postoperatively, all general patient care concerns apply. Normally, platelets

increase spontaneously after splenectomy, but the patient may need initial postoperative support with blood and component replacement and platelet concentrate. The patient with chronic ITP should wear or carry a medical identification device.

**nonthrombocytopenic p.** Allergic purpura.

**p. rheumatica** Purpura with joint pain, colic, bloody stools, and vomiting of blood.

**p. simplex** Purpura that is not associated with systemic illness.

**thrombocytopenic p.** Idiopathic thrombocytopenic purpura.

**thrombopenic p.** Idiopathic thrombocytopenic purpura.

**thrombotic thrombocytopenic p.** ABBR: TTP. A rare life-threatening disease marked by widespread aggregation of platelets throughout the body, neurological dysfunction, and renal insufficiency. The disease is triggered by a deficiency of an enzyme that cleaves von Willebrand factor (a blood clotting protein). This deficiency results in blood clots in small blood vessels throughout the body. Shifting neurological signs such as aphasia, blindness, and convulsions are often present. SEE: *hemolytic uremic syndrome*.

**ETIOLOGY:** The disease has occurred in patients taking certain drugs (e.g., ticlopidine); in some patients with cancer or HIV-1 infection; and in some pregnant women.

**TREATMENT:** Plasmapheresis or infusions of fresh frozen plasma are effective in treating the disease.

**wet p.** A blister filled with blood; colloquially, a blood blister.

**purpureaglycosides A and B** (pür-pür-ä-glí-kō-síds) True cardiac glycosides present in the leaves of *Digitalis purpurea*, foxglove.

**purpuric** (pür-pür'rik) [*L. purpura*, purple] Pert. to, resembling, or suffering from purpura.

**purring thrill** A vibration, like a cat's purring, due to mitral stenosis, aneurysm, or valvular disease of the heart; felt by palpation over the precordium.

**pursuit dysfunction** An inability of the eyes to follow or track a moving object.

**purulence, purulency** (pür'ü-léns, -lén'sé) [*LL. purulentia*, collection of pus] The condition of forming or containing pus.

**purulent** (pür'ü-lént) [*L. purulentus*, full of pus] Suppurative; forming or containing pus. SEE: *sputum*.

**puruloid** (pür'ü-loyd) [*L. pus*, pus, + *Gr. eidos*, form, shape] Like pus. SYN: *puriform*.

**pus** (püs) [*L.*] Protein-rich fluid (exudate) containing white blood cells, esp. neutrophils, and cell debris produced during inflammation. It commonly is

caused by infection with pyogenic (pus-forming) bacteria such as streptococci, staphylococci, gonococci, and pneumococci. Normally, pus is yellow; red pus may contain blood from the rupture of small vessels, and bluish-green pus may contain *Pseudomonas aeruginosa*. Pus that has been walled off by a membrane is called an abscess. SYN: *suppuration*. SEE: *purulence*; *abscess*.

**blue p.** Purulence with a blue tint; usually associated with infection due to *Pseudomonas aeruginosa*.

**ichorous p.** Pus that is thin with shreds of sloughing tissue. It may have a fetid odor.

**push** (poosh) [*ME. pushen*] **1.** To inject rapidly. **2.** A substance that is rapidly injected. **3.** A bolus.

**pustula** (püs'tü-lä) [*L.*, blister] Pustule.

**pustulant** (püs'tü-länt) [*L. pustula*, blister] **1.** Causing pustules. **2.** An agent that produces the formation of pustules.

**pustular** (püs'tü-lér) Pert. to, or characterized by, pustules.

**pustulation** (püs'tü-lä'shün) The development of pustules.

**pustule** (püs'tül) [*L. pustula*, blister] A small, elevated skin lesion filled with white blood cells and, sometimes, bacteria or the products of broken-down cells. Pustules are found in many common skin disorders, including acne vulgaris, some drug rashes, many viral exanthems (e.g., herpes simplex or varicella-zoster viruses), and pustular psoriasis.

**pustulocrustaceous** (püs'tü-lö-krüs-tä'shüs) [" + *crusta*, shell] Characterized by formation of pustules and crusts.

**pustulosis** (püs'tü-lö'sis) [" + *Gr. osis*, condition] A generalized eruption of pustules.

**putamen** (pü-tä'mén) [*L.*, shell] A continuation of the caudate nucleus. The putamen and the caudate nucleus form the corpus striatum, which along with the globus pallidus forms the basal ganglia of the brain.

**Putnam-Dana syndrome** (püt'näm-dä'nä) [James J. Putnam, U.S. neurologist, 1846–1918; Charles L. Dana, U.S. neurologist, 1852–1935] Subacute combined degeneration of the spinal cord that may be present in patients with untreated pernicious anemia.

**putrefaction** (pü'trë-fäk'shün) [*L. putrefactio*] Decomposition of animal matter, esp. protein associated with malodorous and poisonous products such as the ptomaines, mercaptans, and hydrogen sulfide, caused by certain kinds of bacteria and fungi. Decomposition that occurs in previously sterile tissue after death (carried out by normal flora) is called autolysis. SEE: *sepsis*.

**intestinal p.** The chemical changes by bacteria in the intestine, forming in-

- dole, skatole, paracresol, phenol, phenylpropionic acid, phenylacetic acid, paraoxyphenylacetic acid, hydroparacumaric acid, fatty acids, carbon dioxide, hydrogen, methane, methylmercaptan, and sulfurated hydrogen.
- putrefactive** (pū'trē-fāk'tiv) [L. *putrefacere*, to putrefy] 1. Causing, or pert. to, putrefaction. 2. Agent promoting putrefaction.
- putrefy** (pū'trē-fi) [L. *putrefacere*, to putrefy] To undergo putrefaction.
- putrescence** (pū-trēs'ēns) [L. *putrescens*, grow rotten] Decay; rottenness.
- putrescine** (pū-trēs'in) A poisonous polyamine formed by bacterial action on the amino acid arginine.
- putrid** (pū'trid) [L. *putridus*] Decayed; rotten; foul.
- Puumala virus** (poom' ä-lä) [*Puumala*, a city in Finland] ABBR: PUUV. The causative agent of nephropathia epidemica. The virus is a member of the Hantavirus family.
- PVA therapy** (pov'ä) [*psoralen* + *ultraviolet A*] The treatment of skin conditions (e.g., psoriasis or cutaneous T-cell lymphoma) with a photosensitizing drug, psoralens, and gradually increasing doses of long-wave ultraviolet light. SEE: *psoralen*; *psoriasis*.
- p value** The probability that a finding has occurred randomly rather than as a result of a treatment or other intervention. In a research study that compares a treated group of patients with a control group exposed only to a placebo, investigators may find that the treated population experienced benefits or suffered more side effects than the controls. Was the observed effect real, or did it occur by chance? The p value of the study helps researchers tell the difference. A p value of 0.5 suggests that there is a 50-50 chance that the findings of the study are significant. A p value of 0.05 (the value customarily used to suggest that research results are statistically significant) means that there is a 5% chance that the results of the study occurred by chance alone. The lower the value, the greater the degree of confidence in the findings: a p value of 0.01, for example, creates more confidence than a p value of 0.05.
- PVC** *polyvinyl chloride*; *premature ventricular contraction*.
- PvO<sub>2</sub>** Symbol for partial pressure of oxygen in mixed venous blood.
- PVP** *polyvinylpyrrolidone*.
- PVP-iodine** *povidone-iodine*.
- PWA** *person with AIDS*.
- PWB** *partial weight bearing*.
- pyarthrosis** (pī'är-thrō'sis) [Gr. *pyon*, pus, + *arthron*, joint, + *osis*, condition] Pus in the cavity of a joint.
- pycno-, pycn-** (pik'nō) [Gr. *pyknos*, thick] Combining forms meaning
- dense, thick, compact, frequent*. SEE: also *pykno-*.
- pycnogenol** (pīk-nōj'ēn-ōl) A mixture of antioxidant chemicals derived from the French maritime pine, *Pinus pinaster* esp. *atlantica*, marketed as "pine bark extract" for a variety of disorders.
- pyechchysis** (pī-ēk'ī-sīs) [Gr. *pyon*, pus, + *ek*, out, + *chein*, to pour] An effusion of pus.
- pyelectasia, pyelectasis** (pī'ē-lēk-tā'zhā, -lēk'tās-is) [Gr. *pyelos*, pelvis, + *ektasis*, dilatation] Dilatation of the renal pelvis.
- pyelitis** (pī'ē-lī'tis) [Gr. *pyelos*, pelvis, + *itis*, inflammation] Inflammation of the pelvis of the kidney and its calices. **pyelitic, adj.**
- calculous p.** Pyelitis resulting from a kidney stone.
- p. cystica** Pyelitis associated with multiple small cysts in the mucosa of the renal pelvis.
- pyelo-** [Gr. *pyelos*, pelvis] Combining form meaning *pelvis*.
- pyelocaliectasis** (pī'ē-lō-kāl'ē-ēk'tā-sīs) [" + *kalyx*, cup, + *ektasis*, dilation] Dilation of the pelvis and calices of the kidney.
- pyelocystitis** (pī'ē-lō-sīs-tī'tis) [" + *kystis*, bladder, + *itis*, inflammation] Inflammation of the renal pelvis and bladder.
- pyelocystostomosis** (pī'ē-lō-sīs'tō-stā-mō'sis) [" + " + "] The surgical establishment of a connection between the kidney and bladder.
- pyelogram** (pī'ē-lō-grām) [Gr. *pyelos*, pelvis, + *gramma*, something written] A radiograph of the ureter and renal pelvis.
- intravenous p.** ABBR: IVP. A pyelogram in which a radiopaque material is given intravenously. Multiple radiographs of the urinary tract taken while the material is excreted provide important information about the structure and function of the kidney, ureter, and bladder. This examination may be used to detect kidney stones and other lesions that may block or irritate the urinary tract.
- pyelography** (pī'ē-lōg'rā-fē) [" + *graphein*, to write] Radiography of the renal pelvis and ureter after injection of a radiopaque contrast medium.
- pyelolithotomy** (pī'ē-lō-lith-ōt'ō-mē) [" + "] The surgical removal of a stone from the renal pelvis.
- pyelonephritis** (pī'ē-lō-nē-frī'tis) [" + *nephros*, kidney, + *itis*, inflammation] Inflammation of the kidney and renal pelvis, usually as a result of a bacterial infection that has ascended from the urinary bladder. Also known as acute infective tubulointerstitial nephritis. SEE: *Nursing Diagnoses Appendix*.
- ETIOLOGY: *Escherichia coli* is the responsible microbe in most cases. Cul-



tures of urine and blood are obtained to guide therapy.

**SYMPTOMS:** This condition is characterized by the sudden onset of chills and fever with dull pain in the flank over either or both kidneys. There is tenderness when the kidney is palpated. There may be signs of cystitis (i.e., urgency with burning, and frequency of urination). Urinalysis and culture findings include pyuria, urine sediment with leukocytes singly, in clumps, or in casts, significant bacteria (more than 100,000 organisms/ul of urine), low specific gravity and osmolarity, slightly alkaline urine pH, and sometimes proteinuria, glycosuria, and ketonuria.

**TREATMENT:** Antibiotics (e.g., fluoroquinolones, sulfa drugs, cephalosporins, or aminoglycosides) that effectively treat common urinary tract pathogens are administered, pending the results of cultures. Antiemetics are given to control nausea and vomiting. If patients are unable to take medications by mouth or if they have predisposing conditions (e.g., pregnancy or diabetes) that increase the likelihood of a bad outcome, they may be admitted to the hospital for observation, monitoring, and hydration.

**PROGNOSIS:** The outcome depends on the character and virulence of the infection, accessory etiological factors, drainage of the kidney, presence or absence of complications, and general physical condition of the patient.

**PATIENT CARE:** Antibiotics and antipyretics are administered as prescribed. The patient is encouraged to complete the full course of antibiotics and drink 2 to 3 L of fluids per day to prevent urinary stasis and to flush by-products of the inflammatory process. Symptoms may disappear after a few days of treatment, and urine become sterile within 48 to 72 hr, however, the prescribed course of therapy should be completed (10 to 14 days). The patient is taught how to correctly collect a mid-stream urine specimen, and urine usually is recultured about 1 week after therapy has concluded. After the completion of therapy, the patient may require urine cultures periodically over the next year to detect recurrent or residual infections, and should report any signs of infection during scheduled follow-up care. Patients requiring prolonged use of indwelling catheters are at increased risk for recurring infections. Strict aseptic technique should be carried out during insertion and care. Females can help to prevent urinary tract infections by wiping the perineum from front to back after defecating, and washing the area before and after sexual intercourse. Chronic pyelonephritis is a persistent kidney inflammation that

may scar the kidneys and lead to chronic renal failure. Its cause may be bacterial, metastatic, or urogenous, and is most common in patients with histories of urinary obstructions or vesicoureteral reflux. Hypertension occurs in late stages of this condition, and effective treatment involves controlling blood pressure, surgically eliminating obstructions and/or correcting anomalies, and treating bacterial infections with long-term antimicrobial therapy.

**pyelonephrosis** (pī'ē-lō-nē-frō'sis) [" + " + *osis*, condition] Any disease of the pelvis of the kidney. SYN: *pyelopathy*.

**pyelopathy** (pī'ē-lōp'āth-ē) [" + *pathos*, disease, suffering] Pyelonephrosis.

**pyeloplasty** (pī'ē-lō-plās'tē) [" + *plastos*, formed] Reparative surgery on the pelvis of the kidney.

**pyeloplication** (pī'ē-lō-plī-kā'shūn) [" + *L. plicare*, to fold] Shortening of the wall of a dilated renal pelvis by making surgical tucks in it.

**pyelostomy** (pī'ē-lōs'tō-mē) [" + *stoma*, mouth] Creation of an opening into the renal pelvis.

**pyelotomy** (pī'ē-lōt'ō-mē) [" + *tome*, incision] Incision of the renal pelvis.

**PATIENT CARE:** All catheters should be secured to the patient to prevent dislodgement. The nurse should assess and record the appearance of the urine, including color, consistency, and amount. Catheter drainage tubing must be kept free of kinks and dependent loops. Catheters should never be clamped. The nurse should monitor and record intake and output. After removal of the catheter, a stoma-bag collection device should be used to collect any drainage and maintain skin integrity while the wound heals.

**pyeloureterectasis** (pī-ē-lō-ūr-ē-tēr-ēk'tā-sis) Dilatation of the pelvis of the kidney and ureter.

**pyemia** (pī-ē-mē-ā) [" + *haima*, blood] A form of septicemia due to the presence of pus-forming organisms in the blood, manifested by formation of multiple abscesses of a metastatic nature.

**SYMPTOMS:** The disease is characterized by intermittent high temperature with recurrent chills; metastatic processes in various parts of the body, esp. in lungs; septic pneumonia; empyema. It may be fatal.

**TREATMENT:** Antibiotics are effective. Prophylactic treatment consists in prevention of suppuration.

**arterial p.** Pyemia resulting from dissemination of emboli from a thrombus in cardiac vessels.

**cryptogenic p.** Pyemia of an origin that is hidden in the deeper tissues.

**metastatic p.** Multiple abscesses resulting from infected pyemic thrombi.

**portal p.** Suppurative inflammation of the portal vein. **pyemic** (-é' mīk), *adj.*  
**Pyemotes** (pī-ě-mō'těz) A genus of mites parasitic on the larvae of insects.

**P. ventricosus** A mite present in the straw of some cereals, contact with which causes a vesiculopapular dermatitis in humans. This is called grain itch.

**pyencephalus** (pī'ěn-séf'á-lūs) [ʹ + *enkephalos*, brain] A brain abscess with suppuration within the cranium. SEE: *pyocephalus*.

**pyg-** SEE: *pygo-*.

**pygal** (pī'gāl) [Gr. *pyge*, rump] Concerning the buttocks. SEE: *steatopygia*.

**pygalgia** (pī-gāl'jě-á) [ʹ + *algos*, pain] Pain in the buttocks.

**pygeum** (pīj'ě-üm) An herbal remedy derived from the African evergreen tree *Prunus africana*. Tea and herbal capsules made from its bark are used in treatment for benign prostatic hyperplasia.

**pygmalionism** (pīg-mā'lě-ön-izm) [named for Pygmalion, a sculptor and king in Gr. mythology, who fell in love with a figure he carved] The psychopathic condition of falling in love with one's own creation.

**pygmy** (pīg'mě) A very small person, a dwarf.

**pygo-, pyg-** Combining forms meaning *buttocks*.

**pykn-** SEE: *pykno-*.

**pyknic** (pik'nīk) [Gr. *pyknos*, thick] Pert. to a body type characterized by roundness of the extremities, stockiness, large chest and abdomen, and tendency to obesity.

**pykno-, pykn-** [Gr. *pyknos*, thick] Combining forms meaning *thick, compact, dense, frequent*. SEE: also *pycno-*.

**pyknocyte** (pik'nō-sīt) [ʹ + *kytos*, cell] A form of spiculed red cell. SEE: *spiculed red cell*.

**pyknodysostosis** (pik'nō-dīs'ōs-tō'sis) [ʹ + *dys*, bad, + *osteon*, bone, + *osis*, condition] An autosomal recessive disease that affects bones and resembles osteopetrosis, but the disease is mild and not associated with hematological or neurological abnormalities. Affected children have short stature, open fontanel, frontal bossing, hypoplastic facial bones, blue sclerae, and dental abnormalities. There may be double rows of malformed teeth. Despite the multiple abnormalities, life span is unaffected. The patient usually seeks medical care because of frequent fractures. The only treatment is surgical correction of deformities and fractures.

**pyknomorphous** (pik'nō-morf'ūs) [ʹ + *morphe*, form] Characterized by compact arrangement of the stainable portions, said esp. of certain nerve cells.

**pyknophrasia** (pik'nō-frā'zě-á) [ʹ + *phrasis*, speech] Thickness of words uttered in speech.

**pyknosis** (pik-nō'sis) [ʹ + *osis*, condition] Thickness, esp. shrinking of cells through degeneration. SYN: *inspissation*.

**pyle-** [Gr. *pyle*, gate] Combining form meaning *orifice*, esp. that of the portal vein.

**pylemphraxis** (pī'lēm-frāk'sis) [ʹ + *emphraxis*, stoppage] Occlusion of the portal vein.

**pylephlebectasia, pylephlebectasis** (pī'lě-flě-běk-tá'zě-á, -běk'tá-sis) [ʹ + *phleps*, vein, + *ektasis*, dilatation] Distention of the portal vein.

**pylephlebitis** (pī'lě-flě-bī'tis) [ʹ + " + *itis*, inflammation] Inflammation of the portal vein, generally suppurative.

**adhesive p.** Thrombosis of the portal vein.

**p. obturans** Pylephlebitis with obstructed flow in the portal vein.

**pylethrombophlebitis** (pī'lě-thrōm'bō-flě-bī'tis) [ʹ + *thrombos*, clot, + *phleps*, vein, + *itis*, inflammation] Thrombosis and inflammation of the portal vein.

**pylethrombosis** (pī'lě-thrōm-bō'sis) [Gr. *pyle*, gate, + *thrombos*, clot, + *osis*, condition] Occlusion of the portal vein by a thrombus.

**pylon** (pī'lōn) A temporary artificial leg.  
**pylorectomy** (pī'lō-rěk'tō-mě) [ʹ + *ektome*, excision] Surgical removal of the pylorus.

**pyloric** (pī-lor'ik) [Gr. *pyloros*, gate-keeper] Pert. to the distal portion of the stomach or to the opening between the stomach and duodenum.

**pyloric obstruction and dilatation** Blockage of the lower orifice of the stomach with consequent hypertrophy and dilatation. Pyloric obstruction increases the resistance offered to the expulsion of food from the stomach. The causes of dilatation are pyloric obstruction, laxness of walls from simple atony, or excessive ingestion of food or drink.

**SYMPTOMS:** The typical findings are dyspepsia, vomiting (occasionally projectile vomiting), wasting, and dehydration. Vomiting may occur long after eating, sometimes several hours or days. Constipation is present. There is bulging over the epigastrium. In thin subjects, the outline of the stomach may be visible. Palpation gives a splashing fremitus. In percussion there is an increased area of gastric tympany. In auscultation, splashing sounds often are audible at some distance.

**TREATMENT:** In acute obstruction, treatment includes nasogastric decompression of the stomach with parenteral fluid administration and gradual resumption of oral feeding. In chronic obstruction (congenital, neoplastic, inflammatory), surgery is indicated.

**PROGNOSIS:** Outcome relates to cause and promptness of treatment. It

is generally favorable in cases of acute dilatation without obstruction.

**pyloric stenosis** Narrowing of the pyloric orifice. In infants, excessive thickening of the pyloric sphincter or hypertrophy and hyperplasia of the mucosa and submucosa of the pylorus are usually responsible. In adults, obstruction of the pylorus usually results from peptic ulcer disease, malignant compression of the gastric outlet, or pneumatosis intestinalis.

**TREATMENT:** In infants, treatment may involve open or laparoscopic division of the muscles of the pylorus. Infantile pyloric stenosis is usually diagnosed in the first 6 months of life when babies have trouble with vomiting after eating, sometimes with projectile vomiting and consequent dehydration. The disease occurs in 2 to 3 infants per 1000 births and is more common in boys than girls. In adults, endoscopic stents may be placed to open malignant obstructions.

**pyloristhenosis** (pī-lor'ī-stēn-ō'sīs) [Gr. *pyloros*, gatekeeper, + *stenos*, narrow] SEE: *pyloric stenosis*.

**pyloritis** (pī'lō-rī'tīs) [ + *itis*, inflammation] Inflammation of the pylorus.

**pyloro-** Combining form meaning *gatekeeper*, applied to the pylorus.

**pylorodiosis** (pī-lō'rō-dī-ō'sīs) [Gr. *pyloros*, gatekeeper, + *diosis*, pushing under] Dilatation of the pylorus of the stomach.

**pyloroduodenitis** (pī-lor'ō-dū'ō-dē-nī'tīs) [ + L. *duodeni*, twelve, + Gr. *itis*, inflammation] Inflammation of the mucosa of the pyloric outlet of the stomach and duodenum.

**pylorogastrectomy** (pī-lor'ō-gās-trēk'tō-mē) [ + *gaster*, belly, + *ektome*, excision] Excision of the pyloric portion of the stomach.

**pyloromyotomy** (pī-lor'ō-mī-ōt'ā-mē) [ + " ] Incision and suture of the pyloric sphincter. It is a treatment for infantile pyloric stenosis. SEE: *pylorotomy*.

**pyloroplasty** (pī-lor'ō-plās'tē) [ + *plassein*, to form] Operation to repair or alter the pylorus, esp. one to increase the caliber of the pyloric opening.

**Finney p.** A side-to-side pyloroplasty in which a single incision opens the pyloric antrum and the proximal duodenum. The two organs are then connected via a U-shaped anastomosis. The procedure is used to treat gastric outlet obstruction.

**Jaboulay p.** A pyloroplasty in which the pyloric antrum and proximal duodenum are opened separately and then joined side-to-side by overlapping them. This procedure is typically used to relieve gastric outlet obstruction.

**pyloroscopy** (pī-lō-rōs'kō-pē) [Gr. *pyloros*, gatekeeper, + *skopein*, to exam-

ine] Fluoroscopic examination of the pylorus.

**pylorospasm** (pī-lor'ō-spāzm) [ + " ] Spasmodic contraction of the pyloric orifice. The usual cause is a disturbance in the motor innervation of the pyloric sphincter. It may occur secondary to lesions of the stomach or duodenum near the pyloric orifice. It may sometimes be mistaken for infantile hypertrophic pyloric stenosis.

**pylorostenosis** (pī-lor'ō-stēn-ō'sīs) [ + *stenos*, narrow] Abnormal narrowing or stricture of the pyloric orifice. SEE: *pyloric stenosis*.

**pylorotomy** (pī-lor-ōt'ō-mē) [ + *tome*, incision] Incision of the pylorus through its muscular layers to the level of the submucosa to relieve hypertrophic stenosis.

**pylorus** (pī-lor'ūs) [Gr. *pyloros*, gatekeeper] 1. The lower portion of the stomach that opens into the duodenum, consisting of the pyloric antrum and pyloric canal. 2. In older texts, a term that may be used for the pyloric orifice or the pyloric sphincter. **pyloric**, *adj.*

**pyocele** (pī'ō-sēl) [Gr. *pyon*, pus, + *kele*, tumor, swelling] A hernia or distended cavity containing pus.

**pyocephalus** (pī'ō-sēf'ā-lūs) [ + *kephale*, head] Purulent infection within the skull.

**pyocolpocele** (pī'ō-kōl'pō-sēl) [ + *kolpos*, vagina, + *kele*, tumor, swelling] A vaginal tumor containing pus. SEE: *pyocolpos*.

**pyocolpos** (pī'ō-kōl'pōs) Accumulation of pus in the vagina.

**pyocyanin** (pī'ō-sī'ā-nīn) A blue cytotoxic crystalline chemical (1-hydroxy-5-methylphenazine) secreted by *Pseudomonas aeruginosa*.

**pyocyst** (pī'ō-sīst) [ + *kystis*, sac] A cyst containing pus.

**pyoderma** (pī-ō-dēr'mā) [ + *derma*, skin] Any acute, inflammatory, purulent bacterial dermatitis.



**p. gangrenosum** A rare, ulcerating skin disease in which the skin is infiltrated by neutrophils. It is often found in people with other underlying illnesses, such as inflammatory bowel disease, rheumatoid arthritis, or some hematological malignancies.

**pyodermatitis** (pī'ō-dēr'mā-tī'tīs) [ + " + *itis*, inflammation] Pyogenic infection of the skin causing a dermatitis.

**pyodermia** (pī'ō-dēr'mē-ā) Any suppurative skin disease.

**pyogenesis** (pī'ō-jēn'ē-sīs) [ + *genesis*, generation, birth] The formation of pus.

**pyogenic** (pī-ō-jēn'īk) [ + *gennan*, to produce] Producing pus.

**pyogenic cocci** Any of a group of genetically unrelated spherical bacteria that produce pus-forming infections. They include *Streptococcus pyogenes*, *Staph-*

*Staphylococcus aureus*, *Neisseria gonorrhoeae*, and *Neisseria meningitidis*.

**pyogenic microorganism** A microorganism that forms pus. The principal ones are *Staphylococcus aureus*, *Streptococcus pneumoniae*, *Streptococcus pyogenes*, *Clostridium perfringens*, *Pseudomonas aeruginosa*, *Neisseria gonorrhoeae*, and *Neisseria meningitidis*. These pathogens stimulate a huge influx of neutrophils to the site. The pus is formed from dead organisms, white blood cells, and other cells destroyed during the immune response.

**pyohemothorax** (pī'ō-hē'mō-thō'rāks) [" + *haima*, blood, + *thorax*, chest] Pus and blood in the pleural cavity.

**pyoid** (pī'oyd) [" + *eidōs*, form, shape] Resembling pus.

**pyolabyrinthitis** (pī'ō-lāb'ī-rīn-thī'tis) [" + *labyrinthos*, maze, + *itis*, inflammation] Inflammation with suppuration of the labyrinth of the ear.

**pyometra** (pī'ō-mē'trā) [" + *metra*, uterus] Retained pus accumulation in the uterine cavity.

**pyometritis** (pī'ō-mē-trī'tis) [" + " + *itis*, inflammation] Inflammation of the uterus with purulent exudate.

**pyonephritis** (pī'ō-nēf-rī'tis) [" + *nephros*, kidney, + *itis*, inflammation] Inflammation of the kidney, suppurative in character.

**pyonephrolithiasis** (pī'ō-nēf'rō-līth-ī'āsīs) [" + " + *lithos*, stone, + *-iasis*, condition] Pus and stones in the kidney.

**pyonephrosis** (pī'ō-nēf-rō'sīs) [" + " + *osis*, condition] Pus accumulation in the pelvis of the kidney.

**pyoovarium** (pī'ō-ō-vā'rē-ūm) [" + LL. *ovarium*, ovary] Abscess formation in an ovary.

**pyopericarditis** (pī'ō-pēr'ī-kār-dī'tis) [" + *peri*, around, + *kardia*, heart, + *itis*, inflammation] Pericarditis with suppuration.

**pyopericardium** (pī'ō-pēr'ī-kār-dē-ūm) Pus formation in the pericardium.

**pyoperitoneum** (pī'ō-pēr'ī-tō-nē'ūm) [Gr. *pyon*, pus, + *peritonaion*, peritoneum] Pus formation in the peritoneal cavity.

**pyoperitonitis** (pī'ō-pēr'ī-tō-nī'tis) [" + " + *itis*, inflammation] Purulent inflammation of the lining of peritoneum.

**pyophthalmia** (pī'ōf-thāl'mē-ā) [" + *ophthalmos*, eye] Pyophthalmitis.

**pyophthalmitis** (pī'ōf-thāl-mī'tis) [" + " + *itis*, inflammation] Suppurative inflammation of the eye. SYN: *pyophthalmia*.

**pyophysometra** (pī'ō-fī'sō-mē'trā) [" + *physis*, air, + *metra*, uterus] Pus and gas accumulation in the uterus.

**pyopneumocholecystitis** (pī'ō-nū'mō-kō-lē-sīs-tī'tis) [" + *pneuma*, air, + *chole*, bile, + *kystis*, sac, + *itis*, in-

flammation] Distention of the gallbladder with air and pus.

**pyopneumocyst** (pī'ō-nū'mō-sīst) [" + " + *kystis*, bladder] A cyst enclosing pus and gas.

**pyopneumohepatitis** (pī'ō-nū'mō-hēp'ā-tī'tis) [" + *pneuma*, air, + *hepar*, liver, + *itis*, inflammation] A liver abscess with gas in the abscess cavity.

**pyopneumopericardium** (pī'ō-nū'mō-pēr'ī-kār-dē-ūm) [" + " + *peri*, around, + *kardia*, heart] Pus and air or gas in the pericardium.

**pyopneumoperitoneum** (pī'ō-nū'mō-pēr'ī-tō-nē'ūm) [" + " + *peritonaion*, peritoneum] Peritonitis with gas and pus in the peritoneal cavity.

**pyopneumoperitonitis** (pī'ō-nū'mō-pēr'ī-tō-nī'tis) [" + " + " + *itis*, inflammation] Pus and air in the peritoneal cavity complicating peritonitis.

**pyopneumothorax** (pī'ō-nū'mō-thō'rāks) [" + " + *thorax*, chest] The presence of pus and gas in the pleural cavity.

**pyoptysis** (pī'ōp'tī-sīs) [" + *ptysis*, spitting] Spitting of pus.

**pyopyelectasis** (pī'ō-pī'ē-lēk'tā-sīs) [" + *pyelos*, pelvis, + *ektasis*, dilation] Purulent fluid in the dilated renal pelvis.

**pyorrhea** (pī'ō-rē-ā) [" + *rhoia*, flow] **1.** A discharge of purulent matter. **2.** A dated term for periodontal disease.

**pyosalpingitis** (pī'ō-sāl'pīn-jī'tis) [Gr. *pyon*, pus, + *salpinx*, tube, + *itis*, inflammation] Retained pus in the oviduct with inflammation.

**pyosalpingo-oophoritis** (pī'ō-sāl'pīn'gō-ō'ōf-ō-rī'tis) [" + " + *oon*, ovum, + *phoros*, a bearer, + *itis*, inflammation] Inflammation of the ovary and oviduct, with suppuration.

**pyosalpinx** (pī'ō-sāl'pīnks) Pus in the fallopian tube.

**pyosemia** (pī'ō-sē'mē-ā) [Gr. *pyon*, pus, + L. *semen*, seed] Pus in the semen.

**pyostatic** (pī'ō-stāt'īk) [" + *statikos*, standing] **1.** Preventing pus formation. **2.** An agent preventing the development of pus.

**pyothorax** (pī'ō-thō'rāks) [" + *thorax*, chest] Empyema.

**pyourachus** (pī'ō-ū'rā-kūs) [" + *ourachos*, fetal urinary canal] Accumulation of pus in the urachus.

**pyoureter** (pī'ō-ū-rē'tēr) [" + *oureter*, ureter] Pus collection in the ureter.

**pyoverdin** (pī-ō-vēr'dīn) An iron-binding molecule, produced by *Pseudomonas* species, that competes with transferrin for host iron. It contributes to the virulence of *Pseudomonas* infections.

**pyovesiculosis** (pī'ō-vē-sīk'ū-lō'sīs) [" + L. *vesiculus*, a small vessel, + Gr. *osis*, condition] Pus collection in the seminal vesicles.

**pyoxanthin(e)** (pī'ō-zān'thīn) [" + *xanthos*, yellow] A yellow pigment result-

ing from oxidation of pyocyanin, sometimes present in pus.

**pyramid** (pī'r-ā-mīd) [Gr. *pyramis*, a pyramid] **1.** A solid on the base with three or more triangular sides that meet at an apex. **2.** Any part of the body resembling a pyramid. **3.** A compact bundle of nerve fibers in the medulla oblongata. **4.** The petrous portion of the temporal bone.

**p. of light** The triangular light reflex from the tympanic membrane of the ear.

**p. of the medulla** One of a pair of elongated tapering prominences on the anterior (i.e., ventral) surface of the medulla oblongata, composed of descending corticospinal fibers.

**renal p.** The inner mass of the kidney consisting of 5 to 11 conical renal pyramids separated by renal columns. The renal pyramids contain the loops of Henle and the collecting ducts. The renal columns contain interlobar arteries and veins.

**p. of the thyroid** A conical process sometimes present, extending cephalad from the isthmus of the thyroid gland.

**pyramidal** (pī-rām'ī-dāl) [L. *pyramidalis*] In the shape of a pyramid.

**pyramidalis** (pī-rām'ī-dāl'īs) [L.] The muscle that arises from the crest of the pubis and is inserted into the linea alba upward about halfway to the navel.

**pyramidal system** The direct output from the motor cortices of the cerebral hemispheres to the brainstem and spinal cord. It deals with the regulation of fine muscle movements.

**pyramidotomy** (pī-rām-ī-dōt'ō-mē) [Gr. *pyramis*, a pyramid, + *tome*, incision] Excision of the pyramidal tracts of the spinal cord in order to alleviate involuntary muscular movements.

**pyran** (pī'rān) The compound C<sub>5</sub>H<sub>6</sub>O, the ring structure of which consists of five carbon atoms and one oxygen atom.

**pyranose** (pī'rā-nōs) A cyclic sugar or glycoside with a structure similar to a pyran.

**pyretic** (pī-rēk'tik) Pert. to fever.

**pyrenemia** (pī'rē-nē'mē-ā) [Gr. *pyren*, fruit stone, + *haima*, blood] A condition in which there are nucleated red cells in the blood.

**pyretherapy, pyrotherapy** (pī'rē-thēr'ā-pē) [Gr. *pyr*, fever, + *therapeia*, treatment] Treatment by artificially raising the patient's temperature.

**pyrethrins** (pī-rē'thrinz) The general name given to substances derived from pyrethrum flowers (chrysanthemums); used as insecticides.

**pyretic** (pī-rēt'ik) [Gr. *pyretos*, fever] Pert. to fever.

**pyreto-** (pī-rēt'ō) Prefix indicating *fever*.

**pyretogenic bacteria** (pī-rē-tō-jēn'ik) Pathogenic bacteria causing fever.

**pyretolysis** (pī'rē-tōl'ī-sīs) [r' + *lysis*, dissolution] **1.** Reduction of fever.

**2.** Lysis of symptoms of a disease process that is accelerated by fever.

**pyretotyphosis** (pī'rē-tō-tī-fō'sīs) [r' + *typhosis*, delirium] The delirious or stuporous condition characteristic of high fever.

**pyrexia** (pī-rēk'sē-ā) [Gr. *pyressein*, to be feverish] Fever.

**pyrexin** (pī'rēks'in) Pyrogen.

**pyridine** (pēr'ī-dēn) A colorless, volatile liquid with a charred odor. It is obtained by dry distillation of nitrogen-containing organic matter. It is used as an industrial solvent.

**pyridoxal 5-phosphate** (pīr-i-dōk'sāl) A derivative of pyridoxine. It serves as a coenzyme of certain amino-acid decarboxylases in bacteria, and in animal tissues of 3,4-dihydroxyphenylalanine (dopa) decarboxylase.

**pyridoxamine** (pī'r'ī-dōks'ā-mēn") One of the vitamin B<sub>6</sub> group; a 4-aminoethyl analog of pyridoxine.

**4-pyridoxic acid** (pī'r'ī-dōks'ik) The principal end product of pyridoxine metabolism, excreted in human urine.

**pyridoxine hydrochloride** (pī-rī-dōks'ēn) One of a group of substances, including pyridoxal and pyridoxamine, that make up vitamin B<sub>6</sub>. SEE: *vitamin B<sub>6</sub> in Vitamins Appendix*.

**pyriform** (pī'r'ī-fōrm") [L. *pirum*, pear, + *forma*, shape] Shaped like a pear. Also spelled *piriform*.

**pyrimidine** (pī-rim'id-in) The parent of a group of heterocyclic nitrogen compounds, C<sub>4</sub>H<sub>4</sub>N<sub>2</sub>. Cytosine and thymine are found in DNA; cytosine and uracil, in RNA.

**pyrithiamine** (pī'r'ī-thī'ā-mēn") A synthetic analog of thiamine that blocks thiamine transport. It was used experimentally in studies of human lymphoblasts to mimic nutritional diseases such as beriberi and Wernicke-Korsakoff syndrome, two forms of thiamine deficiency.

**pyro-** (pī'rō) [Gr. *pyr*, fire] Prefix meaning *heat, fire*.

**pyrogallol** (pī'rō-gāl'ol") C<sub>6</sub>H<sub>6</sub>O<sub>3</sub>; a toxic chemical derived from gallic acid.

**pyrogen** (pī'rō-jēn) [Gr. *pyr*, fire, + *gennan*, to produce] Any agent that causes fever. It may be exogenous, such as bacteria or viruses, or endogenous, produced in the body. The latter are usually in response to stimuli accompanying infection or inflammation. SYN: *pyrexin; pyrotoxin*. **pyrogenic** (pī'rō-jēn'ik), *adj.*



A fluid that has been opened previously and allowed to stand should not be given intravenously, even though the top may have been closed tightly, because pyrogens may have formed within it.



- leukocytic p.** A protein released by phagocytes into the blood during a fever. It raises body temperature by acting on the thermoregulatory centers of the anterior hypothalamus
- pyroglobulinemia** (pī'rō-glōb'ū-lī-nē'mē-ă) [p + *globulus*, globule, + *haima*, blood] An obsolete term for *paraproteinemia*.
- pyrolysis** (pī-rōl'ī-sīs) [p + *lysis*, dissolution] The decomposition of organic matter when there is a rise in temperature.
- pyromania** (pī'rō-mā'nē-ă) [p + *mania*, madness] Fire madness; a mania for setting fires or seeing them.
- pyrometer** (pī-rōm'ē-tēr) [p + *metron*, measure] A device for measuring a very high temperature.
- pyronine** (pī'rō-nīn) A histological stain used to demonstrate the presence of RNA and DNA.
- pyrophosphatase** (pī'rō-fōs'fā-tās) An enzyme that catalyzes splitting of phosphoric groups.
- pyrophosphate** (pī'rō-fōs'fāt) Any salt of phosphoric acid.
- pyrosis** (pī-rō'sīs) [Gr. *pyrosis*, burning] Heartburn.
- PATIENT CARE:** The caregivers assess the meaning of this term to the patient and determine the exact location, timing, and duration of discomfort. Position changes exaggerate discomfort, precipitating factors (such as type and amount of food), method of relief, and other factors that aggravate the discomfort are determined (increased intra-abdominal pressure related to pregnancy, obesity, constipation, tight clothing, vigorous exercise, etc). Diagnostic studies such as barium swallow and endoscopy may be carried out to ascertain the cause (gastro-esophageal reflux, peptic ulcer, etc). Treatment may include antacids and absorbents, H<sub>2</sub> receptor site inhibitors, proton-pump inhibitors, and antibiotics to treat *Helicobacter pylori*. The patient is advised to sit upright after meals, take small frequent feedings, avoid highly-seasoned foods, acidic juices, alcoholic drinks, bedtime snacks, and food high in fat or carbohydrates. Meals should be taken 2 to 3 hours prior to retiring, and elevation of the head of the bed often helps to relieve symptoms.
- pyrotic** (pī-rōt'ik) [Gr. *pyrotikos*]  
**1.** Caustic; burning. **2.** Pert. to pyrosis.
- pyrotoxin** (pī'rō-tōk'sīn) [Gr. *pyr*, fire, + *toxikon*, poison] Pyrogen.
- pyroxylin** Nitrocellulose in ether or acetone. It is a toxic and extremely flammable white fiber used in lacquers, plastics, and resins, among other applications.
- pyrrole** (pēr'ōl) A heterocyclic substance that provides the building blocks for a large number of vital compounds such as hemoglobin, chlorophyll, and bile acids. It is a colorless liquid with the odor of chloroform.
- pyrrolidine** (pī-rōl'ī-dīn) Tetramethylamine, (CH<sub>2</sub>)<sub>4</sub>NH. It may be obtained from pyrrole or tobacco, which contains pyrrole.
- pyruvate** (pī-roo'vāt) A salt or ester of pyruvic acid.
- pythogenesis** (pī'thō-jēn'ē-sīs) [Gr. *pythein*, to rot, + *genesis*, generation, birth] Originating in decaying matter.
- pyuria** (pī-ū'rē-ă) [Gr. *pyon*, pus, + *ouron*, urine] Pus in the urine; evidence of renal or bladder disease; usually a urinary tract infection.