



Σ The capital of the Greek letter sigma. In statistics, this is the symbol for summation.

σ Sigma, the 18th letter of the Greek alphabet. In statistics, this is the symbol for standard deviation.

S [L. *signa*, mark, or let it be written] **1.** Symbol for the element sulfur. **2.** In prescription writing, the symbol indicating the instructions to the patient that the pharmacist will place on the dispensed medicine. **3.** *Smooth*, in reference to bacterial colonies. **4.** *Spherical or spherical lens*. **5.** *Subject* (pl. Ss); a participant in an experiment. **6.** Symbol for siemens.

s L. *semis*, half; *sinister*, left.

S, s Symbol for [L.] *sine*, without; used as a form of shorthand in hospital charts and clinical records.

S₁, S₂, etc. *first sacral nerve, second sacral nerve*, and so forth.

S₁, S₂ Normal first and second heart sounds.

S₃ Ventricular gallop heard after S₂, an abnormal heart sound.

S₄ Atrial gallop, heard before S₁, an abnormal heart sound.

S-A, SA, S.A. *sinoatrial*.

SAARD *slow-acting antirheumatic drug*.

Sabiá virus (să-bē-ă') An arenavirus that causes Brazilian hemorrhagic fever, a potentially fatal acute febrile disease. The reservoir for the virus is unknown. Ribavirin, which is effective against Lassa fever, also caused by an arenavirus, may be effective in this illness.

Sabin vaccine (să-bĭn) [Albert Bruce Sabin, Russian-born U.S. virologist, 1906–1993] SEE: *Live oral poliovirus vaccine*.

Sabouraud's dextrose agar (să-boo-rōz') An acidic agar with a high dextrose content. It is used in microbiology to cultivate fungi and yeasts.

sabulous (săb'ū-lūs) [L. *sabulosus*, sand] Gritty; sandy.

sac (săk) [L. *saccus*, sack, bag] A bag-like part of an organ, a cavity or pouch, sometimes containing fluid. SYN: *sacculus*. SEE: *cyst*.

air s. Alveolar sac.

allantoic s. The expanded end of the allantois, well developed in birds and reptiles.

alveolar s. The terminal portion of an air passageway within the lung. Its wall is made of simple squamous epithelium and is surrounded by pulmonary capillaries. This is the site of gas exchange. Each alveolar sac is con-

nected to a respiratory bronchiole by an alveolar duct. SYN: *air sac*.

amniotic s. The inner fetal membrane that encloses the developing fetus and produces amniotic fluid. SEE: *chorion*.

chorionic s. The outer fetal membrane that encloses the developing embryo.

conjunctival s. The cavity, lined with conjunctiva, that lies between the eyelids and the anterior surface of the eye.

dental s. The mesenchymal tissue surrounding a developing tooth.

endolymphatic s. The expanded distal end of the endolymphatic duct.

heart s. The pericardium.

hernial s. In the peritoneum, a sac-like protrusion containing a herniated organ. SEE: *hernia*.

lacrimal s. The upper dilated portion of the nasolacrimal duct situated in the groove of the lacrimal bone. The upper part is behind the internal tarsal ligament. It is 12 to 15 mm long.

lesser peritoneal s. Omental bursa.

peritoneal s. The enclosed, transparent mesothelial sac that is squeezed between the abdominal wall and the abdominal viscera.

vitelline s. Yolk s.

yolk s. In mammals, the embryonic membrane that is the site of formation of the first red blood cells and the cells that will become oogonia or spermatogonia. SYN: *vitelline sac*. SEE: *embryo* for *illus*.

saccades (să-kăds') [Fr. *saccade*, jerk] Fast, involuntary movements of the eyes as they change from one point of gaze to another. SEE: *nystagmus*; *vergence*. **saccadic**, *adj.*

saccate (săk'ăt) [NL. *saccatus*, baglike]

1. Encysted. **2.** In bacteriology, making a sac shape, as in a type of liquefaction.

saccharase (săk'ă-rās) [Sanskrit *sarkara*, sugar] An enzyme such as sucrase that catalyzes the hydrolysis of a disaccharide to monosaccharides.

saccharated (săk'ă-răt'əd) Containing sugar.

saccharide (săk'ă-rĭd) A group of carbohydrates that includes sugars. It includes: monosaccharides (single sugars), disaccharides (two sugars, covalently linked), oligosaccharides (a small number of linked sugars), and polysaccharides (multiple covalently linked sugars).

saccharin (săk'ă-rĭn) C₇H₅NO₃S; a sweet, white, powdered, synthetic product derived from coal tar, 300 to 500

times sweeter than sugar, used as an artificial sweetener.

saccharine (săk'ă-rĭn, -rĭn) [L. *saccharum*, sugar] Of the nature of, or having the quality of, sugar. SYN: *sweet*.

saccharo- Combining form meaning *sugar*.

saccharolytic (săk'ă-rō-lĭt'ĭk) [" + Gr. *lysis*, dissolution] Able to split up sugar.

Saccharomyces (săk'ă-rō-mĭ'sēz) [Sanskrit *sarkara*, sugar, + Gr. *mykes*, fungus] Yeast (1).

Saccharomyces cerevisiae (sēr'ă-vĭz'ē-ē) [L. "of beer"] A yeast used in recombinant DNA technology to manufacture proteins for medical use (e.g., in vaccine components).

saccharomycosis (săk'ă-rō-mĭ-kō'sĭs) [" + " + *osis*, condition] Any disease caused by yeasts (saccharomycetes).

saccharum (săk'ă-rŭm) [L.] Sugar.

sacciform (săk'sĭ-form) [L. *saccus*, sack, bag, + *forma*, shape] Bag-shaped or saclike. SYN: *encysted*.

saccular (săk'ŭ-lăr) [NL. *sacculus*, small bag] Sac-shaped or saclike.

sacculated (săk'ŭ-lăt'ĕd) [NL. *sacculus*, small bag] Consisting of small sacs or saccules.

sacculation (săk'ŭ-lă'shŭn) **1.** Formation into a sac or sacs. **2.** Group of sacs, collectively.

sacculle (săk'ŭl) [NL. *sacculus*, small bag] **1.** A small sac. SYN: *sacculus*. **2.** The smaller of two sacs of the vestibular labyrinth in the vestibule of the ear. It communicates with the utricle, cochlear duct, and endolymphatic duct, all of which are filled with endolymph. In its wall is the macula sacculi, a sensory area containing hair cells that respond to gravity or bodily movement. SEE: *labyrinth* for illus.

laryngeal s. A small diverticulum extending ventrally from the laryngeal ventricle lying between the ventricular fold and the thyroarytenoid muscle.

sacculocochlear (săk'ŭ-lō-kōk'lē-ăr) [" + Gr. *kokhlos*, land snail] Concerning the sacculle and cochlea of the ear.

sachet (să-shă') [French, lit. "little sack"] Any material, e.g., paper, foil, or plastic, used to package doses of medication.

SACH foot *Solid ankle cushion heel* foot; a prosthetic (artificial) foot that has no definite ankle joint but is designed to absorb shock and allow movement of the shank over the foot during ambulation.

sacrad (să'krăd) [L. *sacrum*, sacred, + *ad*, toward] Toward the sacrum.

sacral (să'krăl) [L. *sacralis*] Relating to the sacrum.

sacral flexure Rectal curve in front of the sacrum.

sacralgia (să-krăl'jē-ă) [L. *sacrum*, sacred, + Gr. *algos*, pain] Pain in the sacrum.

sacral index Sacral breadth multiplied by 100 and divided by sacral length.

sacralization (să'krăl-ĭ-ză'shŭn) Fusion of the sacrum and the fifth lumbar vertebra.

sacral nerves Five pairs of spinal nerves, the upper four of which emerge through the posterior sacral foramina, the fifth pair through the sacral hiatus (termination of the sacral canal). All are mixed nerves (motor and sensory).

sacreotomy (să-krĕk'tō-mē) [L. *sacrum*, sacred, + Gr. *ektome*, excision] Excision of part of the sacrum.

sacro- (să'krō) Combining form meaning *sacrum*.

sacroanterior (să'krō-ăn-tē'rē-or) [L. *sacrum*, sacred, + *anterior*, before] Denoting intrauterine fetal position in which the fetal sacrum is directed anteriorly.

sacrococcygeal (să'krō-kōk-sĭj'ē-ăl) [" + Gr. *kokkyx*, coccyx] Concerning the sacrum and coccyx.

sacrococcygeus (săk'rō-kōk-sĭj'ē-ŭs) One of two small muscles (anterior and posterior) extending from the sacrum to the coccyx.

sacrocoxalgia (să'krō-kōks-ăl'jē-ă) [" + *coxa*, hip, + Gr. *algos*, pain] Pain in the sacroiliac joint, usually owing to inflammation. SEE: *sacrocoxitis*.

sacrocoxitis (să'krō-kōks-ĭ'tĭs) [" + " + Gr. *itis*, inflammation] Inflammation of the sacroiliac joint. SEE: *sacrocoxalgia*.

sacrodynia (să'krō-dĭn'ē-ă) [" + *odyne*, pain] Pain in the region of the sacrum.

sacroiliac (să'krō-ĭl'ē-ăk) [" + *iliacus*, hipbone] Of, or pert. to, the sacrum and ilium.

sacroiliitis (să'krō-ĭl'ē-ĭ'tĭs) [" + " + Gr. *itis*, inflammation] Inflammation of the sacroiliac joint.

sacrolisthesis (să'krō-lis-thē'sĭs) [" + Gr. *olisthesis*, a slipping] A deformity in which the sacrum is anterior to the fifth lumbar vertebra. SEE: *spondylolisthesis*.

sacroposterior (să'krō-pōs-tē'rē-or) [" + *posterus*, behind] Denoting intrauterine fetal position in which the fetal sacrum is directed posteriorly.

sacrospinalis (să'krō-spĭ-năl'ĭs) [" + *spina*, thorn] A large muscle group lying on either side of the vertebral column extending from the sacrum to the head. Its two chief components are the iliocostalis and longissimus muscles.

sacroto (să-krōt'ō-mē) [" + Gr. *tome*, incision] Surgical excision of the lower part of the sacrum.

sacrum (să'krŭm) [L., sacred] The triangular bone situated dorsal and caudal from the two ilia between the fifth lumbar vertebra and the coccyx. It is formed of five united vertebrae and is wedged between the two innominate bones, its articulations forming the sacroiliac

joints. It is the base of the vertebral column and, with the coccyx, forms the posterior boundary of the true pelvis. The male sacrum is narrower and more curved than the female sacrum. SYN: *sacral bone*. SEE: *illus.*

sactosalpinx (săk'tō-săl'pinks) [Gr. *saktos*, stuffed, + *salpinx*, tube] A dilated fallopian tube owing to retention of secretions, as in pyosalpinx or hydrosalpinx.

SAD (säd) *seasonal affective disorder; source-to-axis distance.*

saddle A surface or structure that resembles a seat used to ride a horse. The base of artificial dentures is often referred to as a saddle.

s. area The portion of the buttocks, perineum, and thighs that comes in contact with the seat of the saddle when one rides a horse.

s. back Lordosis.

S-adenosylmethionine (ă-dĕn'ō-sīl'mĕ-thī'ū-nĕn") ABBR: SAM-e. A compound that is synthesized naturally in the central nervous system when folate and vitamin B₁₂ levels are adequate. It is involved in the methylation of neurotransmitters, amino acids, proteins, phospholipids, and other neurochemicals. The chemical is used as a treatment for depression, liver disease, and osteoarthritis. It is an active sulfonium form of methionine that acts as a methyl group donor in various reactions

(such as the formation of epinephrine or creatine).

sadism (să'dīzm, säd'īzm) [Comte Donatien Alphonse François de Sade, Marquis de Sade, 1740–1814] Conscious or unconscious sexual pleasure derived from inflicting mental or physical pain on others. SEE: *algolagnia; masochism.*

sadist (să'dīst, säd'īst) One who practices sadism.

sadness A normal emotional feeling of dejection or melancholy that one may experience after an unhappy event.

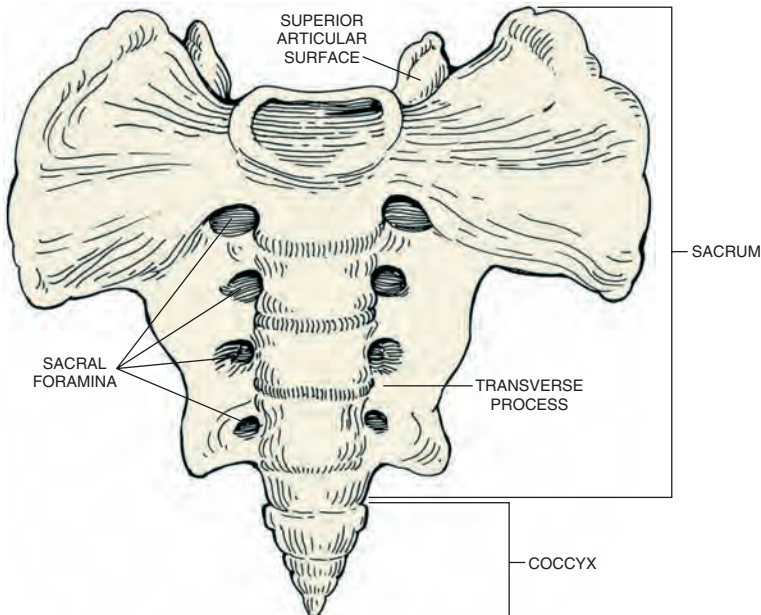
sadomasochism (să'dō-măs'ĕ-kīzm, säd'ō-măs'ĕ-kīzm) Sexual pleasure related to both sadism and masochism.

sadomasochist (să'dō-măs'ĕ-kīst) One whose personality includes sadistic and masochistic components.

Saemisch's ulcer (să'mish-ĕs) [Edwin Theodor Saemisch, Ger. ophthalmologist, 1833–1909] Serpiginous infectious ulcer of the cornea.

safelight (săf'lit) A darkroom device that emits a light of a specified wavelength that causes less fogging of undeveloped film than white light does.

safe period The time during the menstrual cycle when conception is allegedly not possible. Because of the great variability of the menstrual cycle, it is either extremely difficult or impossible to predict the portion of the cycle in which intercourse may take place with no chance of conception.



SACRUM AND COCCYX
(ANTERIOR VIEW)

safe sex, safer sex The practice of protecting oneself and one's partner(s) (as much as one can) from sexually transmitted diseases (STDs), including chlamydia, gonorrhea, trichomoniasis, syphilis, herpesviruses, hepatitis viruses, and human immunodeficiency virus, or from unwanted pregnancy. Some experts find the term to be unsatisfactory, and contend that all forms of sexual behavior carry some risk or infection, injury, or pregnancy. Safer sexual practices involve avoiding contact with one's partner's blood or body fluids (e.g., seminal fluid) by wearing condoms during any form of oral, vaginal, or anal intercourse. The risks of transmitting STDs may be further classified as follows: *Safer*: Celibacy; masturbation; dry kissing; masturbation of a partner on healthy, intact skin; oral sex with use of a condom; touching; fantasy. *Possibly Safe*: Condom-protected vaginal or anal intercourse. *Risky*: Wet kissing, oral sex (without a dental dam or latex or plastic barrier or condom), masturbation of a woman without a latex barrier or use of latex gloves, masturbation on open or broken skin, and unprotected sex of any kind.



1. Alcohol and psychoactive drugs may impair one's judgment regarding the practice of safe sex, resulting in engagement in risky sexual activities.

2. If either partner has evidence of any infection, condoms should always be used even though failure rates for condoms vary from 2% to 12%, depending on the user's skill and experience. Any person having casual sexual contacts should avoid anal intercourse even with a condom, because of the high risk of this type of sexual activity and the low but finite condom-failure risk.

SEE: *AIDS*; *condom*; *sexually transmitted disease*.

safety (sāf'tē) [ME. *saufte*, safety, health] **1.** A practice that ensures protection from harm or injury. **2.** The condition of being protected. **3.** A device that prevents the unintended discharge of a firearm. **safe** (sāf), *adj.*

safety alert A report issued by a manufacturer of drugs or medical products about the risks associated with those drugs or products. SEE: *black box warning*.

safflower oil SEE: *under oil*.

safranin, safranin O A histological stain used in microscopy to highlight cell nuclei by counterstaining them red. It is used for many purposes, including the gram staining of body fluid specimens.

sagittal (sāj'i-tāl) [L. *sagittalis*] Arrowlike; in an anteroposterior direction.

sago (sā'gō) [Malay *sagu*] A substance prepared from various palms, consisting principally of starches; used as a demulcent and as a food with little residue.

Saint John's wort An herbal remedy (*Hypericum perforatum*) used to treat mild to moderate depression.



Caution should be used since this remedy interacts with many other medications.

SEE: *illus.*



SAINT JOHN'S WORT

Saint Vitus' dance Sydenham's chorea.

sal (sāl) [L.] Salt or a saltlike substance. **s. ammoniac** Chloride of ammonia.

salacious (sē-lā'shūs) [L. *salax*, lustful] Lustful or inciting to lust.

Salem sump tube A double-lumen nasogastric tube with an air vent, used to drain gastric or refluxed intestinal secretions or ingested air. The vent protects against damage to the gastric mucosa while facilitating drainage.

salicylate (sāl'i-sil'āt, sāl-is'il-āt) Any salt of salicylic acid.

sodium s. $C_7H_5NaO_3$, a white crystalline substance with a disagreeable, even nauseating, taste; used to reduce pain and temperature. SEE: *acetylsalicylic acid*. **salicylated** (-āt-id), *adj.*

salicylic acid (sāl'i-sil'ik) $C_7H_6O_3$; a white crystalline acid derived from phenol used to make aspirin, as a preservative and flavoring agent, and in the topical treatment of some skin conditions, such as warts and wrinkles. SEE: *chemical peeling*.

salicylism (sāl'i-sil'izm) Intoxication caused by an overdose of salicylic acid or its derivatives.

salicyluric acid (sāl'i-sil'ū'rik) Acid found in the urine after an individual takes salicylic acid or its derivatives.

salient (sā'lē-ēt) [L. *salio*, to spring, jump] Prominent, conspicuous.

saline (sā'lin, sā'lēn) [L. *salinus*, of salt] Containing or pert. to salt; salty.

s. cathartic A salt, such as epsom salts, used to produce evacuation of the bowel.

hypertonic s. An aqueous solution of sodium chloride of greater than 0.85%.

hypotonic s. An aqueous solution of sodium chloride of less than 0.85%.

saline load test The injection of normal saline into a vein or body part for diagnostic purposes.

PATIENT CARE: Intravenous saline load tests (fluid bolus) are used in cardiology to raise a person's blood pressure or the assess response to salty fluids in a patient with prerenal azotemia. In wound care, saline loading may be used to determine if a laceration has entered a nearby joint and therefore whether orthopedic surgery may be needed to repair the injury.

salinometer (sāl'i-nōm'ē-tēr) [L. *salinus*, of salt, + *metron*, measure] An instrument for determining the salt content of a solution.

saliva (sā-lī'vā) [L., spittle] Salivary gland and oral mucous gland fluid; the secretion that begins the process of digesting food. Saliva moistens food for tasting, chewing, and swallowing; initiates digestion of starches; moistens and lubricates the mouth; and acts as a solvent for excretion of waste products. SYN: *spit* (1); *spittle*.

CHARACTERISTICS: It is normally tasteless, clear, odorless, viscid, and weakly alkaline, being neutralized after being acted on by gastric acid in the stomach. Its specific gravity is 1.002 to 1.006. The amount secreted in 24 hr is estimated to be 1500 ml. The flow varies from 0.2 ml/min from resting glands to 4.0 ml/min with maximum secretion.

COMPOSITION: Saliva is 99.5% water. Inorganic constituents include salts (chlorides, carbonates, phosphates, sulfates) and dissolved gases. Organic constituents include enzymes (amylase and lysozyme), proteins (mucin, albumin, and globulins), small amounts of urea, and unusual waste products (e.g., acetone). Epithelial cells and leukocytes are also present.

DIAGNOSTIC TESTING: Like urine and blood, saliva is readily accessible and easy to transport and store. As a result it has become a target for clinical laboratory testing. In the year 2000, U.S. Food and Drug Administration–approved diagnostic tests on saliva include assays for antibodies to human immunodeficiency virus, estrogen levels, drugs of abuse, and alcohol levels. Other tests that are readily available but not FDA-approved include assays for hepatitis virus infections, prostate-specific antigen, and cholesterol.

artificial s. An aqueous solution or

gel that is useful in treating excessive dryness of the mouth (xerostomia). SYN: *saliva substitute*.

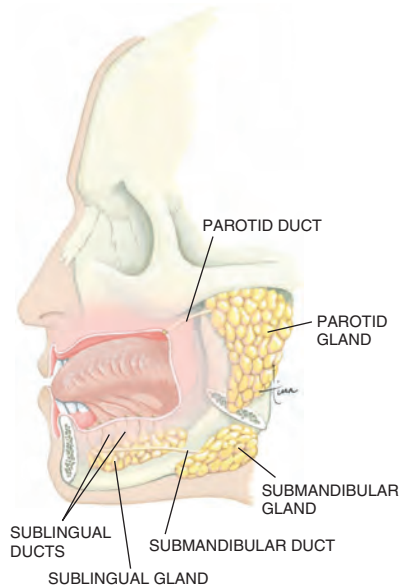
s. substitute Artificial saliva.

saliva ejector A device used during dental procedures to remove saliva.

salivant (sāl'i-vānt) [L. *saliva*, spittle] Something that stimulates the flow of saliva.

salivary (sāl'i-vēr-ē) [L. *salivarius*, slimy] Pert. to, producing, or formed from saliva.

salivary gland Any of the glands near the oral cavity that secrete saliva. The major glands are paired and include the parotid, below the ear and inside the ramus of the mandible; the sublingual, below the tongue in the anterior floor of the mouth; and the submandibular, below the posterior floor of the mouth, medial to the body of the mandible. Minor salivary glands are numerous in the oral cavity and are named according to their locations: lingual, sublingual, palatal, buccal, labial, and glossopharyngeal. SEE: *illus.*



SALIVARY GLANDS

Salivary secretion is under nervous control, reflexly initiated by mechanical, chemical, or radiant stimuli acting on gustatory receptors (taste buds) in the mouth, olfactory receptors, visual receptors (eyes), or other sense organs. Secretion may also occur as a result of conditioned reflexes, as when one thinks about food or hears a dinner bell. The nerve supply of the salivary glands is from the facial and glossopharyngeal nerves, which are parasympathetic and

increase secretion, and from the sympathetic nerves, which decrease secretion. The blood supply is from branches of the external carotid artery.

salivation (säl'ī-vā'sh'ūn) [LL. *salivatio*, to spit out] 1. The act of secreting saliva. 2. Excessive secretion of saliva. SYN: *ptyalism*.

salivatory (säl'ī-vā-tor'ē) Producing the secretion of saliva.

Salk vaccine (sölk) [Jonas E. Salk, U.S. microbiologist, 1914–1995] The first successful vaccine against poliomyelitis. It is now the only polio vaccine administered in the U.S.

Salla disease (säl'a) [Salla, a municipality in Finnish Lapland] A rare form of autosomal recessive mental retardation in which children develop poor muscle tone in the first years of life, ataxia, seizures, and coarsened facial features, among other variably expressed deficits. It is one of the lysosomal storage disorders.

sallow (säl'ō) [AS. *salō*] A sickly yellow color, usually describing complexion or skin color.

salmeterol (säl-mē-tēr'al) A long-acting β_2 -agonist used to treat patients with reactive airway disease. Its use is associated with decreased dependence on short-acting beta agonists, decreased nocturnal asthma, and decreased need for steroids in the treatment of asthma.

salmin(e) (säl'mēn, -mīn) [L. *salmo*, salmon] $C_{30}H_{57}N_{14}O_6$; a toxic protamine obtained from the spermatozoa of salmon. SEE: *protamine*; *protein*.

Salmonella (säl'mō-nēl'ă) [Daniel Elmer Salmon, U.S. veterinarian, 1850–1914] A genus of gram-negative, motile bacilli of the family Enterobacteriaceae. More than 1400 species have been classified. Several species are pathogenic, some producing mild gastroenteritis and others a severe and often fatal food poisoning. Those persons preparing food should cook all foods from animal sources thoroughly, refrigerate leftover cooked foods during storage, and wash hands before and after handling foods. Persons should avoid ingesting raw eggs in any form and using cracked eggs. SEE: ; *salmonellosis*.

PATIENT CARE: Patients who have contracted salmonella should drink clear fluids until abdominal pain has subsided. Fluid and electrolyte balance is monitored, hydration is maintained, and supportive therapy is maintained as indicated. Antimicrobial therapy is prescribed based on organism sensitivity. Contact precautions are used if the patient is diapered or incontinent; otherwise, standard precautions suffice, with gloves and gown used when disposing of feces or fecally contaminated objects. Precautions should continue until three consecutive stool cultures are

negative for salmonella. Patients whose stool cultures remain positive should be taught correct hand hygiene, should avoid preparing uncooked foods, and should not be employed in any capacity that involves handling food until cultures become negative. All cases of salmonella should be reported to the state health department.

S. arizonae A species that may infect animals and humans and cause gastroenteritis, urinary tract infection, bacteremia, meningitis, osteomyelitis, and brain abscess.

S. choleraesuis A species often found to be the cause of septicemia.

S. enteritidis A species that commonly causes gastrointestinal infections. Approx. 10% to 20% of food poisoning cases are caused by *S. enteritidis*. The organism lives in the ovaries of chickens and contaminates eggs before the shells are formed. The infection is passed to humans when they eat raw eggs (e.g., in homemade ice cream, salad dressings, eggnog) or cooked eggs in which the yolk is still runny. It also lives in the intestinal tracts of animals and may be found in water or meat that is contaminated with feces and is inadequately washed and cooked. Infants, elderly persons, and immunocompromised patients are at greatest risk. SEE: *diarrhea*; *raw egg*; *enterocolitis*.

S. paratyphi A group of organisms of *Salmonella*, types A, B, and C, that cause paratyphoid fever.

S. typhi A species causing typhoid fever in humans.

S. typhimurium A species frequently isolated from persons having acute gastroenteritis.

salmonellosis (säl-mō-nē-lō'sis) Infection with gram-negative bacteria of the genus *Salmonella*. In the U.S., the most common infection is acute gastroenteritis caused by *S. enteritidis*, *S. typhimurium*, or other strains. Typhoid fever, found in developing countries with inadequate sanitation, is caused by *S. typhi*.

SYMPTOMS: Salmonella gastroenteritis is characterized by fever, nausea and vomiting, watery diarrhea, and abdominal cramps 12 to 72 hr after consuming contaminated food or water. The illness usually is self-limiting and lasts from 4 to 7 days.

TREATMENT: Unless severe, salmonella gastroenteritis is treated with fluid replacement and antimotility drugs; antibiotics are not used. For immunocompromised patients, those with severe diarrhea and fever greater than 101°F, and elderly persons or infants, ciprofloxacin or trimethoprim-sulfamethoxazole may be prescribed for 3 to 7 days.

PREVENTION: To reduce the risk of *S. enteritidis* infection, eggs should be kept refrigerated at all times to prevent increased bacterial growth; cracked or dirty eggs should be discarded. Hands and equipment in contact with raw eggs should be washed thoroughly in soap and hot water before other foods are touched. Eggs should be cooked until the yolk is solid and eaten promptly; food containing cooked eggs should not be kept warm for more than 2 hr.

salpingectomy (säl'pīn-jék'tō-mē) [Gr. *salpinx*, tube, + *ektome*, excision] The surgical removal of a fallopian tube.

salpingemphraxis (säl'pīn-jēm-frāk'sīs) [" + *emphraxis*, a stoppage] An obstruction of the eustachian tube.

salpingian (säl-pīn'jē-än) Concerning the eustachian tube or a fallopian tube.

salpingitis (säl'pīn-jī'tīs) [Gr. *salpinx*, tube, + *itis*, inflammation] Inflammation of a fallopian tube, usually as a result of a sexually transmitted infection. The prognosis is affected by the virulence of the organism, degree of inflammation, and promptness of treatment. The long-term consequences of the infection may include scarring of the fallopian tubes and infertility.

ETIOLOGY: The most common causative organisms are *Neisseria gonorrhoeae* and *Chlamydia trachomatis*. Additional microbes include *Staphylococcus aureus*, *Escherichia coli*, and other aerobic and anaerobic bacilli and cocci. Although common among other cultures, tubercular salpingitis is rare in the U.S.; it is most likely to be present in immunosuppressed women and some immigrant populations. Postpartum salpingitis often results from the upward migration of commensal vaginal streptococci.

SYMPTOMS: Although the disease may be asymptomatic, the patient often presents with signs of an acute pelvic infection. Complaints include unilateral or bilateral pelvic or lower abdominal pain, fever, and chills.

EXAMINATION: If an abscess has formed, bimanual palpation or ultrasonography may reveal a tender adnexal mass.

TREATMENT: Empirical antibiotic therapies may include fluoroquinolones or combination therapies using tetracycline derivatives and cephalosporins. Care must be taken to avoid using fluoroquinolones or tetracyclines in pregnancy. Bedrest and analgesics assist in pain management.

eustachian s. Eustachitis.

gonococcal s. Salpingitis due to gonococci.

salpingo- Combining form indicating tube.

salpingocele (säl-pīng'gō-sēl) [" + *kele*,

tumor, swelling] The hernial protrusion of a fallopian tube.

salpingocystis (säl-pīng'ō-sī-ē'sīs) [" + *kyesis*, pregnancy] Tubal pregnancy.

salpingography (säl'pīng-gōg'rā-fē) [" + *graphein*, to write] Radiography of the fallopian tubes after the introduction of a radiopaque contrast medium; used in testing for patency of the tubes in investigating infertility.

salpingolithiasis (säl-pīng'gō-lī-thī'ā-sīs) [" + *lithos*, stone, + *iasis*, condition] The presence of stones in a fallopian tube.

salpingolysis (säl'pīng-gōl'i-sīs) [" + *lysis*, dissolution] The surgical disruption of adhesions in a fallopian tube.

salpingo-oophorectomy (säl-pīng'gō-ō'ōf-ō-rēk'tō-mē) [" + *oon*, egg, + *phoros*, a bearer, + *ektome*, excision] Excision of an ovary and a fallopian tube. SYN: *oophorosalingectomy*; *ovariosalingectomy*; *salpingo-ovariectomy*.

salpingo-oophoritis (säl-pīng'gō-ō'ōf-ō-rī'tīs) [" + " + " + *itis*, inflammation] Inflammation of a fallopian tube and an ovary. SYN: *salpingo-oothecitis*. SEE: *pelvic inflammatory disease*; *salpingitis*.

salpingo-oophorocele (säl-pīng'gō-ō'ōr-ō-sēl) [Gr. *salpinx*, tube, + *oon*, egg, + *phoros*, a bearer, + *kele*, tumor, swelling] A hernia enclosing an ovary and a fallopian tube.

salpingo-oothecitis (säl-pīng'gō-ō'ō-thē-sī'tīs) [" + *ootheke*, ovary, + *itis*, inflammation] Salpingo-oophoritis.

salpingo-ovariectomy (säl-pīng'gō-ō'vār-ē-kē'tō-mē) [" + LL. *ovarium*, ovary, + Gr. *ektome*, excision] Salpingo-oophorectomy.

salpingoperitonitis (säl-pīng'gō-pēr'ī-tō-nī'tīs) [" + *peritonaion*, peritoneum, + *itis*, inflammation] Inflammation of the serosal covering of the fallopian tubes.

salpingopexy (säl-pīng'ō-pēk'sē) [" + *pexis*, fixation] Fixation of a fallopian tube.

salpingopharyngeus (säl-pīng'gō-fār-īn'jē-ūs) [" + *pharynx*, throat] The muscle near the opening of the eustachian tube that raises the nasopharynx and also may help open the eustachian tube.

salpingoplasty (säl-pīng'gō-plās'tē) [" + *plassein*, to form] Plastic surgery of a fallopian tube; used in treating female infertility. SYN: *tuboplasty*.

salpingorrhaphy (säl'pīng-gor'ā-fē) [" + *rhaphe*, seam, ridge] Suture of a fallopian tube.

salpingosalpingostomy (säl-pīng'gō-säl'pīng-gōs'tō-mē) [" + *salpinx*, tube, + *stoma*, mouth] The operation of attaching one fallopian tube to the other.

salpingoscope (säl-pīng'gō-skōp") [" + *skopein*, to examine] A device for examining the nasopharynx and the eustachian tube.

salpingoscopy (säl'pīng-gōs-kū-pē) Microendoscopic examination of the inside of the fallopian tubes, e.g., to diagnose or treat obstruction, adhesions, or other diseases and conditions.

salpingostomy (säl-pīng'gō-stō-māt'ō-mē) [*l'* + *stoma*, mouth, + *tome*, incision] The creation of an artificial opening in a fallopian tube after it has been occluded as a result of inflammation and scarring.

salpingostomy (säl-pīng-ōs'tō-mē) The surgical opening of a fallopian tube that has been occluded or for drainage purposes.

salpingotomy (säl'pīng-gōt'ā-mē) [*l'* + *tome*, incision] Incision of a fallopian tube.

salpinx (säl'pīnks) *pl.* **salpinges** [Gr., tube] A fallopian tube or the eustachian tube.

salt [AS. *sealt*] **1.** White crystalline compound occurring in nature, known chemically as sodium chloride, NaCl. **2.** Containing or treated with salt. **3.** To treat with salt. **4.** In the plural, any mineral salt or saline mixture used as an aperient or cathartic, esp. epsom salts or Glauber's salt. **5.** In chemistry, a compound consisting of a positive ion other than hydrogen and a negative ion other than hydroxyl. **6.** A chemical compound resulting from the interaction of an acid and a base.

Salts and water are the inorganic or mineral constituents of the body. They play specific roles in the functions of cells and are indispensable for life. The principal salts are chlorides, carbonates, bicarbonates, sulfates, and phosphates, combined with sodium, potassium, calcium, or magnesium.

In general, salts serve the following roles in the body: maintenance of proper osmotic conditions; maintenance of water balance and regulation of blood volume; maintenance of proper acid-base balance; provision for essential constituents of tissue, esp. bones and teeth; maintenance of normal irritability of muscle and nerve cells; maintenance of conditions for coagulation of the blood; provision for essential components of certain enzyme systems, respiratory pigments and hormones; and regulation of cell membrane and capillary permeability. SEE: *sodium chloride*.

acid s. A salt in which one or more hydrogen atoms remain unreplaced by the hydroxyl (OH) radical.

alkaline s. SEE: *hydrogen sulfide in Poisons and Poisoning Appendix*.

basic s. A salt retaining the ability to react with an acid radical.

bile s. A salt of glycocholic and taurocholic acid present in bile.

buffer s. A salt that fixes excess amounts of acid or alkali without a change in hydrogen ion concentration.

double s. Any salt formed from two other salts.

epsom s. Magnesium sulfate.

glow s. Rubbing of the entire body with moist salt for stimulation.

hypochlorite s. A salt of hypochlorous acid used in household bleach and as an oxidizer, deodorant, and disinfectant.

iodized s. A salt containing 1 part sodium or potassium iodide to 10,000 parts of sodium chloride. It is an important source of iodine in the diet. Its use prevents goiter due to iodine deficiency.

neutral s. An ionic compound containing no replaceable hydrogen or hydroxyl ions.

rock s. Natural sodium chloride.

sea s. Sodium chloride obtained from sea water.

smelling s. A colloquial term for aromatized ammonium carbonate.

substitute s. A chemical, such as potassium chloride, that has a flavor similar to that of salt but has negligible sodium content. It is used by individuals whose medical condition requires limited sodium intake.

saltation (säl-tā'shūn) [L. *saltatio*, leaping] Act of leaping or dancing, as in chorea.

saltatory (säl'tā-tō'rē) Marked by dancing or leaping.

saltatory conduction The transmission of a nerve impulse along a myelinated nerve fiber. The action potential occurs only at the nodes of Ranvier, making velocity faster than along unmyelinated fibers.

Salter-Harris fracture (säl'tēr-hār'īs) A classification system used to categorize growth plate fractures as one of five types based on the mechanism of injury and the relationship of the fracture line(s) to the epiphyseal plate. The original five types of fractures, since expanded by other authors, were type I—a transverse fracture across the physis; type II—a fracture through the physis and metaphysis but not the epiphysis; type III—a fracture through the physis and epiphysis; type IV—an intra-articular fracture involving the epiphysis, physis, and metaphysis and type V—a compression on the epiphyseal plate.

saltting out A method of separating a specific protein from a mixture of proteins by the addition of a salt (e.g., ammonium sulfate).

salt-losing syndrome The condition of greatly increased sodium loss from the body as a result of renal disease, adrenocortical insufficiency, or gastrointestinal disease.

saltpeter, saltpetre (sawlt-pē'tēr) [L. *sal*, salt, + *petra*, rock] A common name for *potassium nitrate*.

Chile s. A common name for sodium

nitrate, NaNO_3 ; a crystalline powder, saline in taste and soluble in water.

salt poisoning Excessive intake of sodium chloride, which usually occurs in hospitalized patients treated with concentrated sodium solutions. It typically results in acute hypernatremia.

salubrious (să-lū'brē-ūs) [L. *salubris*, healthful] Promoting or favorable to health; wholesome.

saluretic Natriuretic.

salutary (säl'ū-tā'rē) [L. *salutaris*, health] Healthful; promoting health; curative.

salvage therapy Treatment that follows the relapse of an illness that had already been treated in standard fashion.

salve (säv) [AS. *sealf*] Ointment.

Salvia miltiorrhiza (mil'tē-ō-riz'ū) [NL fm. Gr. "of reddish root"] Danshen root, a traditional Chinese herbal remedy. It has been used to treat cardiovascular diseases. Its effectiveness is unproven in humans. It increases the risk of bleeding and should be avoided by patients taking aspirin, warfarin, and other antiplatelet or anticoagulant drugs. SYN: *danshen*.

samaritanism Compassion.

samarium (sä-mā'rē-üm) SYMB; Sm. A rare metallic element of the lanthanide series. Atomic weight 150.35; atomic number 62. Isotopes of samarium are used in nuclear medicine to identify and treat osteoblastic bone metastases and osteogenic sarcoma.

samarium-153 A radiopharmaceutical used to treat bone pain caused by cancer metastases.

SAM-e *S-adenosylmethionine*.

SAMPLE An acronym designed to remind the EMS provider the areas to explore in obtaining the patient's medical history. It stands for symptoms, allergies, medications, pertinent past medical history, last oral intake, and events leading up to the incident.

sample **1.** A piece or portion of a whole that demonstrates the characteristics or quality of the whole, such as a specimen of blood. **2.** In research, a portion of a population selected to represent the entire population.

biased s. In epidemiology or medical research, a sample of a group that does not equally represent the members of the group.

fetal blood s. A small amount of blood drawn from a fetal scalp vein to assess acid-base status. The normal fetal blood pH level is 7.25. Levels between 7.20 and 7.24 reflect a preacidotic state; levels below 7.20 indicate acidosis and fetal jeopardy.

grab s. In public health and medical statistics, a chaotic set of data from which conclusions are injudiciously drawn. Because the sample is not carefully randomized or scientifically se-

lected, the conclusions derived from such sample groups may be inaccurate.

sampling The process of selecting a portion or part to represent the whole.

random s. Randomization. SEE: *random sample*.

sanatorium (sän"ä-tō'rē-üm) [L. *sanatorium*, healing] Sanitarium.

sand (sänd) [AS.] Fine grains of disintegrated rock.

brain s. Concretion of matter near the base of the pineal gland. SYN: *corpora arenacea*.

sandflies Flies of the order Diptera belonging to the genus *Phlebotomus*. They transmit sandfly fever, Oroya fever, and various types of leishmaniasis.

sandfly fever A mild viral disease that clinically resembles influenza, with headache, sore throat, muscle aches, and malaise. The causative organism, any one of several species of Bunyviridae viruses, is transmitted by the common sandfly *Phlebotomus papatasi*, a small, hairy, blood-sucking midge that bites at night. The disease occurs in tropical and subtropical areas that experience long periods of hot, dry weather. Several antiviral drugs (e.g., alpha interferon and ribavirin) have some activity against the disease. SYN: *pappataci fever*; *phlebotomus fever*; *three-day fever*.

Sandhoff's disease (sänd'höfs) A rare form of Tay-Sachs disease in which two essential enzymes (hexosaminidase A and B) for metabolizing gangliosides are absent. In Tay-Sachs disease only one enzyme, hexosaminidase A, is absent.

SANE (sän) *Sexual Assault Nurse Examiner*.

sane (sän) [L. *sanus*, healthy] Sound of mind; mentally normal.

Sanfilippo's syndrome (sän-ft-lip'öz) [S. J. Sanfilippo, contemporary U.S. pediatrician] Mucopolysaccharidosis III.

sanguinarine (säng'gwīn-ä-rīn) A benzophenanthridine alkaloid available as an oral rinse and toothpaste. It is used to treat dental plaque and gingivitis.

sanguine (säng'gwīn) [L. *sanguineus*, bloody] **1.** Optimistic; cheerful. **2.** Plethoric, bloody; marked by abundant and active blood circulation, particularly a ruddy complexion. **3.** Pert. to or consisting of blood.

sanguineous (säng-gwīn'ē-üs) [L. *sanguineus*, bloody] **1.** Bloody; relating to blood. **2.** Having an abundance of blood. SYN: *plethoric*.

sanguinopurulent (säng'gwīn-ō-pū-rū-lent) [" + *purulentus*, full of pus] Concerning or containing blood and pus.

sanguis (säng'gwīs) [L.] Blood.

sanies (sä'nē-ēz) [L., thin, fetid pus] A thin, fetid, greenish discharge from a wound or ulcer, appearing as pus tinged with blood.

saniopurulent (sä'nē-ō-pū'roo-lent) [L.

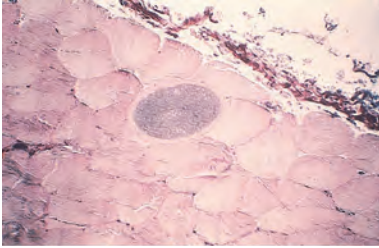
- sanies*, thin, fetid pus, + *purulentus*, full of pus] Having characteristics of sanies and pus; pert. to a fetid, serous, blood-tinged discharge containing pus.
- sanitarian** (săn'î-tā'rē-ăn) [L. *sanitas*, health] A person who by training and experience is skilled in sanitation and public health.
- sanitarium** (săn-î-tā'rē-ùm) [L. *sanitas*, health] An institution for the treatment and recuperation of persons having physical or mental disorders. SYN: *sanatorium*.
- sanitary** (săn'î-tā'rē) [L. *sanitas*, health] 1. Promoting or pert. to conditions that are conducive to good health. 2. Clean, free of dirt.
- sanitary napkin** Perineal pad, esp. one used for absorbing menstrual fluid. SEE: *menstrual tampon*; *menstruation*.
- sanitation** (săn'î-tā'shŭn) [L. *sanitas*, health] The formulation and application of measures to promote and establish conditions favorable to health, esp. public health. SEE: *hygiene*.
- sanitization** (săn'î-tī-zā'shŭn) [L. *sanitas*, health] The act of making sanitary.
- sanitize** (săn'î-tīz) 1. To make sanitary. 2. To inactivate or remove microorganisms from equipment and surfaces. Chemicals, heat, and ionizing radiation can be used for this purpose.
- sanitizer** An agent that reduces the number of bacterial contaminants to safe levels as judged by public health requirements.
- sanity** (săn'î-tē) 1. Soundness of health or mind; mentally normal. 2. The ability to think logically or rationally.
- San Joaquin valley fever** Coccidioidomycosis.
- SA node** Sinoatrial node of the heart.
- SaO₂** Saturation, oxygen.
- saphena** (să-fē'nă) *pl.* **saphenae** [Gr. *saphenes*, manifest] A saphenous vein.
- saphenectomy** (săf'ē-nēk'tō-mē) [ʹ + *ektome*, excision] The surgical removal of a saphenous vein.
- saphenous** (să-fē'nŭs) Pert. to or associated with a saphenous vein or nerve in the leg.
- saphenous nerve** A deep branch of the femoral nerve. In the lower leg, it follows the great saphenous vein and supplies the medial side of the leg, ankle, and foot.
- saphenous opening** An oval aperture in the fascia in the inner and upper part of the thigh, transmitting the saphenous vein below Poupart's ligament. SYN: *fossa ovalis*.
- saphenous vein** SEE: *vein*, *great saphenous*; *vein*, *small saphenous*.
- saponification** (să-pŏn'î-fi-kă'shŭn) [L. *sapo*, soap, + *facere*, to make] 1. Conversion into soap; chemically, the hydrolysis or the splitting of fat by an alkali yielding glycerol and three molecules of alkali salt of the fatty acid, the soap. 2. In chemistry, hydrolysis of an ester into its corresponding alcohol and acid (free or in the form of a salt).
- s. number** In analysis of fats, the number of milligrams of potassium hydroxide needed to saponify 1 g of oil or fat.
- saponify** (să-pŏn'î-fi) To convert into a soap, as when fats are treated with an alkali to produce a free alcohol plus the salt of the fatty acid. Thus, stearin, saponified with sodium hydroxide, yields the alcohol glycerol plus the soap sodium stearate.
- saponin** (săp'ŏ-nĭn) [Fr. *saponine*, soap] An unabsorbable glucoside contained in the roots of some plants that forms a lather in an aqueous solution. Saponins cause hemolysis of red blood cells even in high dilutions. When taken orally, they may cause diarrhea and vomiting. Mixtures of saponins are used as laboratory reagents to hemolyze specimens before analysis.
- sapophore** (săp'ŏ-for) [L. *sapor*, taste, + Gr. *phoros*, bearing] The component of a molecule that gives a substance its taste.
- saporific** (săp'ŏ-rĭf'ĭk) [NL. *saporificus*, producing taste] Imparting or affecting a taste or flavor.
- sapphism** (săf'ĭzĭm) [Sappho, Gr. poetess, 7th-century B.C.] Lesbianism.
- sapro-** Combining form meaning *putrid*, *rotten*.
- saprobe** (să'prŏb) [Gr. *sapros*, putrid, + *bios*, life] Saprophyte. **saprobic**, *adj.*
- saprogenic** (săp'rŏ-jĕn'ĭk) Causing putrefaction or resulting from it.
- saprophilous** (săp-rŏf'il-ŭs) [Gr. *sapros*, putrid, + *philein*, to love] Living on decaying or dead substances, as a microorganism.
- saprophyte** (săp'rŏ-fit) [ʹ + *phyton*, plant] Any organism living on decaying or dead organic matter. Most of the fungi and bacteria are saprophytes. SYN: *saprobe*. SEE: *parasite*. **saprophytic** (fĭt'ĭk), *adj.*
- SAPS** *secondary antiphospholipid antibody syndrome*.
- SAR** *specific absorption rate*
- Sarcina** (săr'sĭ-nă) [L., bundle] A genus of gram-positive cocci of the family Micrococcaceae. These bacteria are saprophytes and tend to appear in packets of four or eight following binary fission.
- sarcina** (săr'sĭ-nă) *pl.* **sarcinassarcinae** Any organism of the genus *Sarcina*.
- sarcitis** (săr-sĭ'tis) [Gr. *sarx*, flesh, + *itis*, inflammation] Inflammation of muscle tissue. SYN: *myositis*.
- sarco-** Combining form meaning *flesh* or *muscle*.
- sarcoadenoma** (săr'kŏ-ăd'ĕn-ŏ-mă) [Gr. *sarx*, flesh, + *aden*, gland, + *oma*, tumor] A fleshy tumor of a gland. SYN: *adenosarcoma*.
- sarcocarcinoma** (săr'kŏ-kăr'sĭn-ŏ-mă) [ʹ

+ *harkinos*, crab, + *oma*, tumor] A malignant tumor of sarcomatous and carcinomatous types.

sarcocele (sār'kō-sēl) [" + *kele*, tumor, swelling] A fleshy tumor of the testicle.

sarcocyst (sār'kō-sist) [" + *kystis*, bladder] An elongated tubular body produced by *Sarcocystis*.

Sarcocystis (sār'kō-sis'tis) [" + *kystis*, bladder] A genus of sporozoa found in the muscles of higher vertebrates (reptiles, birds, and mammals). **SEE: illus.**



SARCOCYSTIS INSIDE STRIATED MUSCLE

Sarcocystis hominis An intracellular protozoan parasite. It was formerly known as *Isospora hominis*.

S. lindemanni A species infesting the muscles of humans, causing myositis, eosinophilia, and fever.

sarcocystosis (sār'kō-sis-tō'sis) [" + "] Parasitic infection with members of the genus *Sarcocystis*, which causes sarcocysts.

Sarcodina (sār-kō-dī'nā) [" + *eidōs*, form, shape] A subphylum of protozoa that includes the order Amoebida. It is characterized by pseudopod locomotion.

sarcoid (sār'koyd) [" + *eidōs*, form, shape] 1. Resembling flesh. 2. A small epithelioid tubercle-like lesion characteristic of sarcoidosis.

Boeck's s. **SEE: *Boeck's sarcoid*.**

sarcoidosis (sār'koyd-ō'sis) [" + " + *ōsis*, condition] A chronic multisystem disease of unknown etiology, characterized by noncaseating (hard) granulomas and lymphocytic alveolitis. Sarcoidosis occurs most often in the southeastern U.S., is 10 times more common in blacks than whites, and is more common in women than men. **SEE: illus.**



SARCOIDOSIS

SYMPTOMS: The lungs are involved in 90% of cases of sarcoidosis and are the basis for the initial symptoms of fatigue, weight loss, anorexia, night sweats, shortness of breath, and a non-productive cough. Hilar lymphadenopathy may precede the development of respiratory symptoms from alveolitis. Peripheral lymphadenopathy, iritis, skin lesions, splenomegaly, hepatomegaly, interstitial nephritis, peritoneal disease, involvement of other visceral organs, and skeletal changes are seen in patients with widespread disease. Immunological abnormalities include T-cell lymphocytopenia, increased blood monocyte count, and anergic reactions to skin tests for common allergens. In approx. 60% to 70% of patients, no permanent damage to the lungs or other organs occurs. Approx. 20% develop residual lung or eye damage, and 10% die of progressive pulmonary fibrosis or associated right-sided heart failure (cor pulmonale).

DIAGNOSIS: Diagnosis is made through a combination of clinical, radiographical, and histological findings. Sarcoidosis must be differentiated from other diseases that cause granulomas, such as tuberculosis, histoplasmosis, and some other fungal infections.

TREATMENT: Sarcoidosis may progress insidiously or rapidly or may remit as the result of treatment with corticosteroids.

sarcolemma (sār'kō-lēm'ă) [" + *lemma*, husk] The cell membrane of a muscle cell. Invaginations called transverse tubules (T-tubules) penetrate the cytoplasm adjacent to the myofibrils and carry the action potential to the interior of the muscle cell.

sarcolemmopathy Any form of muscular dystrophy caused by protein defects within muscle cell membranes.

sarcology (sār-kōl'ō-jē) [" + *logos*, word, reason] The branch of medicine dealing with study of the soft tissues of the body.

sarcolysis (sār-kōl'ī-sis) [" + *lysis*, dissolution] Decomposition of the soft tissues or flesh.

sarcoma (sār-kō'mă) *pl. sarcomata* [" + *oma*, tumor] A cancer arising from mesenchymal tissue such as muscle or bone, which may affect the bones, bladder, kidneys, liver, lungs, parotids, and spleen. **SEE: Kaposi's sarcoma.**

botryoid s. A rare malignant connective tissue tumor occurring in the uterus, bladder, vagina, liver, or biliary tree. **SYN: rhabdosarcoma, embryonal.**

endometrial s. A malignant neoplasm of the endometrial stroma.

giant-cell s. Giant cell tumor.

osteogenic s. A sarcoma composed of bony tissue. It is the most common bony

cancer and typically afflicts adolescents. SYN: *osteosarcoma*.

reticulum cell s. A rare form of malignant large cell lymphoma.

spindle cell s. A sarcoma consisting of small and large spindle-shaped cells.

sarcomatoid (sar-kō'mā-toyd) [Gr. *sarx*, flesh, + *oma*, tumor, + *oidos*, form, shape] Resembling a sarcoma.

sarcomatosis (săr'kō-mā-tō'sis) [" + " + *osis*, condition] A condition marked by the presence and spread of a sarcoma; sarcomatous degeneration.

sarcomatous (săr-kō'mā-tūs) Of the nature of, or like, a sarcoma.

sarcomere (săr'kō-mēr) [" + *meros*, a part] The unit of contraction of the myofibrils of a muscle cell, made of protein filaments arranged between two Z disks. Thick filaments are made primarily of myosin; thin filaments are made of actin, troponin, and tropomyosin. Desmin, myomesin, nebulin, and titin are stabilizing proteins.

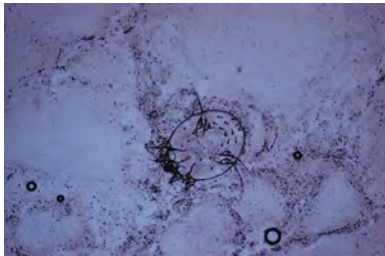
sarcopenia (săr'kō-pēn'ē-ā) Loss of muscular mass and strength, esp. in striated muscles. Sarcopenia commonly occurs with aging as a result of the combined effects of changes in exercise, nutrition, and hormonal activation of muscles (e.g., by growth and steroid hormones).

Sarcophagidae (săr'kō-fāj'ī-dē) [Gr. *sarx*, flesh, + *phagein*, to eat] The family of the order Diptera that includes the flesh flies. Females deposit their eggs or larvae on the decaying flesh of dead animals. Larvae of two genera, *Sarcophaga* and *Wohlfahrtia*, frequently infest open sores and wounds of humans, giving rise to cutaneous myiasis.

sarcoplasm (săr'kō-plāzm) [" + LL. *plasma*, form, mold] The cytoplasm of muscle cells, esp. striated muscle cells.

sarcoplasmic (săr'kō-plāz'mik) Concerning or containing sarcoplasm.

Sarcoptes (săr-kōp'tēz) A genus of Acarina that includes the mites that infest humans and animals. *Sarcoptes scabiei* causes scabies in humans. SEE: *illus.*



SARCOPTES SCABIEI

sarcosis (săr-kō'sis) [" + *osis*, condition] Abnormal formation of flesh.

sarcosporidiosis (săr'kō-spō-rīd'ē-ō'sis) [" + " + *osis*, condition] Infestation

with organisms of the order Sarcosporidia or the condition produced by them.

sarcostosis (săr'kōs-tō'sis) [" + *osteon*, bone, + *osis*, condition] Ossification of fleshy or muscular tissue.

sarcous (săr'kūs) [Gr. *sarko*, flesh] Concerning flesh or muscle.

sarin (GB) (săr'rin) [An acronym of *Schrader*, *Ambros*, *Rüdiger*, and *Van der Linde*, its discoverers] Isopropylmethylphosphonofluoridate; an extremely toxic nerve gas.

SARS (särz) Acronym for severe acute respiratory distress syndrome.

SARS-CoV (särz'kō-vē') An abbreviation for SARS coronavirus (the cause of severe acute respiratory distress syndrome).

SART *Sexual Assault Response Team*.

sartorius (săr-tō-rē-ūs) [L. *sartor*, tailor] A long, ribbon-shaped muscle in the leg that flexes, abducts, laterally rotates the thigh, and flexes the lower leg. This muscle, the longest in the body, enables the crossing of the legs in the tailor's position, the function for which it is named.

sashimi (să-shī'mē) A traditional Japanese food made of raw fish, usually served as an appetizer. It can occasionally be a source of food-borne toxins or infections. Ingestion of raw fish has been associated with the parasitic infestation anisakiasis.

sat *saturated*.

satellite (săt'l-īt) [L. *satelles*, attendant] A small structure attached to a larger one, esp. a minute body attached to a chromosome by a slender chromatin filament.

bacterial s. A bacterial colony that grows best when close to a colony of another microorganism.

satellitosis (săt'l-īt-ō'sis) [" + Gr. *osis*, condition] The accumulation of neuroglial cells about neurons of the central nervous system. This condition is seen in certain degenerative and inflammatory conditions.

satiation (să'shē-ā'shūn) In nutritional science, a sense of satisfaction or fullness with a meal that keeps a person from wanting to eat any more food.

satiety (să-tī'ēt-ē) [L. *satietas*, enough] Being full to satisfaction, esp. with food.

saturated (săt'ū-rā'tēd) [L. *saturare*, to fill] Holding all that can be absorbed, received, or combined, as a solution in which no more of a substance can be dissolved. This term is applied to hydrocarbons in which the maximum number of hydrogen atoms is present and there are no double or triple bonds between the carbon atoms. It is also applied to the hemoglobin-oxygen complex found in red blood cells when no more oxygen can reversibly bind to the hemoglobin.

saturated compound An organic compound with all carbon bonds filled. It

does not contain double or triple bonds. SEE: *unsaturated compound*.

saturated hydrocarbon SEE: under *hydrocarbon*.

saturation (săt'ū-rā'shūn) **1.** State in which all of a substance that can be dissolved in a solution is dissolved. Adding more of the substance will not increase the concentration. **2.** In organic chemistry, to have all available carbon atom valences satisfied so that there are no double or triple bonds between the carbon atoms.

saturation index In hematology, the amount of hemoglobin present in a known volume of blood compared with the normal.

saturation time The time required for the arterial blood of a person inhaling pure oxygen to become saturated.


saturnine (săt'ūr-nīn) [L. *saturnus*, lead] Concerning or produced by lead.

saturnism (săt'ūr-nīzm) [r + Gr. *-ismos*, condition] Lead poisoning. SYN: *plumbism*.

satyriasis (săt-ī-rī'ā-sīs) [LL.] An excessive and often uncontrollable sexual drive in men. SEE: *nymphomania*.

saucerization (savw'sēr-ī-zā'shūn) The surgical creation of a shallow area in tissue to remove devitalized tissue and to facilitate drainage.

sauna (sav'nā) [Finnish] An enclosure in which a person is exposed to moderate to very high temperatures and often high humidity, produced by water poured on heated stones. A stay in the sauna may be followed by a cool bath or shower. Sauna water is not sterile and may contain harmful microorganisms, including yeasts and molds. Even though the sauna has no proven benefits in preventing illnesses or promoting fitness, the regimen does help to promote relaxation, relieve aches and pains, and loosen stiff joints.

 Saunas are not advised for those with fever, those who are dehydrated, or those who are unable to sweat. Those who have recently used alcohol or have participated in strenuous exercise should not use a sauna. If soft tissue has been traumatized in the past 24 to 48 hr, the sauna should not be used. Prolonged exposure to the sauna may be dangerous due to induced hyperpyrexia, dehydration, and renal failure.

savings account, medical A savings account in which deposits may accumulate tax-free and be used as self-financed health insurance to pay incurred or anticipated medical expenses. It is also called a "health-savings account."

saw [AS. *sagu*] A cutting instrument with an edge of sharp toothlike projec-

tions; used esp. for cutting bone in surgery.

saw palmetto A low-growing, spreading palm (*Serenoa repens*) native to Florida and the coastal southeastern U.S. whose extract is used as a treatment for benign prostatic hyperplasia. Some evidence suggests it is clinically effective, and some research indicates that it is not.



Saw palmetto should be avoided by women of childbearing age, especially women who are pregnant or breastfeeding.

saxitoxin (sāk'sī-tōk'sīn) A neurotoxin produced by some dinoflagellates and concentrated during feeding by mollusks such as mussels and clams. It causes paralytic shellfish poisoning.

Sb Symbol for the element antimony.

SbCl₃ Antimony trichloride.

SBE *subacute bacterial endocarditis*.

Sb₂O₅ Antimonic oxide; antimony pentoxide.

Sb₄O₆ Antimonious oxide.

Sc Symbol for the element scandium.

sc *subcutaneously*.

scab (skāb) [ME. *scabbe*] **1.** Crust of a cutaneous sore, wound, ulcer, or pustule formed by drying of the discharge. **2.** To become covered with a crust.

scabicide (skā'bi-sid) An agent that kills mites, esp. the causative agent of scabies.

scabies (skā'bēz) [L. *scabies*, itch] A contagious infestation of the skin with the itch mite, *Sarcoptes scabiei*. It typically presents as an intensely pruritic rash, composed of scaly papules, insect burrows, and secondarily infected lesions distributed in the webs between the fingers and on the waistline, trunk (esp. the axillae), penis, and arms. It readily spreads in households, among playmates, and between sexual partners—that is, among people having close physical contact. SEE: *illus.*; *Nursing Diagnoses Appendix*. **scabietic** (-ēt'ik), *adj.*



SCABIES

SYMPTOMS: An itchy rash that worsens at night and that involves multiple members of the same household is a common presentation.

DIAGNOSIS: Because the disease is often missed and occasionally overdiagnosed, scrapings from suspect lesions are examined microscopically to confirm the presence of the mite, its eggs, or its excretions.

TREATMENT: For children 2 months and older and nonpregnant adults, permethrin 5% cream is applied to the entire body surface, avoiding the eyes and the mouth. The cream is thoroughly washed off after about 8 to 14 hr. Retreatment is sometimes required in 14 days. Pregnant women and infants under 2 months of age should be treated with 6% precipitated sulfur in petrolatum, daily for 3 days.

scabrities (skā-brīsh'ē-ēz) [L. *scaber*, rough] A scaly, roughened condition of the skin.

s. unguium Morbid degeneration of the nails, making them rough, thick, distorted, and separated from the flesh at the root; symptomatic of syphilis and leprosy.

scala (skā'lā) [L. *scala*, staircase] Any one of the three spiral passages of the cochlea of the inner ear.

s. tympani The duct filled with perilymph that is below the organ of Corti. It extends from the round window to the tip of the cochlea.

s. vestibuli The duct filled with perilymph that is above the organ of Corti. It extends from the oval window to the tip of the cochlea, where it communicates with the scala tympani through an aperture, the helicotrema.

scald (sköld) [ME. *scalden*, to burn with hot liquid] 1. A burn of the skin or flesh caused by moist heat and hot vapors, as steam. 2. To cause a burn with hot liquid or steam.

When the heat applied is approx. equivalent, a scald is deeper than a burn from dry heat. Healing is slower and scar formation greater in scalds. Emergency treatment of a scalded area should include immediate application of cold in the most readily available form, (i.e., ice packs or immersion of the part in very cold water). This should be continued for at least 1 hr.

scale (skāl) [L. *scala*, staircase] A graduated or proportioned measure, a series of tests, or an instrument for measuring quantities or for rating some individual intelligence characteristics.

absolute s. Scale used for indicating low temperatures based on absolute zero. SYN: *Kelvin scale*. SEE: *absolute temperature*; *absolute zero*.

ASIA Impairment s. A method of assessing the degree of motor and sensory impairment in spinal cord injured pa-

tients. The assessment is based on an examination of the perineum and anus, i.e., on the S4-S5 level of the spinal cord. Grade: A – Complete: No motor or sensory function; Grade B – Incomplete, sensory function is intact, but motor function is absent below and including the S4-S5 level; Grade C – Incomplete, motor function is preserved below the neurological level and more than half of the primary muscles have a muscle grade test of less than 3; Grade D – Incomplete: Motor function is preserved and at least half of the muscles below the S4-S5 level have a muscle grade test of 3 or better; and Grade E – Normal.

Borg's dyspnea s. SEE: *Borg's dyspnea scale*.

Braden s. SEE: *Braden scale*.

centigrade s. Celsius scale.

s. of contrast The range of densities on a radiograph; the number of tonal grays that are visible.

hydrogen ion s. A scale used to express the degree of acidity or alkalinity of a solution. It extends from 0.00 (total acidity) to 14 (total alkalinity), the numbers running in inverse order of hydrogen ion concentration. The pH value is the negative logarithm of the hydrogen ion concentration of a solution, expressed in moles per liter.

As the hydrogen ion concentration decreases, a change of 1 pH unit means a 10-fold decrease in hydrogen ion concentration. Thus a solution with a pH of 1.0 is 10 times more acid than one with a pH of 2.0 and 100 times more acid than one with a pH of 3.0. A pH of 7.0 indicates neutrality.

As the hydrogen ion concentration varies in a definite reciprocal manner with the hydroxyl ion (OH⁻) concentration, a pH reading above 7.0 indicates alkalinity. In the human body, arterial blood is slightly alkaline, having a normal pH range of 7.35 to 7.45. SEE: *pH*.

pain s. An assessment tool used to measure the intensity of a patient's discomfort. SEE: *Numerical Rating Scale*; *visual analog s.*

Norton s. SEE: *Norton scale*.

Numerical Rating S., Numeric Rating S. ABBR: NRS. A variation of the visual analog scale that uses a scalar numbering system to objectify a patient's pain. Most numeric rating scales use a 10-cm line with tick marks spaced 1 cm apart. The leftmost mark is labeled "0" and has the notation "No Pain." The rightmost mark is labeled "10" and the notation "Worst pain imaginable." The patient is asked to indicate where on the continuum he or she would rate the current intensity of pain.

visual analog s. An instrument used to quantify a subjective experience, such as the intensity of pain. A commonly used visual analog scale is a 10-cm line

labeled with “worst pain imaginable” on the left border and “no pain” on the right border. The patient is instructed to make a mark along the line to represent the intensity of pain currently being experienced. The clinician records the distance of the mark in centimeters from the right end of the scale.

scale (skāl) [O.Fr. *escale*, husk] **1.** A small dry flake, shed from the upper layers of skin. Some shedding of skin is normal; scale increases in diseases like pityriasis rosea, psoriasis, and tinea pedis and after scratching the skin. **2.** A film of tartar encrusting the teeth. **3.** To remove a film of tartar from the teeth. **4.** To form a scale on. **5.** To shed scales.

scale (skāl) [ME. *scole*, balance] An instrument for weighing. **SEE:** *illus.*



SCALE FOR INFANTS

scalene (skā-lēn') [Gr. *skalenos*, uneven] **1.** Having unequal sides and angles, said of a triangle. **2.** Designating a scalenus muscle.

s. tubercle Lisfranc's tubercle.

scaleneotomy (skā'lē-nōt'ō-mē) [" + *ektome*, excision] Resection of any of the scalenus muscles.

scalotomy (skā'lē-nōt'ō-mē) [" + *tome*, incision] Surgical division of one or more of the scalenus muscles.

scalenus (skā-lē'nūs) [L., uneven] One of three deeply situated muscles on each side of the neck, extending from the tubercles of the transverse processes of the third through sixth cervical vertebrae to the first or second rib. The three muscles are the scalenus anterior (*anticus*), medius, and posterior.

scalenus syndrome A symptom complex characterized by brachial neuritis with or without vascular or vasomotor disturbance in the upper extremities. Also called *scalenus anticus syndrome*.

SYMPTOMS: The symptoms include pain, tingling, and numbness anywhere from the shoulder to the fingers. Small muscles of the hand or even the deltoid or other muscles of the arm atrophy.

TREATMENT: The posture should be corrected, and sometimes the arm and shoulder are immobilized. When relief is not obtained, surgical correction may

be required. **SYN:** *neurogenic thoracic outlet syndrome*.

scaler (skā'lēr) [O.Fr. *escale*, husk] **1.** A dental instrument used to remove calculus from teeth. **2.** A device for counting pulses detected by a radiation detector.

magnetostrictive s. An electrically powered device used for calculus and tartar removal as an alternative to ultrasonic scaling or manual curettage. Typical units use a stack of metal strips in the handpiece and move in an elliptical pattern.

sickle s. A manual device used to remove supragingival calculus. The instrument has two parallel cutting edges on the face of the blade that converge to form a point. It is effective but slow and damages enamel more than ultrasonic or magnetostrictive scalers.

sonic s. Ultrasonic scaler.

ultrasonic s. A device that uses high-frequency vibration to remove stains and adherent deposits on the teeth. **SYN:** *sonic scaler*.

scaling (skāl'ing) [O.Fr. *escale*, husk] The removal of calculus from the teeth.

scall (skawl) [Norse *skalli*, baldhead] Dermatitis of the scalp producing a crusted scabby eruption.

scalp (skālp) [ME., sheath] The hairy integument of the head. In anatomy, this includes the skin, dense subcutaneous tissue, the occipitofrontalis muscle with the galea aponeurotica, loose subaponeurotic tissue, and cranial periosteum.

scalpel (skāl'pēl) [L. *scalpellum*, knife] A small, straight surgical knife with a convex edge and thin keen blade. **SEE:** *illus.*

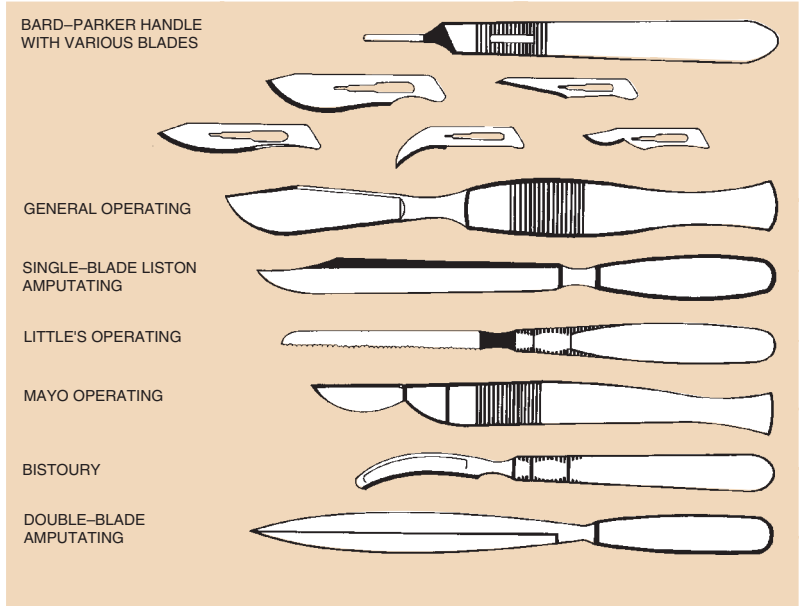
harmonic s. ABBR: HS. An ultrasonic dissecting device used in surgery to disrupt, disintegrate, or coagulate tissues, especially those with a high water or fat content. The device works by cavitating the tissues it contacts. When used laparoscopically, tissues destroyed by the scalpel are removed from the body by aspiration. **SYN:** *ultrasonic dissector*.

scalpriform (skāl'pri-form) [L. *scalprum*, knife, + *forma*, shape] Shaped like a chisel.

scalp tourniquet A tourniquet applied to the scalp during IV administration of antineoplastic drugs to restrict blood flow to the hair-bearing portion of the scalp. This procedure helps prevent the cranial alopecia that may accompany the chemotherapy used to treat certain types of cancer.

scaly (skā'lē) [O.Fr. *escale*, husk] Resembling or characterized by scales.

scan 1. An image obtained from a system that compiles information in a sequence pattern, such as computed tomography,



SCALPELS

ultrasound, or magnetic resonance imaging. **2.** Scintiscan.



bone s. A nuclear medicine scan that uses short half-life radioactively labeled chemicals to make images of bones and bone diseases, such as occult fractures, osteomyelitis, or tumors. This is esp. useful in delineating osteomyelitis and metastases to the bone.

brain s. Any procedure for imaging the structure and function of the brain.

DEXA s. *Dual-energy x-ray absorptiometry scan.*

dual-energy x-ray absorptiometry s. ABBR: DEXA scan. SEE: under *absorptiometry*.

milk s. A colloquial term for radionuclide reflux imaging.

ventilation/perfusion s. V/Q s.

V/Q s. An imaging procedure used in the diagnosis of pulmonary embolism. The procedure has two parts: (1) the injection of microscopic spheres into the bloodstream to evaluate perfusion of the lung, then (2) the inhalation of xenon gas to assess pulmonary aeration. Certain patterns of mismatching between ventilation and perfusion of the lung are considered diagnostic of pulmonary embolism. SYN: *ventilation/perfusion scan*.

scandium (skän'dē-üm) [L. *Scandia*, Scandinavia] SYMB: Sc. A rare, soft, lightweight metallic element; atomic weight 44.956; atomic number 21. It is used in healthcare in alloys, nanomolecules, and some lasers.

scanning 1. Recording on an image receptor the emission of radioactive waves from a specific substance injected into the body. **2.** The process of obtaining different images of a specified anatomical part through a system that compiles information in a sequential pattern, such as computed tomography, ultrasound, or magnetic resonance imaging.

scanty (skän'tē) [ME. from O. Norse, *skamt*, short] Not abundant; insufficient, as a secretion.

Scanzoni maneuver (skän-zōn'ē) [Friedrich W. Scanzoni, Ger. obstetrician, 1821–1891] Double application of forceps, the first to rotate the fetal occiput from a posterior to an anterior position, and the second to assist fetal descent and birth.

scapha (skā'fā) [NL., *skiff*] An elongated depression of the ear between the helix and antihelix.

scapho- Combining form meaning *boat-shaped*.

scaphocephalism (skāf'ō-sēf'äl-izm) [/' + " + *-ismos*, condition] Condition of having a deformed head, projecting like the keel of a boat. SYN: *scaphocephaly*.

scaphocephalic (-äl'ik), *adj.*


scaphocephalous (skāf'ō-sēf'äl-lūs) [/' + *kephale*, head] SEE: *scaphocephalism*.

scaphocephaly (skāf'ō-sēf'äl-ē) [/' + *kephale*, head] Scaphocephalism.

scaphocephaly (skāf'ō-sēf'äl-ē) [/' + *hydor*, water, + *kephale*, head] Hydrocephalus combined with scaphocephalism.

scaphoid (skăf'oyd) [" + *eidōs*, form, shape] **1.** Boat-shaped, navicular, hollowed. **2.** SEE: under *bone*.

scaphoiditis (skăf'oyd-ī'tis) [" + " + *itis*, inflammation] Inflammation of the scaphoid bone.

scapula (skăpū-lă') [L., shoulder blade]  The large, flat, triangular bone that forms the posterior part of the shoulder. It articulates with the clavicle and the humerus. SYN: *shoulder blade*. SEE: *il-lus.*; *triceps*.

plane of s. The angle of the scapula in its resting position, normally 30° to 45° forward from the frontal plane toward the sagittal plane. Movement of the humerus in this plane is less restricted than in the frontal or sagittal planes because the capsule is not twisted.

tipped s. A condition in which the inferior angle of the scapula is prominent, usually the result of faulty posture and a tight pectoralis minor muscle. Tipping is a normal motion when a person reaches with the hand behind the back.

winged s. Condition in which the medial border of the scapula is prominent, usually the result of paralysis of the serratus anterior or trapezius muscles. SYN: *angel's wing*.

scapular (skăp'ū-lăr) Of, or pert. to, the shoulder blade.

scapulary (skăp'ū-lărē) A shoulder bandage for keeping a body bandage in place. A broad roller bandage is split in half. The undivided section of the roller


bandage is fastened in front with the two ends passing over the shoulders and attached to the back of the body bandage.

scapulectomy (skăp'ū-lĕk'tō-mĕ) [L. *scapula*, shoulder blade, + Gr. *ektome*, excision] Surgical excision of the scapula.

scapulo- Combining form meaning *shoulder*.

scapuloclavicular (skăp'ū-lō-klă-vĭk'ū-lăr) [L. *scapula*, shoulder blade, + *clavicula*, little key] Concerning the scapula and clavicle.

scapulodynia (skăp'ū-lō-dĭn'ĕ-ă) [" + *odyne*, pain] Inflammation and pain in the shoulder muscles.

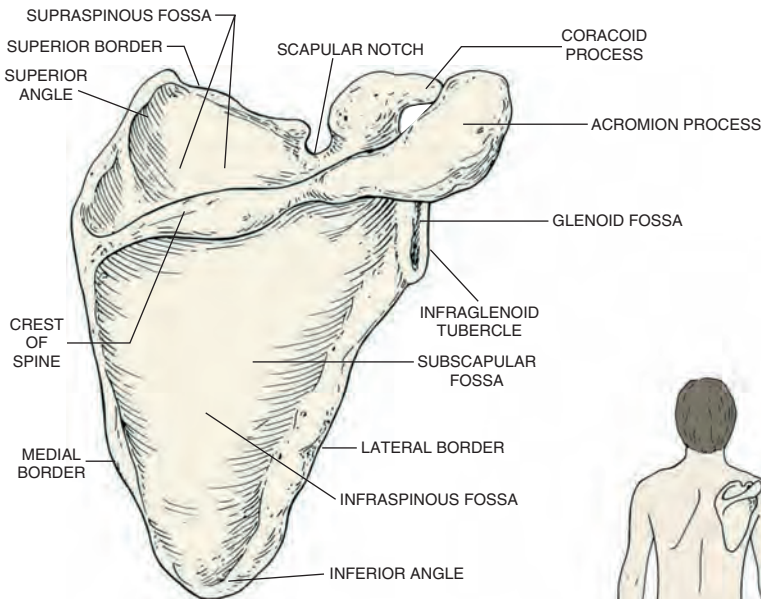
scapulohumeral (skăp'ū-lō-hū'mĕr-ăl)  [" + *humerus*, upper arm] Concerning the scapula and humerus.

scapulopexy (skăp'ū-lō-pĕk'sĕ) [" + Gr. *pexis*, fixation] Fixation of the scapula to the ribs.

scapulothoracic (skăp'ū-lō-thō-răs'ĭk) [" + Gr. *thorax*, chest] Concerning the scapula and thorax.

scapus (skă'pūs) *pl.* **scapi** [L. *scapus*, stalk] A shaft or stem.

scar (skăr) [Gr. *eskhara*, scab] A mark left in the skin or an internal organ by the healing of a wound, sore, or injury because of replacement by connective tissue of the injured tissue. Scars may result from wounds that have healed, lesions of diseases, or surgical operations. When it first develops a scar is red or



SCAPULA

purple. It later takes on the skin color of the patient. SYN: *cicatrix*. SEE: *ke-loid*.

Scarf sign (skahrhf) A newborn assessment finding in which the infant's elbow crosses the body midline without resistance as the examiner draws the arm across the chest to the opposite shoulder. This is characteristic of preterm infants born before 30 weeks gestation.

scarification (skär'f-i-kā'shūn) [Gr. *skariphismos*, scratching up] The making of numerous superficial incisions in the skin.

scarificator (skär'f-i-kā'tor) An instrument used for making small incisions in the skin. SYN: *scarifier*.

scarifier (skär'f-i'ēr) Scarificator.

scarlatina (skär'lā-tē'nā) [NL., red] Scarlet fever.

s. anginosa A severe form of scarlatina with extensive necrosis and ulceration of the pharynx and in some cases with peritonsillar abscess.

s. hemorrhagica Scarlatina with hemorrhage into the skin and mucous membranes.

s. maligna A fulminant and usually lethal form of scarlatina. **scarlatinal** (-nāl), *adj.*

scarlatiniform (skär-lā-tīn'f-i-form) [L. *scarlatina*, red, + *forma*, shape] Resembling scarlatina or its rash.

scarlatinoid (skär-lāt'f-i-noyd) [f + Gr. *eidōs*, form, shape] Resembling scarlet fever.

scarlet fever [L. *scarlatum*, red] An acute, contagious disease characterized by pharyngitis and a pimply red rash. It is caused by group A beta-hemolytic streptococcus and usually affects children between the ages of 3 and 15. SYN: *scarlatina*. SEE: *Nursing Diagnoses Appendix*.

ETIOLOGY: The disease is caused by many strains (more than 40) of group A, beta-hemolytic streptococci that elaborate an erythrogenic toxin.

SYMPTOMS: After an incubation period of 1 to 7 days, children develop a fever, chills, vomiting, abdominal pain, and malaise. The pharynx and tonsils are swollen and red, and an exudate is present. Initially the tongue is white, with red, swollen papilla ("white strawberry tongue"); within 5 days, the white disappears, creating a red strawberry tongue. A red pinpoint rash that blanches on pressure with a sandpapery texture appears on the trunk (chest to neck, abdomen, legs and arms, sparing soles and palms) within 12 hr after the onset of fever. Cheeks are flushed, with pallor surrounding the mouth. Faint lines in the elbow creases, called Pastia's lines, are characteristic findings in full-blown disease. Over several days, sloughing of the skin begins, which lasts approx. 3 weeks.

INCUBATION: The incubation period is probably never less than 24 hr. It may be 1 to 3 days, and rarely longer.

TREATMENT: Scarlet fever is treated with 10 days of penicillin (or erythromycin in cases with penicillin allergy). A full course of therapy is vital to decrease the risk of rheumatic fever or glomerulonephritis. In general, patients are taught to isolate the infected child from siblings until they have received penicillin for 24 hr.

PATIENT CARE: Good hand hygiene techniques and proper disposal of tissues with purulent discharge are emphasized. The parents also are advised about the importance of administering the prescribed antibiotic as directed for the entire course of treatment, even if the child looks and feels better. Because the child may be irritable and restless, the parents are taught methods to encourage bedrest and relaxation. The child should be kept occupied with age-appropriate books, games, toys, and television.

scarlet rash A rose-colored rash, specifically that of German measles.

Scarpa, Antonio (skär'pā) Italian anatomist, 1752–1832.

SCAT *sheep cell agglutination test*.

scato- Combining form denoting *excrement, fecal matter*. SEE: *stercor-*.

scatologic (skāt'ō-lōj'ik) Concerning fecal matter.

scatology (skā-tōl'ō-jē) [Gr. *skato-*, dung, + *logos*, word, reason] **1.** Scientific study and analysis of the feces. SYN: *coprology*. **2.** Interest in obscene things, esp. obscene literature.

scatoma (skā-tō'mā) [f + *oma*, tumor] A mass of inspissated feces in the colon or rectum, resembling an abdominal tumor. SYN: *fecaloma*.

scatophagy (skā-tōf'ā-jē) Coprophagy.

scatter (skāt'ēr) **1.** The diffusion of electromagnetic radiation when it strikes an object. **2.** The dispersion or showering of objects from an initial location after energy is applied to them.

coherent s. An interaction between x-rays and matter in which the incoming photon is absorbed by the atom and leaves with the same energy in a different direction. Fewer than 5% of the interactions between x-rays and matter in tissue are of this type.

scatter air ratio In radiation therapy, the ratio between the primary and scatter radiation in air at the point of calculation along the central ray of the treatment beam. Tables of values and irregular field algorithms are critical for devising patient treatment plans by using computer systems.

scattergram (skāt'ēr-grām) **1.** A graphical means of displaying information, in which multiple data points, representing the relation between two variables,

are clustered. **2.** A graphic interpretation of blood cell populations generated by some types of blood cell analyzers.

scatter photocoagulation SEE: *photocoagulation*.

scavenger cell (skāv'ən-jēr) [ME. *skawager*, toll collector] A phagocytic cell, such as a macrophage or a neutrophil, that cleans up disintegrating tissues or cells.

SCBA *self-contained breathing apparatus*.

SCD *Sequential compression device*.

Sc.D. *Doctor of Science* (degree).

SCF *saturated calomel electrode*.

Scedosporium (sēd'ō-spōr'ē-ūm) [NL]

A species of filamentous fungi that grow in soil and are occasionally responsible for fungal infections in humans, e.g., in the lung after inhalation, in skin, or in contaminated wounds.

scent (sēnt) Odor.

Schamroth sign (shahm'rōt, rawth) A method of assessing a patient for evidence of clubbing of the fingers. The patient is asked to place the nails of the right and left index fingers against each other. In health, a small diamond-shaped gap is seen between the proximal margin of the nails. In patients with clubbing, this gap is filled by tissue. Clubbing of the digits is found in some patients with serious lung diseases, such as lung cancers and chronic obstructive lung disease.

Schatzki ring (shäts'kē) [Richard Schatzki, U.S. radiologist, 1901–1992] A lower esophageal mucosal ring composed of a thin annular weblike tissue located at the squamocolumnar junction at or near the border of the lower esophageal sphincter. When the diameter of the ring is less than 1.3 cm, dysphagia is present. Treatment involves stretching the ring with dilators.

Schüffner's dots (shif'nēr) [Wilhelm P. A. Schüffner, Ger. pathologist, 1867–1949] Minute granules present in the red blood cells when they are infected by *Plasmodium vivax*.

schedule A timetable, usually written; a plan for action to achieve a certain goal.

fee s., fee sheet A list of charges for health care services. Health care providers keep fee schedules in their offices to specify the amount of compensation they want for providing selected services. Managed care organizations and other medical insurance providers publish lists representing the maximum charges they will reimburse for the same services. In many instances, the reimbursement offered by insurers is less than that charged by health care providers.

Scheie's syndrome (shīz) [Harold Glendon Scheie, U.S. ophthalmologist, 1909–1990] Mucopolysaccharidosis IS.

schema (skē'mā) [Gr., shape] Shape, plan, or outline.

schematic (skē-māt'ik) [NL. *schematicus*, shape, figure] Pert. to a diagram or model; showing part for part in a diagram.

scheroma (shē-rō'mā) Xerophthalmia.

Schäffer's reflex (shā'fērs) [Max Schäffer, Ger. neurologist, 1852–1923] Dorsiflexion of the toes and flexion of the foot resulting when the middle portion of the Achilles tendon is pinched.

Scheuermann's disease (shoy'ēr-mänz) [Holger W. Scheuermann, Danish physician, 1877–1960] A spinal deformity with an autosomal dominant inheritance, occurring most commonly in early adolescence and characterized by a marked thoracolumbar kyphosis (an increased convexity of the back in the thoracic area, sometimes referred to as "round-back"). The incidence is about 0.4%, with no gender preference.

SYMPTOMS: About 50% of patients complain of back pain in the affected area; others complain of poor posture or fatigue. There are usually no neurological symptoms unless cord compression occurs.

DIAGNOSIS: The diagnosis is usually made from clinical presentation and the results of a standing x-ray examination of the spine.

TREATMENT: Symptomatic treatment may include nonsteroidal anti-inflammatory drugs, rest, and activity modification. Plaster casts and braces (including the Milwaukee brace) are used to correct the deformity and are usually successful if the child has not stopped growing. Operative treatment is reserved for those with a significant deformity and those who have stopped growing.

Schick test (shik) [Béla Schick, Hungarian-born U.S. pediatrician, 1877–1967] A test formerly used to determine the degree of immunity to diphtheria, in which a dilute toxin was injected intradermally. SEE: *diphtheria*.

Schilder's disease (shil'dērs) [Paul Ferdinand Schilder, Austrian-U.S. neurologist, 1886–1940] A rare demyelinating disease of the central nervous system (a variant of multiple sclerosis). It results in brain lesions that may resemble tumors or abscesses during neuroimaging. The disease may respond to treatment with immunosuppressing drugs. SYN: *myelinoclastic diffuse sclerosis*.

Schiller's test (shil'ērs) [Walter Schiller, Austrian-U.S. pathologist, 1887–1960] A test for superficial cancer, esp. of the uterine cervix. The tissue is painted with an iodine solution. Cells lacking glycogen fail to stain, and their presence may indicate a malignant change.

Schilling's classification (shil'ingz) [Vic-

tor Schilling, Ger. hematologist, 1883–1960] A method of classifying polymorphonuclear neutrophils into four categories according to the number and arrangement of the nuclei in the cells.

Schilling test (shil'ing) [Robert F. Schilling, U.S. hematologist, b. 1919] A test that uses oral, radioactive vitamin B₁₂ (cyanocobalamin) and injected, nonradioactive B₁₂ to assess the gastrointestinal absorption of the vitamin. It is used primarily to diagnose pernicious anemia but can also identify B₁₂ malabsorption caused by other agents, including bacterial overgrowth of the gut and pancreatic insufficiency. A person with normal cyanocobalamin absorption excretes between 8% and 40% of radiolabeled B₁₂ in a 24-hr urine collection taken after the injection. Those with decreased B₁₂ excretion are retested under several conditions:

1. after receiving intrinsic factor with radiolabeled cyanocobalamin;
2. after receiving antibiotics; and
3. after receiving pancreatic enzymes to distinguish between the possible cause of vitamin malabsorption.

schindylesis (skin'di-lē'sis) [Gr. *schindylesis*, a splitting] A form of wedge and groove suture in which a crest of one bone fits into a groove of another.

Schönlein-Henoch purpura (shän'līn-hēn-ōk) SEE: *Henoch-Schönlein purpura*.

Schiötz tonometer (shē'ēts) [Hjalmar Schiötz, Norwegian physician, 1850–1927] An instrument for measuring intraocular pressure by the degree of indentation produced by pressure on the cornea.

SCHIP *State Children's Health Insurance Program*.

Schirmer's test (shir'mērz) [Rudolph Schirmer, Ger. ophthalmologist, 1831–1896] The use of an absorbent paper placed in the conjunctival sac as a test for patients with ocular irritation and dry eye (e.g., keratoconjunctivitis sicca). The rate and amount of wetting of the paper provide an estimate of tear production.

schisto- (skīs'tō) Combining form meaning *split, cleft*.

schistocelia (skīs'tō-sē'lē-ā) [Gr. *schistos*, divided, + *koilia*, belly] A congenital abdominal fissure.

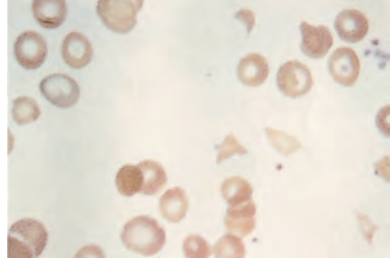
schistocephalus (skīs'tō-sēf'ā-lūs) [" + *kephale*, head] A fetus with a cleft head.

schistocormia (skīs'tō-kor'mē-ā) [" + *kormos*, trunk] A fetus with a cleft trunk.

schistocystis (skīs'tō-sīs'tīs) [" + *kystis*, bladder] A fissure of the bladder.

schistocyte (skīs'tō-sīt) [" + *kytos*, cell] A fragmented red blood cell that appears in the blood in a variety of bizarre shapes, from small triangular forms to

round cells with irregular surfaces. Schistocytes are found in patients with hemolytic anemias, severe burns, and several other conditions. SYN: *schizocyte*. SEE: *illus.*



SCHISTOCYTES

In peripheral blood (×600)

schistocytosis (skīs'tō-sī-tō'sis) [" + *osis*, condition] Schistocytes in the blood. SYN: *schizocytosis*.

schistoglossia (skīs'tō-glōs'ē-ā) [" + *glossa*, tongue] A cleft tongue.

schistomelus (skīs-tōm'ē-lūs) [" + *melos*, limb] A fetus with a cleft in a limb.

schistorachis (skīs-tor'ā-kīs) [" + *rhachis*, spine] Protrusion of membranes through a congenital cleft in the lower vertebral column. SYN: *spina bifida cystica*; *rachischisis*.

Schistosoma (skīs'tō-sō'mā) [" + *soma*, body] A genus of parasitic blood flukes belonging to the family Schistosomatidae, class Trematoda. SEE: *illus.*



SCHISTOSOMA

Female (larger) and male (×5)

S. haematobium A species common in Africa and southwestern Asia. Adults infest the pelvic veins of the vesical plexus. Eggs work their way through the bladder wall of the host and are discharged in the urine. Urinary schistosomiasis is caused by this organism.

S. japonicum A species common in

many parts of Asia. Adults live principally in branches of the superior mesenteric vein. Eggs work their way through the intestinal wall of the host into the lumen and are discharged with feces. Oriental schistosomiasis is caused by this species.

S. mansoni A species occurring in many parts of Africa and tropical America, including the West Indies. Adults live in branches of the inferior mesenteric veins. Eggs are discharged through either the host's intestine or bladder. This species causes bilharzial dysentery or Manson's intestinal schistosomiasis.

schistosomia (skīs'tō-sō'mē-ā) [*+ soma, body*] A deformed fetus with a fissure in the abdomen. The limbs are rudimentary if present.

schistosomiasis (skīs'tō-sō-mī'ās-īs) [Gr. *schistos*, divided, + *soma*, body, + *-iasis*, infection] One of several parasitic diseases due to infestation with blood flukes belonging to the genus *Schistosoma*. The flukes may colonize the urinary tract, mesenteries, liver, spleen, or biliary tree, causing symptoms from these organs. Although schistosomiasis rarely is encountered in the U.S., it is endemic throughout Asia, Africa, and South America, as well as some Caribbean islands. An estimated 200 million people are affected worldwide. Infestation occurs by wading or bathing in water contaminated by immature forms of the fluke called cercariae. SYN: *bilharziasis*.

TREATMENT: The drug of choice is praziquantel.

schistosomicide (skīs'tō-sō'mī-sī) [*+ + L. cidus, killing*] A drug or toxin that kills parasites of the genus *Schistosoma*.

schistosternia (skīs'tō-stēr'nē-ā) [*+ sternon, chest*] Schistothorax.

schistothorax (skīs'tō-thō'rāks) [*+ thorax, chest*] A fissure of the thorax. SYN: *schistosternia*.

schizamnion (skīz-ām'nē-ōn) [Gr. *schizein*, to divide, + *amnion*, lamb] An amnion formed by development of a cavity in the inner cell mass.

schizaxon (skīz-āk'sōn) [*+ axon, axle*] An axon that divides in two equal, or nearly equal, branches.

schizencephaly (skīz'ēn-sēf'ā-lē) [*+ enkephalos, brain*] The presence of one or more clefts running lengthwise through the cerebral hemispheres.

schizo- (skīz'ō) Combining form indicating *division*.

schizocyte (skīz'ō-sīt) [*+ kytos, cell*] Schistocyte.

schizocytosis (skīz'ō-sī-tō'sīs) [*+ + osis, condition*] Schistocytosis.

schizogenesis (skīz'ō-jēn'ēs-īs) [*+ genesis, generation, birth*] Reproduction by fission.

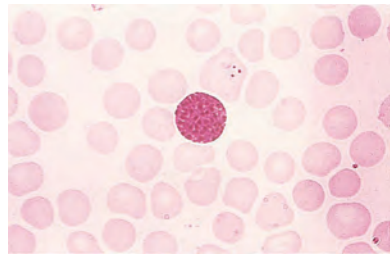
schizogony (skīz-ōg'ō-nē) [*+ gone,*

seed] Asexual reproduction by fission of a cell. Malarial parasites and species of sporozoa (such as *Cryptosporidia*) can reproduce using schizogony. They can also reproduce sexually.

schizogyria (skīz'ō-jī'rē-ā) [*+ gyros, a circle*] A cleft in the cerebral convolutions.

schizoid (skīz'oyd) [*+ eidos, form, shape*] **1.** Severely introverted; socially isolated; lacking close personal relationships or the ability to form them. **2.** Resembling schizophrenia.

schizont (skīz'ōnt) [*+ ontos, being*] **1.** A stage appearing in the life cycle of a sporozoan protozoan resulting from multiple division or schizogony. **2.** A stage in the asexual phase of the life cycle of *Plasmodium* organisms found in red blood cells. By schizogony, each gives rise to 12 to 24 or more merozoites. An early schizont is called a *presegmenter*; a mature schizont is called a *rosette* or *segmenter*. SEE: *illus.*



MATURE SCHIZONT IN PLASMODIUM VIVAX

schizonticide (skī-zōn'tī-sīd) [*+ + + L. cidus, killing*] Something that destroys schizonts.

schizonychia (skīz'ō-nīk'ē-ā) [*+ onyx, nail*] Splitting of the nails.

schizophasia (skīz'ō-fā'zē-ā) [*+ phasis, speech*] Speech marked by looseness of associations and flights of ideas.

schizophrenia (skīz'ō-frēn'ē-ā) [Gr. *schizein*, to divide, + *phren*, mind] A thought disorder affecting about 0.4% to 1.2% of the population, marked by delusions, hallucinations, and disorganized speech and behavior (the "positive" symptoms) and by flat affect, social withdrawal, and absence of volition (the "negative" symptoms). Schizophrenia involves dysfunction in one or more areas such as interpersonal relations, work or education, or self-care. Associated features include inappropriate affect, anhedonia, dysphoric mood, abnormal psychomotor activity, cognitive dysfunction, confusion, lack of insight, and depersonalization. Abnormal neurological findings may show a broad range of dysfunction including slow reaction time, poor coordination, abnor-

malities in eye tracking, and impaired sensory gating. Some individuals drink excessive amounts of water (water intoxication) and develop abnormalities in urine specific gravity or electrolyte imbalance. Because none of its clinical features are diagnostic, schizophrenia remains a diagnosis of exclusion. It is important to exclude psychoses with known organic causes such as temporal lobe epilepsy, metabolic disturbances, toxic substances, or psychoactive drugs. The onset of schizophrenia typically occurs between the late teens and the mid-30s; onset prior to adolescence is rare. Gender differences suggest that women are more likely to have a later onset, more prominent mood symptoms, and a better prognosis. Hospital-based studies show a higher rate of schizophrenia in men, whereas community-based studies suggest an equal sex ratio. SEE: *Nursing Diagnoses Appendix*. **schizophrenic** (-ik), *adj.*

ETIOLOGY: The cause of schizophrenia is unknown.

TREATMENT: Medications used to control schizophrenia include antipsychotic drugs that act on dopamine receptors in the brain, such as chlorpromazine, fluphenazine, haloperidol, clozapine, and risperidone. Each of these may be associated with significant side effects; as a result, drug treatment with any of them requires careful monitoring. Supportive psychotherapy or cognitive behavioral therapy may be helpful for the patient and family.

PROGNOSIS: After initial diagnosis, about one in five patients have well-controlled disease. Eighty percent of affected people suffer frequent relapses that may result in periodic hospitalizations, intensive treatment, or crisis management.

catatonic s. A schizophrenic disorder marked by motor immobility or stupor; excessive, purposeless motor activity; extreme negativism or mutism; echolalia or echopraxia; and peculiar voluntary movements such as posturing.

paranoid s. A type of schizophrenic disorder characterized by delusions of persecution, grandiosity, jealousy, or hallucinations with persecutory or grandiose content.

residual s. A schizophrenic disorder marked by continuing evidence of flat affect, impoverished or disorganized speech, and eccentric or odd behavior but showing no evidence of delusions, hallucinations, or disorganized speech.

schizotrichia (skīz'ō-trīk'ē-ā) [" + *thrix*, hair] Splitting of the tips of the hair.

schizozoite (skīz'ō-zō'it) [" + *zoon*, animal] Merozoite.

Schmorl's disease (shmorlz) [Christian G. Schmorl, Ger. pathologist, 1861–

1932] Herniation of the nucleus pulposus through a cracked vertebral end plate into the vertebral body. The resulting bone necrosis is detectable on radiograph and is called *Schmorl's nodes*.

Schmorl's nodes SEE: *Schmorl's disease*.

Schnyder's crystalline dystrophy [Walter F. Schnyder] An autosomal dominantly inherited corneal disease, characterized by ring-shaped deposits of cholesterol crystals in the anterior corneal stroma. The disease may cause visual impairment.

Schober's maneuver (shō'bérz) A test for flexibility of the lumbar spine; used to determine the presence of ankylosing spondylitis (AS) in patients with low back pain.

PATIENT CARE: The patient is asked to stand erect and a mark is placed on the skin overlying the second sacral vertebra. A second mark is placed on the skin 10 cm above the first. The patient then is asked to bend forward. A repeat measurement of the distance between the two marks should equal or exceed 15 cm. If it does not, the patient may have an inflexible or "bamboo" spine, characteristic of AS.

School Function Assessment ABBR: SFA. A rating scale used to measure a student's ability to function effectively on his or her own and with peers in elementary school. The SFA assesses a child's abilities in self-care, mobility, and social interaction and is used as a gauge for determining those children who qualify for special assistance in the classroom and the schoolyard.

school phobia, school refusal A child's avoidance of school, often through the simulation of physical ailments. It is considered to be a form of separation anxiety rather than truancy.

Schultze mechanism (shoolts'ē) Placental expulsion with the fetal surface presenting. This indicates placental separation progressed from the inside to the outer margins.

Schultz reaction (shoolts'is) [Werner Schultz, Ger. physician, 1878–1947] Dale reaction.

Schwalbe's ring (shvāl'bēz) [Gustav Albert Schwalbe, Ger. anatomist, 1844–1916] The thickened peripheral margin of the Descemet's membrane of the cornea of the eye; it is formed by a circular bundle of connective tissue. Also called *Schwalbe's line*.

Schwann cell (shvön) [Theodor Schwann, Ger. anatomist, 1810–1882] One of the cells of the peripheral nervous system that form the myelin sheath and neurilemma of peripheral nerve fibers. In the embryo, the Schwann cells grow around the nerve fiber, forming concentric layers of cell membrane (the myelin sheath). The cy-

toplasm and nuclei of the Schwann cells, external to the myelin sheath, form the neurilemma. SEE: *neuron* for ill.

schwannoma (shwōn-nō'mā) A benign tumor of the neurilemma of a nerve.

schwannosis (shwōn-nō'sis) Hypertrophy of the neurilemma of a nerve.

sciage (sē-āzh') [Fr., a sawing] A movement of the hand used in massage resembling that used in sawing.

sciatic (sī-āt'ik) [L. *sciaticus*] 1. Pert. to the hip or ischium. 2. Pert. to, due to, or afflicted with sciatica. SEE: *sciatica*.

sciatica (sī-āt'ī-kā) [L.] A condition in which pain emanating from the lower back is felt along the distribution of the sciatic nerve in the lower extremity. It typically occurs as a result of lumbar disk disease and is felt in the back of the thigh and sometimes the rest of the leg. In Western countries like the U.S., about 40% to 50% of the population will experience sciatica at some time during their lives. Recovery follows conservative treatment in 3 to 4 weeks in the vast majority of patients. SEE: *meralgia*; *piriformis syndrome*; *sciatic nerve*; *Nursing Diagnoses Appendix*.

ETIOLOGY: The condition may be caused by compression or trauma of the sciatic nerve or its roots, esp. that resulting from a ruptured intervertebral disk or osteoarthritis of the lumbosacral vertebrae; inflammation of the sciatic nerve resulting from metabolic, toxic, or infectious disorders; or pain referred to the distribution of the sciatic nerve from other sources.

SYMPTOMS: This condition may begin abruptly or gradually and is characterized by a sharp shooting pain running down the back of the thigh. Movement of the limb or lower back generally intensifies the suffering. Pain may be uniformly distributed along the limb, but frequently there are certain spots where it is more intense. Numbness and tingling may be present, and the skin innervated by the nerve may occasionally be hypersensitive to light touch.

DIAGNOSIS: Physical examination of the patient with sciatica may reveal pain in the lower back during straight leg raising or changes in lower extremity reflexes.

TREATMENT: Although sciatica may be extremely painful and temporarily disabling, in more than 80% of patients it gradually resolves with mild activity restrictions and nonsteroidal anti-inflammatories, narcotic analgesic drugs, or muscle relaxants. Patients whose symptoms do not improve with these therapies should be reevaluated professionally. Occasionally surgery of the lower back (e.g., to remove a herniated disk) is needed, although this interven-

tion is now used much less often than in the past.

PATIENT CARE: Patients with sciatica who have had a history of cancer, injecting drugs, have fevers associated with sciatica, or lose control of bowel or bladder function in association with the illness should be evaluated immediately with radiographic studies of the lower back (e.g., computerized tomographic or magnetic resonance scans). Elderly patients also may require earlier and closer follow-up care than younger patients. Patients for whom sciatic pain is disabling but in whom objective pathology is not easily demonstrated may benefit from multidisciplinary approaches to their symptoms (e.g., with referrals to chronic pain clinics, physical and occupational therapists, physiatrists, or other specialists).

extraspinal s. Piriformis syndrome.

sciatic nerve The thickest nerve in the body, the main trunk of the sciatic plexus and carrying axons from spinal segments L4-S3 to the hip and lower extremities. It emerges from the pelvic cavity in the back of the hip through the greater sciatic foramen. The nerve is composed of two side-by-side components, the tibial nerve and the common fibular (peroneal) nerve.

SCID *Severe combined immunodeficiency disease.*

science (sī'ēns) [L. *scientia*, knowledge] The intellectual process using all available mental and physical resources to better understand, explain, quantify, and predict normal as well as unusual natural phenomena. The scientific approach involves observation, measurement, and the accumulation and analysis of verifiable data.

life s. The scientific disciplines concerned with living things; included are biology, zoology, medicine, dentistry, surgery, nursing, and psychology.

Science Citations Index ABBR: SCI. An electronic database of scientific journal articles published and referred to by other authors.

The Index is a proprietary product of the Thomson Corporation.

Science of Unitary Human Beings A conceptual model of nursing developed by Martha Rogers. The human being and the environment are conceived of as being unitary, patterned, open, and pan-dimensional energy fields. The goal of nursing is to promote human betterment wherever people are. SEE: *homeodynamics*; *Nursing Theory Appendix*.

scieropia (sī-ēr-ō'pē-ā) [Gr. *skieros*, shadow, + *opsis*, vision] Abnormal vision in which things appear to be in a shadow.

scimitar syndrome A rare congenital malformation of the heart and lungs, marked by dextroposition of the heart,

a malformed right lung, abnormal connections between the right pulmonary veins and the inferior vena cava, and abnormal pulmonary arterial connections to the right lung.

scintigram (sĭn'tĭ-grām) The record produced by a scintiscan.

scintigraphy (sĭn-tĭg'rá-fē) The injection and subsequent detection of radioactive isotopes to create images of body parts and identify body functions and diseases.

scintillation (sĭn'tĭ-lā'shŭn) [L. *scintillatio*] 1. Sparkling; a subjective sensation, as of seeing sparks. 2. The response of specific crystals to electromagnetic radiation, such as the emissions that come from radioactive substances.

scintimammography (sĭn'tĭ-mā-mŏg'rŏ-fē) [scinti(lation) + ""] Mammography enhanced by a radioactive isotope study of healthy and malignant breast tissue. The radioactive tracer is injected into a peripheral vein and is taken up by metabolically active cells. Breast cancer cells are metabolically more active than normal tissues, take up more tracer, and on the image appear brighter than the surrounding healthy cells. Scintimammography can be used to identify breast cancers that are otherwise difficult to visualize and to guide breast biopsies.

scintiphotography (sĭn'tĭ-fŏ-tŏg'rā-fē) Making images from radioactive emissions, for example, from radioisotopes injected into the body to determine the health or disease of body structures and functions. SEE: *scintigraphy*.

scintiscan (sĭn'tĭ-skān) The use of scintiphotography to create a map of scintillations produced when a radioactive substance is introduced into the body. The intensity of the record indicates the differential accumulation of a substance in the various parts of the body.

scintiscanner (sĭn'tĭ-skān'ēr) The device used in doing a scintiscan.

scirrho- A combining form meaning *hard*.

scirrhoid (skĭr'oyd) [Gr. *skirrhos*, hard, + *eidōs*, form, shape] Pert. to or like a hard carcinoma.

scirrhoma (skĭr-ŏ'mā) [" + *oma*, tumor] A hard carcinoma, i.e., one with tough or dense connective tissue within it.

scirrhous (skĭr'rŭs) [NL. *scirrhosus*, hard] Hard, like a scirrhous.

scirrhus (skĭr'ŭs) [Gr. *skirrhos*, hard tumor] A hard, cancerous tumor caused by an overgrowth of fibrous tissue.

scission (sĭzh'ŭn) [L. *scindere*, to split] Dividing, cutting, or splitting.

scissors (sĭz'ors) [LL. *cisorium*] A cutting instrument composed of two opposed cutting blades with handles, held together by a central pin. This allows

the cutting edge to be opened and closed.

scissura (sĭ-sŭ'rā) *pl. scissuræ* [L., to split] A fissure or cleft; a splitting.

sclera (sklēr'ā) *pl. sclerae* [Gr. *skleros*, hard] The outer layer of the eyeball made of fibrous connective tissue. At the front of the eye, it is visible as the white of the eye and ends at the cornea, which is transparent. **scleral**, *adj.*

blue s. An abnormal thinning of the sclera through which a blue uveal pigment is seen. This may be found in people with disorders of collagen formation such as osteogenesis imperfecta.

scleradenitis (sklēr'rād-ĕn-ĭ'tis) [" + *aden*, gland, + *itis*, inflammation] Inflammation and induration of a gland.

scleratogenous (sklēr'rā-tŏj'ĕ-nŭs) Sclerogenous.

sclerectasia (sklēr'rĕk-tā'zĕ-ā) [" + *ektasis*, dilatation] Protrusion of the sclera.

sclerectomy (sklēr'rĕk'tŏ-mĕ) [" + *ektome*, excision] 1. Excision of a portion of the sclera. SYN: *scleroticectomy*. 2. Removal of adhesions in chronic otitis media.

scleredema (sklēr'ĕ-dĕ-mā) [" + *oedema*, swelling] Induration of the skin of the upper back and neck, usually occurring in association with type 2 DM, and occasionally in patients after acute streptococcal infections. In diabetic patients it may regress with strict control of blood sugars. SEE: *illus.*



SCLEREDEMA

s. adultorum Buschke's scleredema. **Buschke's s.** SEE: *Buschke's scleredema*.

s. neonatorum Scleroderma neonatorum.

sclerema (sklēr-rĕ'mā) [Gr. *skleros*, hard] Scleroderma.

s. neonatorum Hardening and tightening of the skin and subcutaneous tissue of the newborn. This is a rare disease, sometimes associated with premature birth, neonatal sepsis, and

dehydration. SYN: *sclerema adiposum*; *scleroderma neonatorum*.

sclerencephalia (sklĕ'rĕn-sĕ-fă'lĕ-ă) [" + *enkephalos*, brain] Sclerosis of the brain.

scleritis (sklĕ-rĭ'tis) [" + *itis*, inflammation] Inflammation of the sclera. SYN: *scleritis*. SEE: *episcleritis*.

annular s. Inflammation limited to the area surrounding the limbus of the cornea. A complete ring is formed.

anterior s. Scleritis of the area adjacent to the limbus of the cornea.

posterior s. Scleritis limited to the posterior half of the globe of the eye with loss of vision and ocular pain.

scleroblastema (sklĕ'rō-blăs-tĕ'mă) [Gr. *scleros*, hard, + *blastema*, sprout] The embryonic tissue from which formation of bone takes place.

scleroblastic (sklĕ'rō-blăs-tĕm'ĭk) Relating to or derived from scleroblastema.

sclerochoroiditis (sklĕ'rō-kō'royd-ĭ'tis) [" + *chorioeides*, skinlike, + *itis*, inflammation] Inflammation of the sclera and choroid coat of the eye.

posterior s. Posterior staphyloma.

scleroconjunctival (sklĕ'rō-kōn'jŭnk-tĭ'văl) [" + L. *conjunctivus*, to bind together] Pert. to the sclera and conjunctiva.

sclerocornea (sklĕ'rō-kor'nĕ-ă) [" + L. *corneus*, horny] The sclera and cornea together considered as one coat.

sclerodactylia (sklĕ'rō-dăk-tĭl'ĕ-ă) [" + *daktylos*, a finger] Induration of the skin of the fingers and toes. SYN: *acroscleroderma*.

scleroderma (sklĕ'ră-dĕr'mă) [Gr. *scleros*, hard, + *derma*, skin] A chronic manifestation of progressive systemic sclerosis in which the skin is taut, firm, and edematous, limiting movement. SEE: *illus.*; *sclerosis*, *progressive systemic*; *Nursing Diagnoses Appendix*. **sclerodermatous**, *adj.*



SCLERODERMA

circumscribed s. Localized patches of linear sclerosis of the skin. There is no systemic involvement, and the course of the disease is usually benign.

s. neonatorum Sclerema neonatorum.

sclerodermatitis (sklĕ'rō-dĕr-mă-tĭ'tis) [-

Gr. *scleros*, hard, + *derma*, skin, + *itis*, inflammation] Inflammation of the skin accompanied by thickening and hardening.

sclerogenic (sklĕ'rō-jĕn'ĭk) [" + *genan*, to produce] Sclerogenous.

sclerogenous (sklĕ-rōj'ĕ-nŭs) [" + *genan*, to produce] Causing sclerosis or hardening of tissue. SYN: *sclerogenic*.

scleroid (sklĕ'rōyd) [" + *eidos*, form, shape] Having a hard or firm texture.

scleroiditis (sklĕ'rō-ĭ-rĭ'tis) [" + *iris*, colored circle + *itis*, inflammation] Inflammation of both the sclera and the iris.

sclerokeratitis (sklĕ'rō-kĕr-ă-tĭ'tis) [" + *keras*, horn, + *itis*, inflammation] Cellular infiltration with inflammation of the sclera and cornea. SYN: *sclerokeratosis*.

sclerokeratoiritis (sklĕ'rō-kĕr'ă-tō-ĭ-rĭ'tis) [" + " + *iris*, colored circle, + *itis*, inflammation] Inflammation of the sclera, cornea, and iris.

sclerokeratosis (sklĕ'rō-kĕr'ă-tō'sis) [" + " + *osis*, condition] Sclerokeratitis.

scleroma (sklĕ-rō'mă) [" + *oma*, tumor] Indurated, circumscribed area of granulation tissue in the mucous membrane or skin. SEE: *sclerosis*.

scleromalacia (sklĕ'rō-mă-lă'sĕ-ă) [Gr. *scleros*, hard, + *malakia*, softening] A softening of the sclera.

s. perforans Scleromalacia accompanied by perforation.

scleromyxedema (sklĕ'rō-mĭk'sĕ-dĕ'mă) [" + *myxa*, mucus, + *oidema*, swelling] A systemic form of papular mucinosis (also known as lichen myxedematosus), in which a scleroderma-like rash is accompanied by lesions of visceral organs and often paraproteinemia.

scleronychia (sklĕ'rō-nĭk'ĕ-ă) [" + *onyx*, nail] Thickening and hardening of the nails.

scleronyxis (sklĕ-rō-nĭk'sis) [Gr. *scleros*, hard, + *nyxis*, a piercing] Surgical puncture of the sclera. SYN: *scleroticonyxis*; *scleroticopuncture*.

sclero-oophoritis (sklĕ'rō-ō-ōf'ō-rĭ'tis) [" + *oophoros*, bearing eggs, + *itis*, inflammation] Induration and inflammation of the ovary.

sclerophthalmia (sklĕ'rōf-thăl'mĕ-ă) [" + *ophthalmos*, eye] A congenital condition in which opacity of the sclera advances over the cornea.

scleroplasty (sklĕ'rō-plăs'tĕ) [" + *plassein*, to form] Plastic surgery of the sclera.

scleroprotein (sklĕ'rō-prō'tĕ-ĭn) [" + *protos*, first] A group of proteins noted for their insolubility in most chemicals; found in skeletal tissue, cartilage, hair, and nails and in animal claws and horns.

sclerosal (sklĕ-rō'săl) Sclerous.

sclerosant (sklĕ-rō'sănt) [Gr. *scleros*,

hard] Something that produces sclerosis.

sclerose (sklĕ-rōs') [Gr. *skleros*, hard] To become hardened. **sclerosing**, **sclerosed**, *adj.*

sclerosis (sklĕ-rō'sis) [Gr. *sklerosis*, to harden] A hardening or induration of an organ or tissue, esp. that due to excessive growth of fibrous tissue. SEE: *arteriosclerosis*; *cerebroscclerosis*. **sclerotic** (-rōt'ik), *adj.*

amyotrophic lateral s. ABBR: ALS. Motor neuron disease. SEE: *Nursing Diagnoses Appendix*.

annular s. Sclerosis in which a hardened substance forms a band about the spinal cord.

arterial s. Arteriosclerosis.

arteriolar s. Sclerosis of the arterioles.

diffuse s. Sclerosis affecting large areas of the brain and spinal cord.

hyperplastic s. Medial s.

insular s. Multiple s.

intimal s. Atherosclerosis.

lateral s. Sclerosis of the lateral column of the spinal cord. SEE: *amyotrophic lateral sclerosis*.

lobar s. Sclerosis of the cerebrum resulting in mental disturbances.

medial s. Sclerosis involving the tunica media of arteries, usually the result of involutional changes accompanying aging. SYN: *hyperplastic sclerosis*.

multiple s. SEE: *multiple sclerosis*.

myelinoclastic diffuse s. Schilder's disease.

neural s. Sclerosis with chronic inflammation of a nerve trunk with branches.

nuclear s. An increase in the refractive index of the eye's crystalline lens, which culminates in the development of nuclear cataracts. Before the cataract fully opacifies, the patient's near vision may improve, a phenomenon known as senopia or "second sight."

progressive systemic s. ABBR: PSS. SEE: *progressive systemic sclerosis*.

renal s. Nephrosclerosis.

systemic s. Progressive systemic sclerosis.

tuberous s. ABBR: TS. An autosomal dominant disorder in which multiple tumors appear in the skin, brain, heart, and kidneys of affected children. Infants born with this disease may have facial angiofibromas, astrocytomas of the central nervous system, hamartomas of the retina, and other lesions, producing hydrocephalus, mental retardation, autism, and seizures. SYN: *Bourneville disease*.

vascular s. Atherosclerosis.

venous s. Phlebosclerosis.

sclerostenosis (sklĕr'ō-stĕ-nō'sis) [" + *stenosis*, act of narrowing] Contraction

and induration of tissues, esp. those about an orifice.

sclerostomy (sklĕ-rōs'tō-mĕ) [" + *stoma*, mouth] The surgical formation of an opening in the sclera.

sclerotherapy (sklĕr'ō-thĕr'ā-pĕ) [" + *therapeia*, treatment] The injection of irritating chemicals into vascular spaces or body cavities to harden, fill, or destroy them. Sclerotherapy has been used to manage varicose veins, hemorrhoids, esophageal varices, benign hepatic cysts, malignant pleural effusions, and intracranial aneurysms, among other diseases. A common complication of the procedure is injury to neighboring tissues. Commonly used sclerosing agents include absolute ethanol and sodium tetradecyl sulfate.

sclerothrix (sklĕr'ō-thrĭks) [" + *thrix*, hair] Brittleness of the hair.

sclerotica (sklĕ-rōt'ī-kā) [L. *scleroticus*, hard] Sclera.

sclerotic dentin Areas of dentin where the tubules have been filled by mineralization, producing a denser, radiopaque dentin; it is often produced in response to caries, attrition, and abrasion.

sclerotium (sklĕ-rō'shĕ-ūm) A hardened mass formed by the growth of certain fungi. The sclerotium formed by ergot on rye is of medical importance due to its toxicity.

sclerotome (sklĕr'ō-tōm) [" + *tome*, incision] **1.** A knife used in incision of the sclera. **2.** One of a series of segmentally arranged masses of mesenchymal tissue lying on either side of the notochord. They give rise to the vertebrae and ribs.

sclerotomy (sklĕ-rōt'ō-mĕ) Surgical incision of the sclera.

anterior s. An incision made at the angle of the anterior chamber of the eye in glaucoma.

posterior s. An incision through the sclera into the vitreous for treatment of a detached retina or removal of a foreign body.

sclerous (sklĕr'ūs) Hard; indurated. SYN: *sclerosal*.

SCN5A sodium channel A sodium channel found in heart muscle cells. Mutations in this channel produce cardiomyopathy and dysrhythmias, including atrial fibrillation.

scoleciasis (skō-lĕ-sī'ā-sĭs) [Gr. *skolex*, worm, + *-iasis*, condition] The presence of larval forms of butterflies or moths in the body.

scoleciform (skō-lĕs'ī-form) [" + L. *forma*, form] Resembling a scolex.

scolecoid (skō'lĕ-koyd) [" + *eidōs*, form, shape] Resembling a worm.

scolex (skō'lĕks) *pl.* **scolices** [Gr. *skolex*, worm] The headlike segment of a tapeworm, by which it attaches itself to the wall of the intestine. Scolices usually possess hooks, suckers, or grooves (bothria) for attachment.

scoli-, scolio- Combining forms meaning *crooked or bent*.

scoliometer (skō'lē-ōm'ēt-ēr) [*" + metron, measure*] A device for measuring curves, esp. the lateral ones of the spine.

scoliosis (skō'lē-ō'sīs) [Gr. *skoliosis, crookedness*] A lateral curvature of the spine. It usually consists of two curves, the original abnormal curve and a compensatory curve in the opposite direction. Scoliosis may be functional, structural, or idiopathic. Functional (postural) scoliosis usually occurs as a result of a discrepancy in leg length and corrects when the patient bends toward the convex side. Structural scoliosis is related to vertebral bone deformities and thus does not correct with posture changes. Idiopathic scoliosis (the most common kind) may be transmitted as an autosomal dominant or multifactorial trait. **SEE: illus.; Nursing Diagnoses Appendix.**



SCOLIOSIS

SYMPTOMS: Scoliosis rarely produces any symptoms until it is well established; then backache, fatigue, and dyspnea from ventilatory compromise may occur. Diagnosis is based on physical examination, anteroposterior and lateral spinal x-rays, and by using the Cobb method to measure the angle of curvature.

TREATMENT: Scoliosis may be treated through the use of a brace to straighten the abnormal spinal curvature or with corrective orthopedic surgery (e.g., the placement of a supportive rod along the spine or spinal fusion).

PATIENT CARE: Muscle strengthening exercises should be done daily while in and out of the brace. Follow-up as-

essment and brace adjustment should be done periodically. As the skeleton matures, brace wear is gradually reduced to night-time use only. Surgery is indicated for scoliosis that progresses despite bracing. Postoperative visits are required for several months to monitor correction stability. Provisions are made to assist the adolescent and family to meet the psychosocial needs associated with the illness. The patient and family are taught about treatment management (cast-care, brace-use, traction, electrical stimulation, or surgery), exercises, activity level, skin care, prevention of complications, and breathing exercises. When necessary, preoperative teaching is provided, including pre-anesthesia breathing exercises, post-operative use of an incentive spirometer, surgical pain management, and prevention of thromboembolic or other complications. Following surgery, all general patient care concerns apply.

Upon discharge, home-health care may be needed, and the school-age child or adolescent will require education in the home until he or she is able to return to school. Activity and activity limitations are explained, and diversional activities suggested. The patient is encouraged to provide self-care as much as possible. Wearing his/her own clothes, washing and styling his/her own hair, and applying make-up help to enhance morale. Educational and support resources are discussed with the patient and family. Nurses who work in educational settings routinely screen children for scoliosis during physical examinations.

cicatricial s. Scoliosis due to fibrous scar tissue contraction resulting from necrosis.

congenital s. Scoliosis present at birth, usually the result of defective embryonic development of the spine.

coxitic s. Scoliosis in the lumbar spine caused by tilting of the pelvis in hip disease.

empyematic s. Scoliosis following empyema and retraction of one side of the chest.

functional s. Scoliosis that is caused not by actual spinal deformity but by another condition such as unequal leg lengths. The curve reduces when the other condition is ameliorated.

habit s. Scoliosis due to habitually assumed improper posture or position.

inflammatory s. Scoliosis due to disease of the vertebrae.

ischiatric s. Scoliosis due to hip disease.

myopathic s. Scoliosis due to weakening of the spinal muscles.

neuropathic s. A structural scoliosis caused by congenital or acquired neurological disorders.

ocular s. Scoliosis from tilting of the

head because of visual defects or extraocular muscle imbalance.

osteopathic s. Scoliosis caused by bony deformity of the spine. SEE: *structural s.*

paralytic s. Scoliosis due to paralysis of muscles.

protective s. An acute side shifting of the lumbar spine, usually away from the side of pathology. The body is attempting to move a nerve root away from a bulging intervertebral disk herniation.

rachitic s. Scoliosis due to rickets.

sciatic s. The patient assumes a laterally bent posture to reduce sciatic nerve symptoms.

static s. Scoliosis due to a difference in the length of the legs.

structural s. An irreversible lateral spinal curvature that has a fixed rotation. The vertebral bodies rotate toward the convexity of the curve; the rotation results in a posterior rib hump in the thoracic region on the convex side of the curve. In structural scoliosis, the spine does not straighten when the patient bends.

scoliotic (skō-lē-ōt'ik) Suffering from, or related to, scoliosis.

scombroid (skōm'broyd) Fish of the suborder Scombroidea, including mackerel, tuna, bonito, albacore, and skipjack.

scombroid fish poisoning SEE: *under poisoning.*

scoop (skoop) [ME., a ladle] A spoon-shaped surgical instrument.

bone s. A curette for scraping or removing necrosed bone or the contents of suppurative tracts.

bullet s. An instrument for dislodging bullets.

cataract s. An instrument for removing fluids or foreign growths.

ear s. A curet for removing middle ear granulations.

lithotomy s. An instrument for dislodging encysted stones or debris.

mastoid s. An instrument used in mastoid operations.

renal s. An instrument used to dislodge or remove small stones from the pelvis of a kidney.

-scope [Gr. *skopein*, to examine] Combining form, used as a suffix, meaning *to view, to examine.*

scopophilia (skō'pō-fil'ē-ä) [" + *phil-ēin*, to love] The derivation of sexual pleasure from visual sources such as nudity and obscene pictures.

active s. Voyeurism.

passive s. Sexual pleasure derived from being observed by others.

-scopy [Gr. *skopein*, to examine] Combining form meaning *to examine*, esp. with a device or tool.

scorbutic (skor-bū'tik) [NL. *scorbuticus*, scurvy] Concerning or affected with scurvy.

scorbutigenic (skor-bū'ti-jën'ik) [LL. *scorbutus*, scurvy, + Gr. *gennan*, to produce] Something that causes scurvy.

scorbutus (skor-bū'tūs) [LL., scurvy] Scurvy.

score (skor) **1.** A rating tool or scale to assess the level of health or the severity of an illness. SEE: *index, DMF; periodontal (Ramfjord) index.* **2.** A rating or grade as compared with a standard of other individuals, esp. in a competitive event. **3.** To mark the skin with lines in order to have landmarks available, as in plastic surgery.

Bishop's s. SEE: *Bishop's score.*

C.R.O.P. S. A critical care assessment score that measures compliance, respiratory rate, oxygenation, and pressure values.

S. for Neonatal Acute Physiology A a measure of the severity of illness in patients in neonatal intensive care.

scorpion (skor'pē-ōn) [Gr. *skorpis*, to cut off] An arthropod of the class Arachnida and order Scorpionida. It varies in length from less than 2 in (5 cm) for the small bark scorpions of Arizona to 8 in (20 cm) for some African scorpions. Most scorpions are nocturnal and reclusive and are most active when the night temperatures remain above 70°F (21°C). The tail of the scorpion contains two venom glands connected to the tip of the stinger.

scoto- (skō'tō) Combining form meaning *darkness.*

scotoma (skō-tō'mä) *pl. scotomata* [Gr. *skotoma*, to darken] An island-like blind spot in the visual field.

absolute s. An area in the visual field in which there is absolute blindness.

annular s. A scotomatous zone that encircles the point of fixation like a ring, not always completely closed but leaving the fixation point intact. SYN: *ring scotoma.*

arcuate s. An arc-shaped scotoma near the blind spot of the eye. It is caused by a nerve bundle defect on the temporal side of the optic disk.

central s. An area of depressed vision involving the point of fixation, seen in lesions of the macula.

centrocecal s. A defect in vision that is oval-shaped and includes the fixation point and the blind spot of the eye.

color s. Color blindness in a limited portion of the visual field.

eclipse s. An area of blindness in the visual field caused by looking directly at a solar eclipse.

flittering s. Scintillating s.

negative s. A scotoma not perceptible by the patient.

peripheral s. A defect in vision removed from the point of fixation of the vision.

physiological s. A blind spot caused by an absence of rods and cones where the optic nerve enters the retina.

positive s. An area in the visual field that is perceived by the patient as a dark spot.

relative s. A scotoma that causes the perception of an object to be impaired but not completely lost.

ring s. Annular s.

scintillating s. An irregular outline around a luminous patch in the visual field that occurs following mental or physical labor, eyestrain, or during a migraine.

scotometer (skō-tōm'ēt-ēr) [*l'* + *metron*, a measure] A device for detecting and measuring scotomata in the visual field.

scotometry (skō-tōm'ē-trē) The locating and measurement of scotomata.

scotopia (skō-tō'pē-ā) [*l'* + *ops*, eye] Adjustment of the eye for vision in dim light; the opposite of photopia. **scotopic** (-tōp'ik), *adj.*

scotopsin (skō-tōp'sin) The protein portion of the rods of the retina of the eye. It combines with 11-*cis*-retinal to form rhodopsin.

scout film In radiology, an x-ray film, esp. of the abdomen, for evaluating the condition of the body prior to beginning an invasive or potentially hazardous examination.

scr *scruple*.

scrape (skrāp) To remove from the surface with a scalpel or other edged instrument.

scraping (skrā'ping) Removal of cells, as from diseased tissue, with an edged instrument for cytologic examination. **SEE: illus.**



SCRAPING A BLISTER

scratch (skrāch) [ME. *cracchen*, to scratch] **1.** A mark or superficial injury produced by scraping with the nails on a rough surface. **2.** To make a thin, shallow cut with a sharp instrument. **3.** To rub the skin, esp. with the fingernails, to relieve itching. Scratching temporarily relieves itching by soothing the cutaneous nerves, but in the long run, it may worsen the condition that caused the itching. **SEE: pruritus.**

scratch test Placement of an appropriate

dilution of a test material suspected of being an allergen in a lightly scratched area of the skin. If the material is an allergen, a wheal will develop within 15 min. The scratch test is used to detect IgE antibody responses, (e.g., in patients with a history of allergy to penicillin). **SEE: skin test.**

screen [O.Fr. *escren*] **1.** To determine the presence of a disease or its characteristics in a broad community or a selected group. **2.** A structure or substance used to protect, guard, or shield from a damaging influence such as x-rays, ultraviolet light, or insects. **3.** A system used to select or reject personnel. **4.** In psychiatry, the blocking of one memory with another.

intensifying s. In radiography, a paired sheet of photostimulable (fluorescent) materials surrounding the x-ray film, used to translate an incoming image carried by x-ray photons into light. Light exposes x-ray film more readily than does photon radiation; the use of intensifying screens reduces the need for high levels of radiation exposure during imaging.

tangent s. A simple device used in perimetry to test the central portion of the visual field. **SEE: Bjerrum's screen.**

screening **1.** Evaluating patients for diseases such as cancer, heart disease, or substance abuse before they become clinically obvious. Screening can play an important part in the early diagnosis and management of selected illnesses and in some instances prolongs lives. **SYN: screening test.** **2.** In psychiatry, the initial examination to determine the mental status of a person and the appropriate initial therapy.

cancer screening A program to detect cancer before it causes symptoms or signs, esp. before it metastasizes and threatens life or health. Common modes of cancer screening include Pap testing for cervical cancer and mammography for breast cancer.

high-throughput s. The testing of the biological or pharmacological properties of molecules by immersion in a large number of chemical baths or cellular systems. It is used, e.g., to determine whether any of a group of chemicals has specific therapeutic actions.

newborn s. The testing of infants in the first days of life for serious illnesses (e.g., congenital deafness, cystic fibrosis, hemoglobinopathies, hypothyroidism, and phenylketonuria).

universal newborn hearing s. **ABBR: UNHS.** A public health effort to identify infants born with impaired hearing at the earliest possible age (e.g., before 6 months). UNHS has been implemented by most states in the U.S. to identify those infants whose hearing loss is more than 40 decibels below the

mean (i.e., those infants with the greatest risk of impaired speech acquisition in childhood). Children with profound hearing loss are at risk for poor achievement in school and diminished success in work as adults.

screening test Screening.

screening test, cholesterol A preventive strategy for measuring cholesterol levels in asymptomatic people to identify those with high cholesterol (who are at risk for cardiovascular disease) and begin therapy to lower these levels. SEE: *cholesterol* for table.

screening test, multiphasic A battery of tests used to attempt to determine the presence of one or more diseases.

screw (skroo) A cylindrical fastener with a spiral groove running along its surface, often used in surgeries as an internal fixator (e.g., to attach bones to plates or prostheses).

expansion s. A mechanical device set into a removable or fixed appliance to enlarge the dental arch.

screw-in Implanted; permanently fastened to tissue. Said, for example, of catheter leads used for permanent or semipermanent cardiac pacemaking.

Scribner shunt (skrīb'nēr) [Belding Scribner, U.S. physician, 1921–2003] A tube, usually made of synthetic material, used to connect an artery to a vein. It is used in patients requiring frequent venipuncture as in hemodialysis. The shunts may develop complications such as infection, thrombosis, and release of septic emboli.

scrobiculate (skrō-bīk'ū-lāt) [L. *scrobiculus*, little trench] Having shallow depressions; pitted.

scrobiculus (skrō-bīk'ū-lūs) [L., little trench] A small groove or pit.

scrofula (skrōf'ū-lā) [L., breeding sow] A form of extrapulmonary tuberculosis in which there is infection of the cervical lymph nodes. It is most common in children under age 15 and may be present without obvious disease in the lung. Like other forms of TB, it is treated with antitubercular drugs (e.g., isoniazid, rifampin, pyrazinamide). SEE: *lymphadenitis, tuberculosis*.

scrotoctomy (skrō-tēk'tō-mē) [ʹ + Gr. *ektome*, excision] Excision of part of the scrotum.

scrotitis (skrō-tīt'īs) [ʹ + ʹ] Inflammation of the scrotum.

scrotocele (skrō'tō-sēl) [ʹ + Gr. *kele*, tumor, swelling] Hernia in the scrotum.

scrotoplasty (skrō'tō-plās'tē) [ʹ + Gr. *plassein*, to form] Plastic surgery on the scrotum.

scrotum (skrō'tūm) *pl. scrota, scrotums* [L., a bag] The pouch found in most male mammals that contains the testicles and part of the spermatic cord. Constituent parts of the scrotum are skin;

a network of nonstriated muscular fibers called dartos; cremasteric, spermatic, and infundibuliform fasciae; cremasteric muscle; and tunica vaginalis. **scrotal** (-tāl), *adj.*

scrubbing [MD. *schrubben*] **1.** Washing the hands, fingernails, and forearms, including the elbows, prior to donning appropriate gowns and gloves to participate in surgery or other sterile procedures. The precise procedure to follow usually is posted in a special area where the washing is done. It typically entails scrubbing with germicidal soap and water, and using a nail brush to remove debris. **2.** Preparing the skin of the patient for surgery with an antiseptic solution.

scrub typhus An acute febrile illness, occasionally complicated by pneumonia, meningoencephalitis, respiratory distress syndrome, or septic shock caused by *Orientia tsutsugamushi*. Generally limited to Asian and Pacific nations, the disease is transmitted to humans by the bites of infected mites and chiggers. It can be treated with tetracyclines or azithromycin. The mortality rate in untreated patients is about 1% to 4%. SYN: *mite-borne typhus; tsutsugamushi disease*.

scruple (skrū'pl) [L. *scrupulus*, small, sharp stone] ABBR: scr. Twenty grains in apothecaries' weight; 1.296 g.

scuba *self-contained underwater breathing apparatus*.

sculpt (skūlpt) [Fr. *sculpter*, to carve] To change the form or shape of a material, including a part of the body. In health care the term is applied to the contouring of both hard and soft tissues, e.g., using by exercise or cosmetic surgery.

Scultetus binder (skūl-tē'tūs) [Johann Schultes (Scultetus), German surgeon, 1595–1645] A many-tailed binder or bandage, applied around the abdomen so that the ends overlap each other as if they were roof shingles. The binder holds dressings in place and supports abdominal muscles postoperatively.

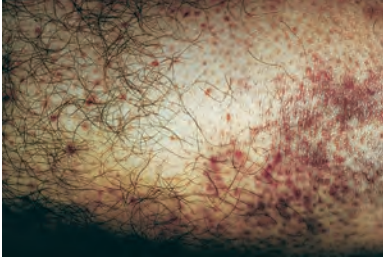
Scultetus position Position in which the head is low and the body is on an inclined plane.

scum (skūm) [ME. *scume*] Slimy floating islands of bacteria or impurities on the surface of a culture; an interrupted pellicle of bacterial growth.

scurf (skūrf) [AS. *scurf*] A branny desquamation of the epidermis, esp. on the scalp. SEE: *dandruff*.

scurvy (skūr'vē) [L. *scorbutus*] A disease caused by inadequate intake of ascorbic acid, whose symptoms include fatigue; skin, joint, and gum bleeding; impaired wound healing; dry skin; lower extremity edema; follicular hyperkeratosis; and coiling of body hairs. It is rare in Western nations, where it is

found primarily among alcoholics, the chronically mentally ill, and the socially isolated. It can be prevented with regular consumption of fruits and vegetables, foodstuffs that provide a rich source of dietary vitamin C. **SEE:** *illus.*



SCURVY

infantile s. A form of scurvy that sometimes follows the prolonged use of condensed milk, sterilized milk, or proprietary foods that do not contain supplementary vitamin C.

SYMPTOMS: This condition is characterized by anemia, pseudoparalysis, thickening of the bones from subperiosteal hemorrhage, ecchymoses, nonpitting edema, and a tendency toward fractures of the epiphyses. **SYN:** *Barlow's disease.*

rebound s. Ascorbic acid deficiency symptoms caused by discontinuation of megadoses of vitamin C.

scute (sküt) [L. *scutum*, shield] A thin plate or scale.

scutiform (skü'ti-form) [ʹ + *forma*, shape] Shield-shaped.

scutulum (skü'tü-lüm) *pl.* **scutula** [L., a little shield] A lesion of the scalp caused by the fungus *Trichophyton schoenleinii*. The lesion appears as a yellow cup-shaped crust consisting of a dense mass of mycelia and epithelial debris. The cup faces up, and its center is pierced by the hair around which it has developed. **SEE:** *favus.* **scutular** (-lär), *adj.*

scutum (skü'tüm) [L., shield] A plate of bone resembling a shield.

scybalous (sib'ä-lüs) [Gr. *skybalon*, dung] Of the nature of hard fecal matter.

scybalum (sib'ä-lüm) *pl.* **scybala** A hard, rounded fecal mass.

scyphoid (si'foyd) [Gr. *skyphos*, cup, + *eidos*, form, shape] Cup-shaped.

S.D. 1. *skin dose.* 2. *standard deviation.*

SDA 1. *specific dynamic action.* 2. *Abbr. for Latin sacrodextra anterior, the right sacroanterior fetal position.*

SDMS *Society of Diagnostic Medical Sonographers.*

Se Symbol for the element selenium.

S.E. *standard error.*

sea cucumber A cylindrical marine invertebrate of the family Holothuria;

some species have tentacles that contain a mild venom. Contact with the organism may produce dermatitis.

seal 1. To close firmly. 2. A material such as an adhesive or wax used to make an airtight closure.

border s. The edge of a denture that contacts the tissues in order to close the area under the denture to entrance by food, air, or liquids.

posterior palatal s. A seal at the posterior border of a denture.

velopharyngeal s. A seal between the oral and nasopharyngeal cavities.

sealant A substance applied to prevent leakage into or out of an area.

dental s. A resin that bonds to the etched enamel of a tooth and forms a protective coating resistant to chemical or physical breakdown. The sealant is placed in the deep pits and fissures to prevent the accumulation of debris and bacteria in cavity-prone areas. Dental sealants are used in addition to fluorides to prevent caries (cavities). Also called *pit and fissure sealant.*

sealed source radiation Any radioactive material that is enclosed in a liner or case. Sealed source radioisotopes are used in clinical medicine as radioactive implants, e.g., in brachytherapy used to treat cancers of the prostate. Common radioisotopes used in sealed sources include strontium-90, cesium-137, and radium-226.

searcher (sërçh'ër) [ME. *serchen*] An instrument for locating the opening of the ureter previous to inserting a catheter or exploring the sinuses, and esp. for detecting stones in the bladder. **SYN:** *sound.*

seasickness [AS. *sae*, sea, + *seocness*, illness] A form of motion sickness due to the motion of a boat. **SEE:** *motion sickness.*

seasonal affective disorder **ABBR:** SAD. A mood disorder characterized by dysphoria or depression in fall and winter, and, sometimes, relative mania or hypomania in the spring and summer. The disorder is more common in women than men, and in younger persons than older ones. A characteristic of the disorder is its ability to be treated with bright ambient or artificially provided light. Antidepressant medications (e.g., fluoxetine or bupropion) are also helpful. **SYN:** *winter depression.*

PATIENT CARE: Treatment consists of phototherapy: using artificial bright light exposure or light-emitting diodes, esp. during the mornings of the shorter days of the year. Other therapies include antidepressant medications (e.g., bupropion) and psychiatric or psychological counseling (e.g., cognitive behavioral therapy). To increase exposure to natural light, health care professionals should encourage patients to engage in

outdoor daytime activities during fall and winter

seat A structure on which another structure rests or is supported.

basal s. Tissues in the mouth that support a denture.

bath tub s. 1. An assistive technology device that helps people with functional limitations to bathe. 2. A device for bathing infants. Some seats have modified features to help people transfer in and out of tubs, pools, or showers.



Infant drownings have occurred during bathtub seat use.

elevated toilet s. Raised toilet s.

raised toilet s. A device for raising the height of a toilet to facilitate use by persons with limited strength or movement. SYN: *elevated toilet seat*.

rest s. An area on which a denture or restoration rests.

seating system Adapted seating device.

Seattle foot [after the city Seattle, Washington, U.S., where it was developed] An artificial foot designed to absorb the impact of foot-to-floor contact with a dynamic elastic structure.

seatworm (sēt'wōrm) Pinworm.

sebaceous (sē-bā'shūs) [L. *sebaceus*, made of tallow] Containing, or pert. to, sebum, an oily, fatty matter secreted by the sebaceous glands.

sebaceous gland An oil-secreting gland of the skin. The glands are simple or branched alveolar glands, most of which open into hair follicles. They are holocrine glands; their secretion, known as sebum, arises from the disintegration of cells filling the alveoli. Some aberrant glands are found in the cheeks or lips of the oral cavity, well separated from hair follicles. SEE: *Fordyce's disease*.

sebiparous (sē-bīp'ā-rūs) [" + *parere*, to produce] Producing sebum or sebaceous matter.

sebo- Combining form meaning *fat, tallow*.

sebopsoriasis (sēb'ō-sō-rī'-ā-sīs) [" + "] A red, scaly rash on the face and scalp having characteristics that resemble both seborrheic dermatitis and psoriasis.

seborrhea (sēb-or-ē'ā) [" + Gr. *rhoia*, flow] A disease of the sebaceous glands marked by an increase in the amount, and often an alteration of the quality, of the fats secreted by the sebaceous glands.

TREATMENT: Mild dandruff, a type of seborrhea, may be treated with a shampoo containing selenium sulfide or sulfur. Severe seborrhea is treated with a lotion or cream containing corticosteroids, rubbed into the affected areas two or three times a day.

s. capitis Seborrhea of the scalp.

s. corporis Dermatitis seborrheica.

s. faciei Seborrhea of the face.

s. furfuracea Dermatitis seborrheica.

s. nigricans Seborrhea with pigmented crusts.

s. oleosa Skin that appears shiny or oily.

s. sicca Dandruff.

seborrheic (sēb'ō-rē'ik) [L. *sebum*, tallow, + Gr. *rhoia*, flow] Afflicted with or like seborrhea.

seborrheid (sēb'ō-rē'id) [" + Gr. *rhoia*, flow] Dermatitis seborrheica.

sebum (sē'būm) [L., tallow] A fatty secretion of the sebaceous glands of the skin. It varies in different parts of the body. Sebum from the ears is called *cerumen*; that from the foreskin is called *smegma*.

s. palpebrale Lema.

Seckel syndrome (sēk'əl) [H. P. G. Seckel, German Pediatrician, 1900–1960] A rare autosomal recessive developmental disorder characterized by intrauterine growth retardation, dwarfism, facial, skeletal and dental anomalies, and developmental and neurological deficits.

seclusion of pupil Annular synechia.

secodont (sē'kō-dōnt) [L. *secare*, to cut, + Gr. *odous*, tooth] Having molar teeth with cutting edges on the cusps.

secondary (sēk'ōn-dār'ē) 1. Next to or following; second in order. 2. Produced by a primary cause.

secondary antiphospholipid antibody syndrome ABBR: SAPS. Antiphospholipid antibody syndrome occurring in patients with systemic lupus erythematosus or other rheumatologic syndromes.

secondary nursing care Nursing care aimed at early recognition and treatment of disease. It includes general nursing intervention and teaching of early signs of disease conditions so that prompt medical care can be obtained. SEE: *preventive nursing*.

second cranial nerve The nerve carrying impulses for the sense of sight. It originates in the lateral geniculate body of the thalamus and travels by the optic tract and optic chiasma, where it enters the retina through the optic disk. SYN: *optic nerve*. SEE: *cranial nerve*.

secondhand smoking Passive smoking.

second opinion An independent professional review and assessment of a patient done to confirm, add to, or revise the diagnoses and proposed treatments of another medical professional.

secreta (sē-krē'tā) [L.] The products of secretion.

secretagogue (sē-krē'tā-gōg) [L. *secretum*, secretion, + Gr. *agogos*, leading] 1. That which stimulates secreting organs. 2. An agent that causes secretion. SYN: *secretogogue*.

secrete (sē-krēt') [L. *secretio*, separa-

tion] **1.** To separate from the blood, a living organism, or a gland. **2.** More specifically, to form a secretion.

secretin (sē-krē'tin) A hormone secreted by the duodenal mucosa that stimulates sodium bicarbonate secretion by the pancreas and bile secretion by the liver. It decreases gastrointestinal peristalsis and motility. SEE: *motilin*.

secretinase (sē-krē'tī-nās) An enzyme in blood that inactivates secretin.

secretin injection test Cholecystokinin-secretin test.

secretion (sē-krē'shūn) [L. *secretio*, separation] **1.** The making and release of substances by glands. **2.** The substance produced by glandular organs.

apocrine s. A secretion in which the apical end of a secreting cell is broken off and its contents extruded, as in the mammary gland.

constitutive s. Secretion of substances (typically proteins) from cells, either continuously or independently of cell-to-cell signaling.

eccrine s. Secretion of sweat from glands located in the skin, an important means of regulating temperature.

holocrine s. A secretion in which the entire cell and its contents are extruded as a part of the secretory product, as in sebaceous glands.

merocrine s. A secretion in which the product is elaborated within cells and discharged through the cell membrane, the cell itself remaining intact.

regulated s. The secretion of substances stored in intracellular vesicles after a cell receives a specific stimulus, either from a circulating hormone or from a nerve.

secretagogue (sē-krē'tō-gōg) [L. *secretio*, separation, + Gr. *agogos*, leading] Secretagogue.

secretoinhibitory (sē-krē'tō-īn-hīb'ī-tō'rē) Inhibiting secretion.

secretomotor (sē-krē'tō-mō'tor) Something, esp. a nerve, that stimulates secretion.

secretor (sē-krē'tor) [L. *secretio*, separation] A person who secretes ABO blood group antigens into mucous secretions such as saliva, gastric juice, or semen. The secretion of such substances is sometimes used for the legal identification of individuals in violent crimes (e.g., rape).

secretory (sē-krē'tō-rē, sē'krē-tō'rē) Pert. to or promoting secretion; secreting.

secretory fiber A peripheral motor nerve fiber that innervates glands and stimulates secretion.

sectile (sēk'til) [L. *sectilis*] Capable of being cut.

sectio (sēk'shē-ō) [L., a cutting] Section or cut.

section [L. *sectio*, a cutting] **1.** Process of cutting. **2.** A division or segment of a

part. SEE: *plane* for illus. **3.** A surface made by cutting. **4.** In radiology, a slice. SEE: *slice*.

abdominal s. Laparotomy.

cesarean s. SEE: *cesarean section*.

coronal s. Frontal s.

cross s. A section perpendicular to the long axis of an organ.

frontal s. A section dividing the body into two parts, dorsal and ventral. SYN: *coronal section*.

frozen s. A thin piece of surgically obtained tissue frozen to permit rapid examination of the specimen under the microscope by a pathologist. The specimen is usually obtained intraoperatively, while the patient is still anesthetized. The surgeon's further action (e.g., to operate, to obtain clear margins, or to close the incision) is influenced by the findings.

ground s. A section of bone or tooth prepared for histological study by polishing until thin enough for microscope viewing.

longitudinal s. A section parallel to the long axis of an organ.

midsagittal s. A section that divides the body into right and left halves.

paraffin s. A section of a tissue that has been infiltrated with paraffin.

perineal s. An external incision into the urethra to relieve stricture.

sagittal s. A section cut parallel to the median plane of the body.

serial s. One of the microscopic sections made and arranged in consecutive order.

vaginal s. Incision into the abdominal cavity through the vagina.

sectioning [L. *sectio*, a cutting] The slicing of thin sections of tissue for examination under the microscope. SEE: *microtome*.

ultrathin s. The cutting of sections extraordinarily thin (less than 1 μm thick), esp. for use in electron microscopy.

Section 504 of the Rehabilitation Act of 1973 A U.S. federal statute that prohibits discrimination against or denial of benefits to an individual on the basis of disability by any agency, business, or organization that receives federal support.

Section 508 of the Rehabilitation Act of 1973 A U.S. federal statute that makes it unlawful for a federal agency to deny a person access to electronic or information technology on the basis of disability.

sector (sēk'tor) [L., cutter] **1.** The area of a circle included between two radii and an arc. **2.** The physical location for a specific activity designated in the incident management system.

rehab s. The location at a multiple-casualty incident, fire, or hazardous materials incident where rescue personnel are sent to be medically monitored, re-

hydrated, cooled off, or warmed, as the situation warrants.

staging s. A location within a minute or two's response to the scene of a multiple-casualty incident, hazmat incident, or major fire where emergency vehicles and personnel are assigned to wait till they are needed at the location.

transport s. At a multiple-casualty incident, the place where ambulances or helicopters, or both, are brought in to transport patients to hospitals. At the transport sector, decisions are made regarding where to send patients with specialized problems, and the status of triaged patients is discussed with receiving facilities.

treatment s. The location at a multiple-casualty incident where patients' needs are prioritized and their injuries or illnesses are initially managed before they are taken to a hospital.

triage s. In a multiple-casualty incident, the place where patients are sorted and separated according to the acuity of their illnesses or injuries before they are transported to a treatment sector or hospital.

sectorial (sĕk-tō'rĕ-ăl) Having cutting edges, as teeth.

secundigravida (sĕ-kŭn"đĭ-grāv'ĭd-ă) [L. *secundus*, second, + *gravida*, pregnant] A woman in her second pregnancy.

secundines (sĕk'ŭn-dĭnz, sĭ-kŭn'dĭnz) [LL. *secundinae*] Afterbirth; the placenta and its membranes.

secundipara (sĕ"kŭn-dĭp'ă-ră) [L. *secundus*, second, + *parere*, to bring forth, to bear] A woman who has produced two infants at separate times that have weighed 500 g or more, regardless of their viability. SEE: *gravida*; *para*.

secundiparity (sĕ-kŭn'dĭ-păr'ĭ-tĕ) The condition of being a secundipara.

secure 1. Free from danger, fear, care, or worry. 2. Under lock and key. 3. Stable; protected.

S.E.D. *skin erythema dose.*

sedation (sĕ-dă'shŭn) [L. *sedatio*, from *sedare*, to calm] 1. The process of allaying nervous excitement. 2. The state of being calmed.

conscious s. A minimally depressed level of consciousness during which the patient retains the ability to maintain a patent airway and respond appropriately to physical or verbal commands. This is accomplished by the use of appropriate analgesics and sedatives. This type of sedation is used for a variety of procedures, including changing of wound or burn dressings and endoscopic examinations.

complications that require airway management, intubation, and resuscitation. Drugs to reverse the effects of opioids (such as naloxone) and benzodiazepines (such as flumazenil) are used to awaken sedated patients.

deep s. A depressed level of consciousness produced by medications that suppress anxiety, awareness, memory, or pain, in which a patient may not be able to protect his own airway, arouse easily, or respond purposefully to verbal commands or physical stimulation.

moderate s. A medically controlled depressed state of consciousness in which patients can maintain an open airway and protective airway reflexes; respond appropriately when stimulated physically or verbally; and spontaneously maintain a stable heart rate and blood pressure.

palliative s. SEE: *palliative sedation.*

sedation vacation A colloquial term for an interruption of the infusion of sedatives in a mechanically ventilated patient. Decreasing the depth of a critically ill patient's sedation facilitates weaning from mechanical ventilation.

sedative (sĕd'ă-tĭv) [L. *sedativus*, calming] 1. Quieting. 2. An agent that exerts a soothing or tranquilizing effect. Sedatives may be general, local, or vascular.

sedentary (sĕd'ĕn-tă-rĕ) [L. *sedentarius*] 1. Sitting. 2. Pert. to an occupation or mode of living requiring minimal physical exercise.

s. lifestyle A lifestyle involving little exercise, even of the least strenuous type. Sedentary living is associated with weight gain, obesity, type 2 diabetes mellitus, and, in many studies, an increased risk of coronary artery disease. SEE: *physical fitness*; *risk factor*.

sediment (sĕd'ĭ-mĕnt) [L. *sedimentum*, a settling] The substance settling at the bottom of a liquid. SEE: *precipitate*.

urinary s. Substances present in urine (i.e., bacteria, mucus, phosphates, uric acid, calcium oxalate, calcium carbonate, calcium phosphate, magnesium and ammonium phosphate; and more rarely, cystine, tyrosine, xanthine, hippuric acid, hematoïdin) that separate and accumulate at the bottom of a container of urine. This process may be accelerated by centrifuging the urine specimen.

sedimentation (sĕd'ĭ-mĕn-tă'shŭn) Formation or depositing of sediment. SEE: *sedimentation rate*.

seed (sĕd) [AS. *saed*] 1. The ripened ovule of a spermatophyte plant usually consisting of the embryo (germ) and a supply of nutrient material enclosed within the seed coat. It is a resting sporophyte. 2. Semen. 3. Capsule contain-



Conscious sedation must be closely monitored to prevent loss of protective airway reflexes. The health care team must be ready to recognize and respond to

ing radon or radium for use in the treatment of cancer. **4.** To introduce microorganisms into a culture medium.

seeker, bone An ion or compound that localizes preferentially in bone (e.g., strontium).

segment (sĕg'mĕnt) [L. *segmentum*, a portion] **1.** A part or section, esp. a natural one, of an organ or body. **2.** One of the serial divisions of an animal.

bronchopulmonary s. A small subdivision of the lobes of the lung.

PR s. The line on an electrocardiogram that begins with the end of the P wave and ends with the beginning of the QRS.

S-T s. The line on an electrocardiogram that begins with the end of the QRS complex and ends at the beginning of the T wave. The height of the ST segment is normally equal to that of the PR interval and the TP interval. ST segment elevation is found in patients with acute myocardial infarction and other conditions. ST segment depression is an indicator of coronary ischemia.

uterine s. One of the two functional divisions of the uterine musculature during labor. During labor the upper uterine segment forcibly contracts, becoming progressively shorter and thicker, exerting traction on the more passive lower segment, and increasing the hydrostatic pressure against the cervix. The combination of forces and traction gradually cause the lower segment to thin, resulting in cervical effacement and dilation. SEE: *physiologic retraction ring*.

segmental static reaction A postural reflex in which the movement of one extremity results in a movement in an opposite extremity.

segmentation (sĕg'mĕn-tā'shŭn) Cleavage.

segmenter (sĕg'mĕnt'ĕr) A stage in the development of malarial parasites (genus *Plasmodium*) in which the organism undergoes schizogony.

segregation [L. *segregare*, to separate] **1.** Setting apart, separating. **2.** In genetics, the process that takes place in the formation of germ cells (gametogenesis) in which each gamete (egg or sperm) receives only one of each pair of genes.

segregator An instrument composed of two urethral catheters for securing urine from each kidney separately.

SeHCAT ⁷⁵Selenium-labeled artificial bile salt; homologue to taurocholate.

seismesthesia (sīz'mĕs-the'zĕ-ă) [Gr. *seismos*, a shaking, + *aisthesis*, sensation] The perception of vibrations.

seizure (sĕ'zhŭr) [O.Fr. *seisir*, to take possession of] **1.** A convulsion or other clinically detectable event caused by a sudden discharge of electrical activity in the brain. **2.** A sudden attack of pain, disease, or specific symptoms.

absence s. Seizure in which there is a sudden, brief lapse of consciousness, usually for about 2 to 10 sec. The patient (typically a child) shows a blank facial expression that may be accompanied by movements such as repeated eye-blinking or rolling or lip-smacking and minor myoclonus of the upper extremities or neck. There is no convulsion or fall. The patient resumes activity as if the seizure had not occurred. The seizure may be induced by voluntary hyperventilation for 2 to 3 min. This type of attack is characteristic of petit mal epilepsy and may recur repeatedly if it is not recognized and treated. It also may progress to a generalized tonic-clonic seizure.

PATIENT CARE: The time, duration, patient's expression, and any repetitive movements occurring during the seizure are observed and documented, as is the patient's postseizure response. Prescribed medications are administered and evaluated for desired effects and adverse reactions. Support, reassurance, and education regarding the condition as well as drug actions and side effects are provided to the patient and family, and they are encouraged to discuss their feelings and concerns and to ask questions. SEE: *epilepsy*.

convulsive s. **1.** A convulsion. **2.** An attack of epilepsy. SEE: *epilepsy*.

grand mal s. SEE: under *epilepsy*.

jacksonian s. SEE: *jacksonian epilepsy*.

petit mal s. SEE: *epilepsy*.

Seldinger technique (sĕl'dīng-ĕr) [Sven I. Seldinger, Swedish physician, 1921–1998] A method of percutaneous introduction of a catheter into a vessel. The vessel is located and a needle is inserted. Once a good blood flow is obtained, a wire is threaded through the needle well into the vessel; the needle is then removed and the catheter threaded over the wire into the vessel. The wire assists in inserting the catheter and guiding it into the appropriate vessel. Once the catheter is positioned in the desired intravascular area, the wire is removed. Sterile technique is imperative.

selectins Any of a group of cell surface molecules that influence the attachment and movement of white blood cells to other cells and to the lining of blood vessels, e.g., in inflammatory diseases and conditions.

P-s. An adhesion receptor molecule for white blood cells that functions during inflammation and tissue repair. Binding with P-selectin glycoprotein ligand 1, it controls the flow of white blood cells and their adhesion to blood vessel walls. It is viewed as a key factor in thrombosis.

selection [L. *selectio*, choice] **1.** The pro-

cess of choosing or selecting; choice. **2.** In biology, the factors that determine the reproductive ability of a certain genotype.

artificial s. A process by which humans select desirable characteristics in animals and breed them for these phenotypes.

clonal s. **1.** The process by which T lymphocytes with receptors that react to self-antigens are destroyed in the thymus. **2.** The increase of particular B or T lymphocyte clones after recognition of a specific antigen to which the body has been exposed. SEE: *negative s.*; *clone*.

natural s. Natural selection.

negative s. The process by which immature T lymphocytes (thymocytes) with receptors for self-antigens are destroyed in the thymus. It is part of the mechanism that prevents autoimmune diseases. SEE: *autoimmunity*.

sexual s. **1.** The choice of the gender of an offspring through methods that increase the likelihood of conceiving either a girl or a boy. **2.** A theory originated to account for differences in secondary sex characteristics between male and female animals (including humans). It assumes that individuals preferentially mate with individuals of the opposite sex that possess identifiably distinct phenotypes.

selection pressure Any change in the environment that encourages particular mutations to succeed. For example, antibiotic use kills susceptible bacteria and allows microorganisms with resistant genes to survive and proliferate.

selective decontamination of the digestive tract The administration of non-absorbable antibiotics to reduce the burden of potentially infectious bacteria in the gastrointestinal tract.

It may be used to decrease the incidence of ventilator-associated pneumonia or to rid the gastrointestinal tract of bacteria before surgery.

selective estrogen receptor modulator Estrogen analog.

selective serotonin reuptake inhibitor



ABBR: SSRI. Any one of a class of drugs that interferes with serotonin transport, used in treating depression, obsessive-compulsive behaviors, eating disorders, and social phobias. Examples include fluoxetine (Prozac) and paroxetine (Paxil).



The use of SSRIs in the treatment of depression may sometimes be associated with an increased risk of suicide, especially during the initiation of treatment. The risk is greatest in the treatment of children and adolescents. All patients who begin treatment with SSRIs (including fluoxetine, paroxetine, sertraline, among others) should be monitored

closely for evidence that they intend to harm themselves.

selenium (sē-lē'nē-ŭm) [Gr. *selene*, moon] SYMB: Se. A chemical element resembling sulfur; atomic weight 78.96; atomic number 34. It is considered an essential trace element in the diet. Toxicity can occur when an excessive amount is ingested, characterized by a sour breath odor, nausea, vomiting, abdominal pain, restlessness, hypersalivation, and muscle spasms.

selenoid cell Achromocyte. SYN: *crenate body*.

selenomethionine Se 75 injection (sēl' ēn-ō-mē-thī'ō-nēn) Radioactive L-selenomethionine in which the sulfur atom in the methionine has been replaced by selenium. The compound is used intravenously to investigate methionine metabolism.

self **1.** In psychology, the sum of mind and body that constitutes the identity of a person. **2.** In immunology, an individual's antigenic makeup.

self-acceptance Being realistic about oneself and at the same time comfortable with that personal assessment.

self-care **1.** A concept in Dorothea Orem's Self-Care Framework and her Theory of Self-Care referring to actions that individuals initiate and perform on their own behalf in maintaining life, health, and well-being. **2.** In rehabilitation, the subset of activities of daily living that includes eating, dressing, grooming, bathing, and toileting. SYN: *personal care*.

s.-c. deficit Impaired ability to perform or complete feeding, bathing/hygiene, dressing and grooming, or toileting activities for oneself [on a temporary, permanent, or progressing basis] (Specify level of independence using a standardized functional scale). SEE: *health maintenance, altered*; *home maintenance management, impaired*; *Nursing Diagnoses Appendix*.

self-care, readiness for enhanced A pattern of performing activities for oneself that helps to meet health-related goals and can be strengthened. SEE: *Nursing Diagnoses Appendix*.

Self-Care Framework A conceptual model of nursing, also known as the Self-Care Deficit Theory of Nursing and the Self-Care Deficit Nursing Theory, developed by Dorothea Orem. The person is a self-care agent who has a therapeutic self-care demand made up of universal, developmental, and health deviation self-care requisites. The goal of nursing is to help people to meet their therapeutic self-care demands. SEE: *Nursing Theory Appendix*.

self-concept An individual's perception of self in relation to others and the environment. SEE: *self-esteem*.

self-concept, readiness for enhanced A pattern of perceptions or ideas about the self that is sufficient for well-being and can be strengthened. SEE: *Nursing Diagnoses Appendix*.

self-conscious Being aware of oneself, esp. overly aware of appearance and actions, and thus being ill at ease.

self-contained breathing apparatus ABBR: SCBA. A device that provides respiratory gases. It is used, for example, by rescue personnel, when they enter hazardous breathing environments.

self-contained underwater breathing apparatus ABBR: scuba. A device used by swimmers and divers that enables them to breathe underwater. The mask worn is watertight and is connected to a tank of compressed air. SEE: *bends*.

self-determination theory A theory of human motivation and personality that purports to understand and explain human choices in social contexts, as influenced by that person's beliefs, needs, and desire to influence or be affected by his or her environment.

self-differentiation The differentiation of a structure or tissue due to intrinsic factors.

self-digestion Autodigestion.

self-efficacy An aspect of self-perception postulated by Albert Bandura that pertains to one's belief in his or her ability to perform a given task or behavior.

self-esteem One's personal evaluation or view of self, generally thought to influence feelings and behaviors. One's personal successes, expectations, and appraisals of the views others hold toward oneself are thought to influence this personal appraisal. SYN: *self-concept*.

chronic low s.-e. Long-standing negative feelings about self or capabilities. SEE: *situational low s.-e.*; *Nursing Diagnoses Appendix*.

situational low s.-e. Episodic feelings about self or capabilities that develop in response to a loss or change. SEE: *chronic low s.-e.*; *Nursing Diagnoses Appendix*.

self-examination Inspection and palpation of a body part by the patient to screen for disease. SEE: *breast self-examination*; *testicle, self-examination of*.

self-governance 1. Self-rule; local responsibility for administration and functions of an organization, even though it is part of a larger entity. 2. A model of health care management in which the power base for decisions of patient care is decentralized. The responsibility and accountability for patient care rest directly with all levels of care providers through self-direction, self-regulation, and self-management. Advisory committees reflecting a cross section of caregivers (new graduates, experienced professionals, faculty, and managers) maintain final decision-mak-

ing authority within the work setting. SEE: *shared governance*.

self-help (sĕlf'hĕlp") Action taken by a person to improve his or her life educationally, emotionally, financially, interpersonally, or socially.

self-hypnosis Hypnotizing oneself.

self-insured Having personal financial responsibility for health care costs, as a result of dedicated savings or investments.

self-limited disease A disease that eventually goes away even if untreated.

self-management Active participation by a patient in his or her own health care decisions and interventions. With the education and guidance of professional caregivers, the patient promotes his or her own optimal health or recovery.

self-medication The use of mood-altering substances, such as alcohol or opiates, in an attempt to alleviate depression, anxiety, or other psychiatric disorders.

self-mutilation, risk for A state in which an individual is at high risk to perform a deliberate act upon the self with the intent to injure, not kill, which produces immediate tissue damage to the body. SEE: *Nursing Diagnoses Appendix*.

self-pity A mental defense mechanism involving self-blame, negativism, feelings of rejection, worthlessness, hopelessness, or isolation.

self-ranging Patient-administered passive or active assistive range-of-motion exercise. Patients can be taught to prevent contractures and facilitate movement by using their unaffected extremities and by means of specific techniques. Care should be taken to prevent injury, esp. at the shoulder.

self-soothing A deliberate effort to calm oneself. It is an alternative to the use of medications, alcohol, or drugs for managing anxiety and stress, eating disorders, or insomnia.

self-tolerance In immunology, the absence of an immune response to one's own antigens. SEE: *autoimmunity*.

sella turcica (sĕl'ă tŭr'sī-kă) [NL, Turkish saddle] A concavity on the superior surface of the body of the sphenoid bone that houses the pituitary gland.

Sellick's maneuver (sĕl'īks) [Brian A. Sellick, contemporary Brit. anesthetist] The application of digital pressure to the cricoid cartilage in the neck in an unconscious patient to reduce gastric distention and passive regurgitation during positive pressure ventilation, and to improve visualization of the glottic opening during endotracheal intubation.

semantic-pragmatic language disorder A childhood language disorder in which speech is fluent and complex but inappropriate to the meaning or context of a conversation.

semantics (sē-măn'tiks) [Gr. *semantikos*, significant] The study of the meanings of words.

semen (sē'měn) *pl.* **semina** [L., seed] A thick, opalescent, viscid secretion discharged from the urethra of the male at the climax of sexual excitement (orgasm). Semen is the mixed product of various glands (prostate and bulbourethral) plus the spermatozoa, which, having been produced in the testicles, are stored in the seminal vesicles.

Normal values for the seminal fluid ejaculate are as follows: volume, 2 to 5 ml; pH, 7.8 to 8.0; leukocytes, absent or only an occasional one seen per high-power field; sperm count, 60 to 150 million/ml; motility, 80% or more should be motile; morphology, 80% to 90% should be normal.

frozen s. Semen stored in a bank for future use in insemination. It offers a supply of donors in small communities where it would be impossible to maintain anonymity of local donors. However, in artificial insemination the number of successful pregnancies is lower with frozen semen than with fresh.

semenarche (sē'měn-ăr'kē) [*+* *arche*, beginning] During puberty, the beginning of the production of semen. SEE: *pubarche*; *thelarche*.

semenuria (sē'měn-ū'rē-ă) [L. *semen*, seed, + Gr. *ouron*, urine] Spermaturia.

semi- Prefix meaning *half*.

semicircular (sēm'ē-sūr'kū-lăr) [*+* *circulus*, a ring] In the form of a half circle.

semiconscious (sēm'ē-kōn'shūs) Not fully conscious.

-semide (sē'mīd") [Fm. (*furo*)*semide*] A suffix used in pharmacology to designate any loop diuretic similar in chemical structure to that of furosemide.

semierrection (sēm'ē-ēr-ēk'shūn) [*+* *erigere*, to erect] An incomplete erection.

semiflexion (sēm'ē-flēk'shūn) [*+* *flexio*, bending] Halfway between flexion and extension of a limb.

semilunar (sēm'ē-lū'năr) [L. *semis*, half, + *luna*, moon] Shaped like a crescent.

semilunar cusp One of the leaflets of the aortic valve between the left ventricle and the aorta or of the pulmonary valve between the right ventricle and the pulmonary artery.

semimembranous (sēm'ē-mēm'bră-nūs) [*+* L. *membrana*, membrane] Composed partly of a membrane.

seminal (sēm'ī-năl) [L. *seminalis*] Concerning the semen or seed.

seminal emission Discharge of semen.

semination (sēm-i-nă'shūn) [L. *seminatio*, a begetting] Insemination.

artificial s. Artificial insemination.

semiferous (sēm-in-if'ēr-ūs) [L. *semen*, seed, + *ferre*, to produce] Pro-

ducing or conducting semen, as the tubules of the testes.

seminoma (sēm'ī-nō'mă) [*+* Gr. *oma*, tumor] A cancer arising from male germ cells (in the testis) that makes up about half of all testicular malignancies.

TREATMENT: Seminomas that are confined to the testes are surgically removed. Metastatic disease is treated with surgery (to remove the testis) and radiation and chemotherapy.

semiose (sēm'ī-nōs) Mannose.

seminuria, semenuria (sē'mīn-ū'rē-ă) [L. *semen*, seed, + Gr. *ouron*, urine] Spermaturia.

semiotics (sēm'mē-ōt'iks) **1.** The study of signs and symbols in language. **2.** The study of signs and sign-systems that convey particular meanings in language and culture. This can include gestures, symbols, objects, mannerisms, clothing, and other means for conveying meaning.

semipermeable (sēm'ē-per'mē-ă-bl) [*+* *per*, through, + *meare*, to pass] Characteristic of cell membranes that permit the passage of some materials but not others; also called selectively permeable.

semipronation (sēm'ē-prō-nă'shūn) [*+* *pronus*, prone] **1.** A semiprone position. **2.** The act of assuming a semiprone position.

semiprone (sēm-ē-prōn') [*+* *pronus*, prone] In a position on left side and chest, with both thighs flexed on abdomen, the right higher than the left, and left arm back. SYN: *Sims' position*.

semirecumbent (sēm'ē-rē-kūm'bēnt) [*+* *recumbere*, to lie down] Reclining, but not fully recumbent.

semis (sē'mīs) [L.] ABBR: ss. Half.

semispinalis (sēm'ē-spī-năl'is) [L.] The deep layer of muscle of the back on either side of the spinal column. It is divided into the following three parts: the semispinalis capitis, semispinalis cervicis, and semispinalis thoracis.

semisupination (sēm'ē-sū-pīn-ă'shūn) [*+* *supinus*, lying on the back] A position halfway between supination and pronation.

semisupine (sēm'ē-sū-pīn) [*+* *supinus*, lying on the back] Not completely supine.

semisynthetic (sēm'ē-sīn-thēt'ik) [*+* Gr. *synthetikos*, synthetic] The chemical alteration of a portion of a natural substance.

semitendinosus (sēm'ē-tēn'dīn-ō'sūs) [L.] The fusiform muscle of the posterior and inner part of the thigh.

semitendinous (sēm'ē-tēn'dī-nūs) [L. *semis*, half, + *tendinosus*, tendinous] Of some muscles, partially tendinous.

Simmelweiss, Ignaz Philipp (zēm'ēl-vīs") Hungarian physician, 1818–1865, the discoverer of the mode of transmission of childbed fever (puerperal sepsis)

in the 19th century. Semmelweis is a seminal figure in the history of infection control.

senega root The dried root of the North American perennial herb, *Polygala senega*, traditionally used to treat asthma, bronchial infection, and pneumonia.

senescence (sē-nēs'ēns) [L. *senescens*, growing old] **1.** The process of growing old. **2.** The period of old age.

replicative s. Hayflick's limit.

Sengstaken-Blakemore tube (sēngz'tā-kēn-blāk'mor) [Robert W. Sengstaken, U.S. neurosurgeon, b. 1923; Arthur H. Blakemore, U.S. surgeon, 1897–1970] A three-lumen tube used in the past to treat bleeding esophageal varices by directly compressing the bleeding vessels.

senile (sē'nīl, sē'nīl) [L. *senilis*, old] Pert. to the debility sometimes associated with aging.

senility (sē-nīl'ī-tē) [L. *senilis*, old] Mental or physical weakness that may be associated with old age. Many specialists in aging find the term offensive.

premature s. Onset of senile characteristics before old age (e.g., in Down syndrome).

senior center A community building or meeting room where elderly persons congregate for services and activities that reflect their interests, enhance their dignity, support their independence, and encourage their involvement with the community. There are approx. 15,000 centers across the U.S.A., serving close to 10 million older adults annually. Most are supported by government and local nonprofit organizations. Since 1965, the Older Americans Act has provided some funding support to over 6000 senior centers through service contracts for program activities.

senior friendly Easy for senior citizens to use, e.g., certain forms of medication packaging.

senium (sē'nē-ūm) [L.] Old age, esp. its debility.

senna (sēn'ā) [Arabic *sana*] The dried leaves of the plants *Cassia acutifolia* and *C. angustifolia*; used as a cathartic.

Sennetsu fever (sēn-ēt-soo) [Sennetsu, Japan, where the disease was first observed] A form of ehrlichiosis first identified in Japan, transmitted to humans by tick bite or, possibly, consumption of infected raw fish, and caused by *Ehrlichia sennetsu*. Symptoms include fever, malaise, backache, and lymphadenopathy.

sennosides (sēn'ō-sīdz) Anthraquinone glucosides present in senna that are used as cathartics.

senopia (sēn-ō'pē-ā, sē-nō'-) [L. *senilis*, old, + Gr. *ops*, eye] Improvement in near vision of old people. Usually precedes the development of nuclear cataract. SYN: *sight, second*.

sensate (sēn-sāt') Perceived by the senses.

sensate focus An area, such as an erogenous zone, that is particularly sensitive to tactile stimulation.

sensation (sēn-sā'shūn) [L. *sentatio*] An awareness of conditions inside or outside the body resulting from the stimulation of sensory receptors.

cutaneous s. A sensation arising from the receptors of the skin.

delayed s. A sensation not experienced immediately following a stimulus.

gnostic s. One of the more finely developed senses such as touch, tactile discrimination, position sense, and vibration.

internal s. Subjective s.

phantom s. Phantom limb pain.

primary s. A sensation that results from a direct stimulus.

referred s. A sensation that seems to arise from one location in the body, even though it originates in another. SYN: *reflex sensation*.

reflex s. Referred s.

somesthetic s. Vibration sense; proprioception.

subjective s. A sensation that does not result from any external stimulus and is perceptible only by the subject. SYN: *internal sensation*.

tactile s. A sensation produced through the sense of touch.

sense, sensing (sēns) [L. *sensus*, a feeling] **1.** To perceive through a sense organ. **2.** The general faculty by which conditions outside or inside the body are perceived. The most important of the senses are sight, hearing, smell, taste, touch and pressure, temperature, weight, resistance and tension (muscle sense), pain, position, proprioception, visceral and sexual sensations, equilibrium, and hunger and thirst. **3.** Any special faculty of sensation connected with a particular organ. **4.** Normal power of understanding. **5.** The ability of an artificial pacemaker to detect an electrically conducted signal produced by the heart, such as a P wave or QRS complex. **6.** In nucleic acid chemistry, the strand of DNA whose nucleotide order codes for messenger RNA.

color s. The ability to distinguish differences in color; one of the three parts of visual function.

form s. The ability to recognize shapes; one of the three parts of visual function.

kinesthetic s. Motor sense.

muscular s. Motor sense.

posture s. Proprioception.

pressure s. The ability to feel various degrees of pressure on the body surface. SYN: *baresthesia*.

space s. The sense by which people

recognize objects in space, their relationship, and their dimensions.

special s. The senses of sight, touch, hearing, equilibrium, smell, and taste.

static s. The sense that makes it possible to maintain equilibrium.

stereognostic s. The ability to judge the consistency and shape of objects held in the fingers.

temperature s. The ability to detect differences of temperature.

time s. The ability to detect differences in time intervals.

tone s. The ability to distinguish between different tones.

visceral s. The subjective perception of the sensations of the internal organs.

sensibility (sĕn'si-bĭl'ĭ-tĕ) [L. *sensibilitas*] The capacity to receive and respond to stimuli.

deep s. 1. The sensibility existing after an area of the skin is made anesthetic. 2. The sensation by which the position of a limb and estimation of difference in weight and tension are apparent.

sensibilization (sĕn'si-bĭl'ĭ-zā'shŭn) 1. Sensitization. 2. The induction of susceptibility to or irritation by a foreign substance by injecting it or applying it to the body. SYN: *sensitization*.

sensible (sĕn'si-bl) [L. *sensibilis*, capable of being perceived] 1. Capable of being perceived by the senses; perceptible. 2. Having reason. 3. Measurable.

sensitogen (sĕn'si-tĭn'ō-jĕn) [n + Gr. *gennan*, to produce] The collective of antigens that sensitize the body.

sensitive (sĕn'si-tĭv) [L. *sensitivus*, of sensation] 1. Capable of perceiving or feeling a sensation. SYN: *sentient*. 2. Subject to destructive action of a complement. 3. Susceptible to suggestions, as a hypnotic. 4. Abnormally susceptible to a substance, as a drug or foreign protein. SEE: *allergy*.

sensitivity In assessing the value of a diagnostic test, procedure, or clinical observation, the proportion of people who truly have a specific disease and are so identified by the test. SEE: *specificity*, *diagnostic*.

sensitivity test, antimicrobial A laboratory method of determining the susceptibility of bacteria to antibiotics. The specimen obtained is cultured in various liquid dilutions or on solid media containing various concentrations of antimicrobial drugs in disks placed on the surface of the media. The disk-type test is not completely reliable. Also called *culture and sensitivity test*. SEE: *illus*.

sensitivity training A form of group therapy in which individuals are given the opportunity to relate verbally and physically with complete candor and honesty with other members of the group. The goals of therapy are to increase self-awareness, learn constructive ways of



ANTIMICROBIAL SENSITIVITY TEST

Zones of inhibited bacterial growth around antibiotic disks

dealing with conflicts, establish a better sense of inner direction, and relate to persons with feelings of warmth and affection.

sensitization (sĕn'si-tĭ-zā'shŭn) 1. The production by B lymphocytes of specific antibodies and by T lymphocytes of specific cellular reactions to a foreign antigen. When the antigen is encountered again, an immune response occurs. The production of antibodies by B lymphocytes or the activation of T lymphocytes when an allergen is first encountered. When the allergen is encountered again, an abnormal immune response occurs. SEE: *hypersensitivity*. 2. The process of making a person susceptible to a substance by repeated injections of it. SYN: *sensibilization*.

active s. Sensitization produced by injecting an antigen into a susceptible person.

autoerythrocyte s. A syndrome characterized by the spontaneous appearance of painful ecchymoses, usually at the site of a bruise. The areas itch and burn. The condition is commonly associated with headache, nausea, vomiting, and occasionally with intracranial, genitourinary, and gastrointestinal bleeding. With few exceptions, the disorder affects women of middle age. The cause is assumed to be autosensitivity to a component of the red blood cell membrane. There is no specific therapy. SYN: *purpura*; *psychogenic*.

passive s. Sensitization produced in a healthy person by injecting the person with the serum from a sensitized animal or human.

protein s. Sensitization as a result of previous injection of a foreign protein into the body.

sensitized (sĕn'si-tĭzd) Made susceptible, or immunoreactive, to an antigen.

sensitizer (sĕn'si-tĭ'zĕr) [L. *sensitivus*, of sensation] In allergy and dermatology, a substance that makes the susceptible individual react to the same or other irritants.

sensitometer (sĕn'si-tŏm'ĕ-tĕr) A cali-

brated instrument with an optical step wedge and light source that puts a graduated set of densities on a radiographic film; used in quality control monitoring for film processors.

sensitometry (sĕn'sī-tŏm'ĕ-trĕ) In radiography, the use of densities on an exposed and processed film to evaluate, monitor, and maintain processors, intensifying screens, film types, and exposure systems.

sensomobility (sĕn"sō-mō-bīl'ĕ-tĕ) [L. *sensus*, a feeling, + *mobilis*, mobile] Movement in response to a stimulus.

sensor (sĕn'sŏr) **1.** A sense organ. **2.** A device sensitive to electricity, light, heat, pressure, radiation, sound, or other chemical, mechanical, or physical stimuli.

sensorimotor (sĕn"sō-rĕ-mō'tŏr) [L. *sensus*, a feeling, + *motus*, moving] Both sensory and motor.

sensorimascular (sĕn"sō-rĕ-mŭs'kŭ-lăr) [" + *muscularis*, muscular] Muscular activity in response to a sensory stimulus.

sensorineural (sĕn"sō-rĕ-nŭ'răl) [" + *neuralis*, neural] Concerning a sensory nerve.

sensorium (sĕn-sŏr'ĕ-ŭm) *pl.* **sensoriums, sensoria** [L., organ of sensation] **1.** That portion of the brain that functions as a center of sensations. **2.** The sensory apparatus of the body taken as a whole. **3.** Awareness; consciousness. **sensorial** (-sŏ'rĕ-ăl), *adj.*

sensorivasomotor (sĕn"sō-rĕ-văs'ŏ-mō'tŏr) [L. *sensus*, a feeling, + *vas*, vessel, + *motor*, a mover] Vascular changes induced by sensory nerve stimulation.

sensory (sĕn'sŏ-rĕ) [L. *sensorius*] **1.** Conveying impulses from sense organs to the reflex or higher centers. SYN: *afferent*. **2.** Pert. to sensation.

sensory area Any area of the cerebral cortex in which sensations are perceived.

sensory ending A termination of an afferent nerve fiber that upon stimulation gives rise to a sensation. SEE: *receptor, sensory*.

sensory epilepsy Disturbances of sensation without convulsions.

sensory integration Skill and performance required in the development and coordination of sensory input, motor output, and sensory feedback. It includes sensory awareness, visual spatial awareness, body integration, balance, bilateral motor coordination, visuomotor integration, praxis, and other components.

Sensory Integration and Praxis Tests ABBR: SIPT. A standardized battery of assessment tests to identify motor planning and sensory processing deficits in children 4 through 8 years of age. It includes 17 subtests.

sensory memory The momentary storage in the brain of images or sensations just felt, heard, seen, smelled, or tasted. Sensory memories typically last only a few seconds.

sensory overload A condition in which sensory stimuli are received at an excessive rate or intensity. Sensory overload can produce increases in heart rate, breathing, blood pressure, confusion, anxiety, mental distress, and/or erratic behavior.

sensory/perception, disturbed (specify: visual, auditory, kinesthetic, gustatory, tactile, olfactory) Change in the amount or patterning of incoming stimuli accompanied by a diminished, exaggerated, distorted, or impaired response to such stimuli. SEE: *Nursing Diagnostics Appendix*.

sensory registration The brain's ability to receive input and select that which will receive attention and that which will be inhibited from conscious attention.

sensory unit A single sensory neuron with its receptors.

sensual (sĕn'shŭ-ăl) [L. *sensus*, a feeling] Concerning or consisting of the gratification of the senses; indulgence of the appetites; not spiritual or intellectual; carnal, worldly.

sensualism (sĕn'shŭ-ăl-ĭzm) The state of being sensual, in which one's actions are dominated by the emotions.

sensuous (sĕn'shŭ-ŭs) [L. *sensus*, a feeling] **1.** Pert. to or affecting the senses. **2.** Susceptible to influence through the senses.

sentient (sĕn'shĕ-ĕnt) [L. *sentiens*, perceive] Capable of perceiving sensation. SYN: *sensitive*.

sentiment (sĕn'tĭ-mĕnt) [L. *sentio*, to feel] **1.** Feeling, sensibility; any emotional attitude toward objects or subjects. **2.** Tenderness.

sentinel event (sĕn'tĭn-ĭl) [Fm. Italian *sentinella*, fm. L. *sentire*, to observe] Any occurrence in a professional health care setting that causes serious injury or the risk of serious injury to patients. Most sentinel events occur because of unanticipated errors, e.g., neonatal kidnappings, patient suicides, and wrong-site surgeries.

separation **1.** The process of disconnecting, disuniting, or severing. **2.** The purification or isolation of a chemical compound from a mixture or solution. SEE: *centrifuge; electrophoresis; iontophoresis*.

acromioclavicular s. A sprain to the acromioclavicular and coracoclavicular ligaments, commonly caused by a fall or a blow directly to the shoulder (shoulder separation).

immunomagnetic s. The detection and/or harvesting of samples containing specific antigens based on their collec-

tion by antibodies attached to magnetized beads. The bead-bound antigens can be separated from materials that are not of interest in a magnetic field.

separator [LL. *separator*] 1. Anything that prevents two substances from mingling. 2. Any device or instrument used for separating two substances such as cream from milk.

separatorium (sĕp'ā-rā-tō'rĕ-ūm) [L.] An instrument for separating the pericranium from the skull.

sepsis (sĕp'sis) [Gr., putrefaction] A systemic inflammatory response to infection, in which there is fever or hypothermia, tachycardia, tachypnea, and evidence of inadequate blood flow to internal organs. The syndrome is a common cause of death in critically ill patients. Roughly 50% of patients with sepsis die; between 200,000 and 400,000 deaths due to sepsis occur annually in the U.S. Pathogenic organisms, including bacteria, mycobacteria, fungi, protozoa, and viruses, may initiate the cascade of inflammatory reactions that constitute sepsis. The number of patients with sepsis has increased significantly in the last 25 years as a result of several factors including the aging of the population; the increased number of patients living with immune suppressing illnesses (e.g., organ transplants); the increased number of patients living with multiple diseases; and the increased use of invasive or indwelling devices in health care, which serve as portals of entry for infection.

Complications of sepsis may include shock, organ failure (e.g., adult respiratory distress syndrome or acute renal failure), disseminated intravascular coagulation, altered mental status, jaundice, metastatic abscess formation, and multiple organ system failure.

ETIOLOGY: Sepsis results from the combined effect of a virulent infection and a powerful host response to the infection (e.g., the body's release of cytokines or chemokines such as tumor necrosis factor, nitric oxide, interleukins, and others). Infections of the lungs, abdomen, and urinary tract are implicated in sepsis more often than are infections at other body sites.

TREATMENT: The primary objectives are resuscitation of the patient, eradication of the underlying cause of infection, support of failing organ systems, and prevention of complications. Resuscitative efforts include maintaining an open airway; supporting ventilation; providing aggressive fluid support (especially in the first few hours); maintaining tight control of blood sugars (best if glucose levels are between 80 and 110 mg/dl); providing vasopressor drugs for persistent hypotension; and intensive monitoring. Eradicating the

underlying infection involves administering broad-spectrum antibiotics until a precise cause is identified, removing portals of infection or infected prostheses, and draining or debriding abscesses if any are present. Complications in septic patients are prevented with good supportive care: antiembolic stockings or pneumatic dressings and sometimes heparin to lessen the risk of venous thrombosis, skin care to prevent decubitus ulcers, enteral nutrition to prevent starvation, and aseptic technique to limit secondary hospital-acquired infections.

CRITICAL CARE: Invasive hemodynamic monitoring in patients with sepsis typically reveals an elevated cardiac index, decreased systemic vascular resistance, decreased oxygen delivery to tissues, and decreases in mixed venous oxygen saturation. Commonly, laboratory studies in sepsis will reveal leukocytosis (or severe leukopenia), thrombocytopenia, elevated liver enzymes, hypocalcemia, hypoalbuminemia, and increases in the prothrombin time and serum creatinine level.

PATIENT CARE: Specimens of blood and body fluids are collected and cultured. Two or three consecutive blood cultures are obtained while the patient is febrile. Patient symptoms and vital signs are carefully assessed, and lungs are auscultated for normal and adventitious lung sounds. The patient's urine output is monitored for oliguria, and the patient is observed for any change in mental status. The patient's daily fluid intake and output and body weight also are measured and recorded.

At least one large-bore intravenous catheter is placed, and prescribed antibiotic therapy is administered. The patient is given information about the therapy and assessed for desired responses and adverse effects. Antipyretics may be prescribed. Fluid and electrolyte therapy is prescribed to maintain desired balance or correct deficiencies. Oxygen is administered based on SaO_2 readings, tachypnea, and tachycardia. As soon as culture results permit, the patient's antibiotic regimen is revised to use specific drugs to which the offending organism is sensitive. After doses of these drugs are given, serum antibiotic levels (trough and peak) may be monitored to prevent toxicity and ensure effectiveness. The patient is assessed carefully for signs of disseminated intravascular coagulation, adult respiratory distress syndrome, renal failure, heart failure, gastrointestinal ulcers, and hepatic abnormalities, any of which can complicate the clinical picture.

If septic shock occurs, oxygenation and perfusion are vigorously supported. An arterial catheter may be placed to

measure blood pressure and provide access for arterial blood gas (ABG) samples. A pulmonary artery catheter may be used to monitor the patient's hemodynamic status. The health care team monitors closely for fluid overload. Nasoendotracheal intubation and mechanical ventilation may be necessary to overcome hypoxia, and ABGs are evaluated to determine FiO_2 and ventilatory volumes. If shock persists after volume expansion, vasopressor and inotropic therapy may sometimes be prescribed to maintain adequate renal and brain perfusion. During vasopressor administration, central pressures and cardiac rate and rhythm are closely monitored. Metabolic (lactic) acidosis may sometimes be corrected with IV bicarbonate therapy. A gram-negative endotoxin vaccine may be prescribed, as may other experimental treatments to block the rapid inflammatory process (corticosteroids, opiate antagonists, prostaglandin inhibitors, and calcium channel blockers). The patient's response is assessed, noting any adverse reactions.

A quiet and calm milieu is provided for the profoundly ill patient. Psychological support is provided. Oral hygiene is provided to prevent stomatitis, sordes, and salivary obstruction, esp. if the patient is permitted nothing by mouth. Nutritional needs are monitored, with consultations with the nutritional therapist to determine the need for enteral or parenteral nutrition. The patient's skin and joint function needs to be protected by assessing the skin and providing required care, as well as through frequent, careful repositioning, range-of-motion exercises, and correct body alignment, using supportive devices as necessary. The health care team should function as a liaison to family members, offering them emotional support and helping them to understand the patient's illness and the treatment regimen.

puerperals. Any infection of the genital tract that occurs within 6 weeks after childbirth or abortion. Although once the greatest killer of new mothers, the incidence of postpartum infection has dropped dramatically as a result of aseptic technique during and after childbirth and the use of antibiotic therapy and now occurs in only a small percentage of maternity patients. SYN: *childbed fever*. SEE: *Nursing Diagnoses Appendix*.

SIGNS AND SYMPTOMS: Clinical findings vary with the site and type of infection. *Local:* Infections of perineal lacerations, of an episiotomy, or of the abdominal incision for cesarean delivery exhibit the classic signs of wound infections: redness, edema, ecchymosis, discharge, and interrupted approxima-

tion. *Pelvic:* Women whose infections involve the uterus, fallopian tubes, ovaries, or parametrium usually exhibit fever, chills, tachycardia, and abdominal tenderness or pain. Endometritis is accompanied by changes in the character and amount of lochia related to the causative organism; lochia may be scant or profuse, odorless or foul-smelling, colorless or bloody.

ETIOLOGY: The most common causes are group A or B streptococci; coagulase-negative staphylococci, *Clostridium perfringens*, *Bacteroides fragilis*, *Escherichia coli*; and some other gram-negative bacteria. While most of these are a normal part of vaginal flora, they can become pathogenic in the presence of predisposing factors.

RISK FACTORS: Conditions that predispose to postpartum infection include anemia, malnutrition, prolonged and premature rupture of membranes, repeated vaginal examinations during labor, prolonged labor, invasive procedures, surgical interventions (esp. cesarean section), hemorrhage, retained products of conception, and breaks in aseptic technique. Common modes of transmission include upward migration of vaginal bacteria, autoinfection, and contact with infected personnel or contaminated equipment.

DIAGNOSIS: The primary diagnostic criterion is a temperature of 100.4°F (38°C) occurring on any two of the first 10 days after childbirth, exclusive of the first 24 hours. Cultures of any drainage and sensitivity tests identify the causative microbe and the appropriate therapeutic antibiotic.

PATHOLOGY: In minor cases of ulceration, the vaginal tract is covered by a dirty membrane. In streptococcal and staphylococcal infections, the endometrium is smooth and the lymphatics are congested with the invading organisms. As a rule, the uterine cavity is filled with very little lochia. The uterus shows poor involution. If the infection extends farther beyond the uterus, the parametrium or cellular tissues show edema, inflammation, and in some cases purulent infiltration. Extension of the process to the veins produces infectious thrombi, which in turn produce localized abscesses in other parts of the body.

TREATMENT: Treatment includes appropriate antibiotics, incision and drainage if abscess forms, and supportive therapy.

PATIENT CARE: Puerperal infection is prevented by maintaining strict asepsis during the entire labor, delivery, and postpartum period. Hand hygiene is stressed for all care providers. Preventive measures also include good prenatal nutrition; intranatal hemorrhage control; and avoidance of uterine dys-

tocia, prolonged labor (esp. if amniotic fluid is leaking), and traumatic vaginal delivery. Fluid and electrolyte balance is maintained and unusual blood loss replaced.

The health care professional assesses for and reports suspicious clinical findings, and administers prescribed broad-spectrum antibiotics intravenously, changing to specific therapy once cultures have established sensitivity. Analgesics and antiemetics are prescribed and administered as needed. The patient is isolated and separated from the infant while febrile, and other family members are encouraged to nurture the infant. The mother is provided with frequent reassurance about her neonate's status. The patient is given nutritional support, fluid intake and urinary output are measured, and care of the perineum, vaginal secretions, and breasts is provided. Milk is pumped and discarded throughout antibiotic therapy to maintain lactation for the woman who wants to breast feed. If surgery is required, the patient is prepared physically and psychologically for the necessary procedure and the family is given information and emotional support. Postpartum patients should be taught how to maintain good perineal hygiene and keep episiotomy sites clean. Because of early discharge to home and self-care, patients should be advised to report fever that occurs in the week or so following discharge as well as associated chills, headache, malaise and/or restlessness.

sepsis syndrome Septic shock.

septal (sĕp'tāl) Pert. to a septum or a layer of tissue that separates two body chambers.

septan (sĕp'tān) [L. *septem*, seven] Recurring every seventh day.

septate (sĕp'tāt) [L. *saepium*, a partition] Having a dividing wall.

septectomy (sĕp-tĕk'tō-mĕ) [" + Gr. *ektome*, excision] Excision of a septum, esp. the nasal septum or a part of it.

septi- Combining form meaning *seven*.

septic (sĕp'tik) [Gr. *septikos*, putrefying] 1. Pert. to sepsis. 2. Pert. to pathogenic organisms or their toxins.

septicemia (sĕp-tī-sĕ'mĕ-ă) [" + *haima*, blood] The presence of pathogenic microorganisms in the blood. SEE: *sepsis*; *Nursing Diagnoses Appendix*. **septicemic** (-ik), *adj.*

septicemritis (sĕp'tī-mĕ-trī'tis) [Gr. *septos*, putrid, + *metra*, uterus, + *itis*, inflammation] An inflammation of the uterus caused by sepsis.

septipara (sĕp-tīp'ă-ră) [L. *septem*, seven, + *parere*, to bring forth] A woman who has had seven pregnancies, each of which produced an infant, alive or dead, weighing 500 g or more.

septivalent (sĕp-tī-vă'lĕnt, -tīv'ă-lĕnt) [" + *valere*, to be strong] Having a va-

lence of seven or combining with or replacing seven hydrogen atoms.

septonasal (sĕp-tō-nă'zāl) [L. *saepium*, a partition, + *nasus*, nose] Concerning the nasal septum.

septo-optic dysplasia A rare developmental disorder of the brain and eye in which the optic disk and septum pellucidum do not develop normally, resulting in blindness, hormonal deficiencies, learning disabilities, decreased muscular tone, and, occasionally, seizures.

septoplasty (sĕp'tō-plăs'tē) [" + Gr. *plassein*, to form] Plastic surgery of the nasal septum.

septostomy (sĕp-tōs'tō-mĕ) [" + Gr. *stoma*, mouth] Surgical formation of an opening in a septum.

amniotic s. Surgical puncturing of the membrane between twins affected by the twin oligohydramnios-polyhydramnios sequence.

balloon atrial s. The surgical enlargement of an opening between the cardiac atria for palliative relief of congestive heart failure in newborns with certain heart defects. A deflated balloon is inserted into a vein, passed through the foramen ovale, and then inflated and pulled vigorously through the atrial septum to enlarge the opening and improve oxygenation of the blood. SYN: *Rashkind procedure*.

surgical atrial s. The use of a specialized scalpel or knife to separate fused structures within the hearts of infants born with complex congenital cardiac defects.

septotome (sĕp'tō-tōm) [" + Gr. *tome*, incision] An instrument for cutting or removing a section of the nasal septum.

septulum (sĕp'tū-lŭm) *pl.* **septula** [L.] A small partition or septum.

septum (sĕp'tŭm) *pl.* **saepium**, a partition] A wall dividing two cavities. **septal** (-tāl), *adj.*

atrial s. Interatrial s.

atrioventricular s. The septum that separates the right and left atria of the heart from the respective ventricles.

deviated s. A nasal septum displaced to one side. It sometimes causes impaired air flow through a nostril.

interatrial s. The myocardial wall between the atria of the heart.

interdental s. The bony partition across the alveolar process between adjacent teeth that forms part of the tooth sockets.

intermuscular s. 1. A connective tissue septum that separates two muscles, esp. one from which muscles may take their origin. 2. One of two connective tissue septa that separate the muscles of the leg into anterior, posterior, and lateral groups.

interradicular s. One of the thin bony partitions between the roots of a multi-

rooted tooth that forms part of the walls of the tooth socket.

interventricular s. The myocardial wall between the ventricles of the heart.

lingual s. A sheet of connective tissue underlying the midline groove (median sulcus) separating the halves of the tongue.

mediastinal s. A partition between two parts of an organ or cavity.

nasal s. The partition that divides the nasal cavity into two nasal fossae. The bony portion is formed by the perpendicular plate of the ethmoid bone and the vomer. The cartilaginous portion is formed by septal and vomeronasal cartilages and medial crura of greater alar cartilages. Both sides of the septum are covered with mucous membranes.

orbital s. A fibrous sheet extending partially across the anterior opening of the orbit within the eyelids.

s. pellucidum A thin, translucent, triangular sheet of nervous tissue consisting of two laminae attached to the corpus callosum above and the fornix below. It forms the medial wall and interior boundary of the lateral ventricles of the brain.

s. primum In the embryonic heart, a septum between the right and left chambers.

rectovaginal s. The layer of fascia between the rectum and the vagina.

rectovesical s. The membranous septum between the rectum and the urinary bladder.

tracheoesophageal s. In the embryo, the partition that develops between the growing laryngotracheal tube (the future larynx, trachea, and lungs) and the developing esophagus.

ventricular s. Interventricular s.

septuplet (sĕp'tū-plĕt) [L. *septuplus*, sevenfold] One of seven children born from the same gestation.

sequel (sĕ'kwĕl) [L. *sequela*, sequel] Sequela.

sequela (sĕ-kwĕ'lă) *pl. sequelae* [L., sequel] A condition following and resulting from a disease.

sequence (sĕ'kwĕns) [L.] 1. The order or occurrence of a series of related events. 2. The arrangement of nucleotides in a nucleic acid molecule.

pulse s. In magnetic resonance imaging, a series of radio waves designed to produce proton stimulation necessary to create the image. **sequential, adj.**

sequencing (sĕ'kwĕn-sing) [L. *sequor*, to follow] 1. The application of particular treatments in a specific order rather than randomly or haphazardly. 2. The determination of the order of nucleotides in a gene or a genome. SYN: *gene sequencing*; *genetic sequencing*.

sequential Occurring in order (i.e., one after another).

sequential therapy Any treatment regimen in which the patient is given one treatment followed by another (e.g., two distinct but mutually reinforcing combinations of drugs).

sequester (sĕ-kwĕs'tĕr) [L. *sequestrare*, to separate] 1. To isolate. 2. Sequesterum.

sequestration (sĕ'kwĕs-tră'shŭn) [L. *sequestratio*, a separation] 1. The formation of sequesterum. 2. The isolation of a patient for treatment or quarantine. 3. Reduction of hemorrhage of the head or trunk by temporarily stopping the return of blood from the extremities by applying tourniquets to the thighs and arms. 4. Fragment of nucleus pulposus of the intervertebral disk separating and freely floating in the spinal canal.

pulmonary s. A nonfunctioning area of the lung that receives its blood supply from the systemic circulation.

sequestrectomy (sĕ'kwĕs-trĕk'tō-mĕ) [" + Gr. *ektome*, excision] Excision of a necrosed piece of bone. SYN: *sequestrotomy*.

sequestrotomy (sĕ'kwĕs-trōt'ō-mĕ) [" + Gr. *tome*, incision] Operation for removal of a sequesterum, a fragment of necrosed bone. SYN: *sequestrectomy*.

sequesterum (sĕ-kwĕs'trŭm) *pl. sequestra* [L., something set aside] A fragment of a necrosed bone that has become separated from the surrounding tissue. It is designated *primary* if the piece is entirely detached, *secondary* if it is still loosely attached, and *tertiary* if it is partially detached but still remaining in place. SYN: *sequester*. **sequestral** (-ăl), *adj.*

seralbumin (sĕr-ăl-bŭ'mĭn) [L. *serum*, whey, + *albumen*, white of egg] Serum albumin.

serendipity (sĕr'ĕn-dĭp'ĭ-tĕ) The gift of finding, by chance and insight, valuable or agreeable things not sought for. In medical research, an unexpected reaction or result may produce new insights into some area totally unrelated to that which prompted the investigation.

serglycin (sĕr-glĭ'sin) A proteoglycan found within many cells, esp. in the granule-containing vesicles of blood-forming cells and endothelial cells.

serial (sĕ'rĕ-ăl) [L. *series*, row, chain] In numerical order, in continuity, or in sequence, as in a series.

serial sevens test A test of mental status. The patient is asked to subtract 7 from 100 and to take 7 from that value and continue serially.

series (sĕr'ĕz) [L. *series*, row, chain] 1. Arrangement of objects in succession or in order. 2. In electricity, batteries or mode of arranging the parts of a circuit by connecting them successively end to end to form a single path for the current. The parts so arranged are said to be "in series."

acute abdomen s. A radiologic examination that usually includes an erect kidney, ureter, and bladder (KUB) projection, a recumbent KUB projection, and a left lateral decubitus image of the chest. It is used to assess patients with abdominal pain for free air (organ perforation), infection, intestinal obstruction, or stones.

aliphatic s. Chemical compounds with a structure of an open chain of carbon atoms.

aromatic s. Any series of organic compounds containing the benzene ring.

erythrocytic s. The group of immature cells that develop into mature red blood cells.

fatty s. Aliphatic series, esp. those similar to methane.

granulocytic s. The immature cells in the bone marrow that develop into mature granular white blood cells. SYN: *leukocytic series*.

homologous s. In chemistry, compounds that proceed from one to the next by some constant such as a CH₂ group.

leukocytic s. Granulocytic s.

monocytic s. The immature blood cells that grow in the bone marrow and other blood-forming organs into mature monocytes and macrophages.

thrombocytic s. The immature blood cells in the bone marrow that develop into megakaryocytes and ultimately form platelets.

upper GI s. Radiographical and fluoroscopic examinations of the stomach and duodenum after the ingestion of a contrast medium, such as barium sulfate or an iodinated glucose solution.

serine (sēr'ēn) 2-amino-3-hydroxypropionic acid; an amino acid present in many proteins, including casein, vitellin, and others.

serine protease inhibitor ABBR: SERPIN. Any of the compounds that inhibit platelet function and coagulation. SERPINs have been used to reduce deposition of microemboli in cases of disseminated intravascular coagulation associated with sepsis.

sero- [L.] Combining form meaning *serum*.

serocolitis (sēr'ō-kō-lī'tīs) [" + Gr. *kolon*, colon, + *itis*, inflammation] Inflammation of the serous layer of the colon. SYN: *pericolitis*.

seroconversion (sēr'ō-kōn-vēr'zhūn) The development of an antibody response to an infection or vaccine, measurable in the serum.

seroculture (sēr'ō-kūl-chūr) [L. *serum*, whey, + *cultura*, tillage] A bacterial culture on blood serum.

serocystic (sēr'ō-sīs'tīk) [" + Gr. *kystis*, bladder, sac] Composed of cysts containing serous fluid.

serodermatosis (sēr'ō-der-mā-tō'sīs) [" + Gr. *derma*, skin, + *osis*, condition] Skin disease with serous effusion into tissues of the epidermis.

serodiagnosis (sēr'ō-dī-āg-nō'sīs) [" + Gr. *dia*, through, + *gnosis*, knowledge] Diagnosis of disease based on tests of serum, esp. immunological tests.

seroenteritis (sēr'ō-ēn-tēr-ī'tīs) [" + Gr. *enteron*, intestine, + *itis*, inflammation] An inflammation of the serous covering of the intestine.

seroepidemiology (sēr'ō-ēp'ī-dē-mē-ōl'ō-jē) [" + *epi*, upon, + *demōs*, people, + *logos*, word, reason] A study of the epidemiological characteristics of a disease by reviewing blood samples for markers of the disease.

serofast (sēr'ō-fāst") Serum-fast.

serofibrinous (sēr'ō-fī'brīn-ūs) [" + *fibra*, fiber] 1. Composed of both serum and fibrin. 2. Denoting a serofibrinous exudate.

serofibrous (sēr'ō-fī'brūs) [" + *fibra*, fiber] Concerning serous and fibrous surfaces.

seroflocculation (sēr'ō-flōk'ū-lā'shūn) [" + *flocculus*, little tuft] Flocculation produced in serum by an antigen.

seroimmunity (sēr'ō-ī-mū'nī-tē) [" + *immunitas*, immunity] Immunity produced by the administration of an anti-serum.

serologic test (sēr'ā-lōj'īk tēst) Any test done on serum.

serologist (sēr-rōl'ō-jīst) [" + Gr. *logos*, word, reason] An individual trained in the science of serology.

serology (sēr-rōl'ō-jē) [" + Gr. *logos*, word, reason] The scientific study of fluid components of the blood, esp. antigens and antibodies. **serologic, serological** (-rō-lōj'īk, -rō-lōj'īk-āl), *adj.*

serolysin (sēr-rōl'īs-īn) [" + Gr. *lysis*, dissolution] A bactericidal substance or lysin found in serum.

seroma (sēr-ō'mā) [" + "] A mass caused by the accumulation of serum within a tissue or an organ. Seromas may accumulate as a complication of surgery or after other traumatic injuries to soft tissues.

seromembranous (sēr'ō-mēm'brān-ūs) [" + *membrana*, membrane] 1. Both serous and membranous. 2. Relating to a serous membrane.

seromucous (sēr'ō-mū'kūs) [" + *mucus*, mucus] Pert. to a secretion that is part serous and part mucous.

seromuscular (sēr'ō-mūs'kū-lār) [" + *muscularis*, muscular] Concerning the serous and muscular layers of the intestinal wall.

seronegative (sēr'ō-nēg'ā-tīv) Producing a negative reaction to serological tests.

seropositive (sēr'ō-pōz'ī-tīv) Having a positive reaction to a serological test

(i.e., showing the presence of a specific antigen or antibody).

seroprevention (sēr'ō-prē-vēn'shŭn) Seroprophylaxis.

seroprotection (sēr'ō-prō-tēk'shŭn) An antibody response capable of preventing infection, e.g., after a vaccination or a previous infection with a microorganism.

seropurulent (sēr'ō-pŭ'roo-lēnt) [" + *purulentus*, full of pus] Composed of serum and pus, as an exudate.

seroreaction (sēr'ō-rē-āk'shŭn) [" + "] **1.** Any reaction taking place in or involving serum. **2.** A reaction to an injection of serum marked by rash, fever, pain, arthralgia, or arthritis.

seroresistance (sēr'ō-rē-zis'tāns) The failure of serum antibody tests to return to normal after treatment or resolution of an infection.

seroresistant (sēr'ō-rē-zis'tānt) Concerning seroresistance.

serosa (sēr-ō'sā) [L. *serum*, whey] A serous membrane (e.g., the peritoneum, pleura, and pericardium).

serosanguineous (sēr'ō-sān-gwīn'ē-ūs) [L. *serum*, whey, + *sanguineus*, bloody] Containing or of the nature of serum and blood.

seroserous (sēr'ō-sē'rūs) [L. *serosus*, serous, + *serum*, whey] Pert. to two serous surfaces.

serositis (sēr'ō-sī'tis) *pl.* **serositides** [" + Gr. *itis*, inflammation] An inflammation of a serous membrane, such as the pleura, pericardium, or peritoneum. Serositis is one of the cardinal findings in connective tissue diseases like systemic lupus erythematosus.

serosurvey (sēr'ō-sŭr'vā) [" + "] Sampling of blood in a percentage of people living in a community to determine the percentage of those who are resistant or susceptible to a disease, esp. an infectious disease.

serosynovial (sēr'ō-sī-nō'vē-āl) [L. *serum*, whey, + *synovia*, joint fluid] Concerning serous and synovial material.

serosynovitis (sēr'ō-sīn'ō-vī'tis) [" + *synovia*, joint fluid, + Gr. *itis*, inflammation] Synovitis with an increase of synovial fluid.

serotherapy (sēr'ō-thēr'ā-pē) Passive immunization with antivenins. SYN: *serum therapy*.

serotonergic neuron (sēr'ā-tōn'ŭr'jīk) A nerve cell that uses serotonin as its neurotransmitter.

serotonin (sēr'ō-tōn'īn) A chemical, 5-hydroxytryptamine (5-HT), found in platelets, the gastrointestinal mucosa, mast cells, carcinoid tumors, and the central nervous system. Serotonin is a vasoconstrictor, and through its action on cellular receptors, it plays important roles in intestinal motility, nausea and vomiting, sleep-wake cycles, obsessive-

compulsive behaviors, depression, and eating. SEE: *carcinoid syndrome*; *selective serotonin reuptake inhibitor*.

serotonin and norepinephrine reuptake inhibitor ABBR: SNRI. An antidepressant medication (such as duloxetine or venlafaxine) that elevates mood by blocking neurons from taking up both norepinephrine and serotonin. Combined reuptake inhibitors differ from medications such as sertraline (Zoloft) or fluoxetine (Prozac), which are relatively selective serotonin reuptake inhibitors, and from tricyclic antidepressants, which primarily prevent the reuptake of norepinephrine by brain cells. SNRIs treat neuropathic pain as well as depression.

serotonin syndrome The adverse effects of excessive levels of serotonin in the brain, typically caused by exposure to multiple medications that alter the neuronal disposition of serotonin. Common findings are confusion, restlessness, hyper-reflexia, agitation, diaphoresis, tremor, and fever.

serotype (sēr'ō-tīp) In microbiology, a microorganism determined by the kinds and combination of antigens present on its cell surface.

serous (sēr'ūs) [L. *serosus*] **1.** Having the nature of serum. **2.** Thin or watery, rather than syrupy, thick, or viscous.

serovaccination (sēr'ō-vāk'sī-nā'shŭn) An injection combining serum (containing preformed antibodies to provide immediate passive immunity) and components of a vaccine (to stimulate long-term active immunity). It may be used for unimmunized patients after rabies or tetanus exposure and for neonates born of mothers who are hepatitis B carriers.

serovar (sēr'ō-vār') [*serological variation*] Variants within a species defined by variation in serological reactions. SEE: *biovar*; *morphovar*.

Serpent of the Nile A colloquial name for *Dracunculus medinensis*.

serpiginous (sēr-pī'jī-nūs) [L. *serpere*, to creep] Creeping from one part to another.

Serra do Navio virus [sēr'ā dō nah'vē-ō, -oo] [*Serra do Navio*, A region of the Amazonas, Brazil] ABBR: SDNV. A California serogroup virus of the Bunyviridae family. It causes a febrile encephalitis.

serrate (sēr'āt) [L. *serratus*, toothed] Dentate.

Serratia (sēr-ā'shē-ā) [Serafino Serrati, 18th-century Italian physicist] A genus of gram-negative bacilli of the family Enterobacteriaceae. It is a gram-negative rod.

S. liquefaciens A species that has caused septicemia and other hospital-acquired infections.

S. marcescens An opportunistic bac-

terium that causes septicemia and pulmonary disease, esp. in immunocompromised patients, and is found in water, soil, milk, and stools. In the proper environment, the organism will grow on food and produce the red pigment prodigiosin.

serration (sĕr-ā'shŭn) [L. *serratio*, a notching] **1.** A formation with sharp projections like the teeth of a saw. **2.** A single tooth or notch in a serrated edge.

serrefine (sār-fĕn') [Fr.] A small wire-spring forceps for compressing bleeding vessels.

serrulate (sĕr'ū-lāt) [L. *serrulatus*] Finely notched or serrated.

Sertoli cell (sĕr-tō'lĕz) [Enrico Sertoli, Italian histologist, 1842–1910] One of the supporting elongated cells of the seminiferous tubules of the testes to which spermatids attach to be nourished until they become mature spermatozoa. Sertoli cells produce the hormone inhibin. Also called *sustentacular cell*.

sertraline (sĕr'trā-lĕn) A selective serotonin reuptake inhibitor and antidepressant, administered orally to manage depression, panic, obsessive-compulsive disorder, and posttraumatic stress disorder. Trade name is Zoloft.

serum (sĕ'rŭm) *pl.* **serums, sera** [L., whey] **1.** Any serous fluid, esp. the fluid that moistens the surfaces of serous membranes. **2.** The watery portion of the blood after coagulation; a fluid found when clotted blood is left standing long enough for the clot to shrink. **3.** Fluid obtained from blood that contains antibodies against a specific microorganism. It is used to provide immediate passive immunity. SYN: *immune globulin*.

antilymphocyte s. [ān'tī-lĭm'fō-sīt'] ABBR: ALS. An antibody-containing serum used to reduce rejection of transplanted organs and tissues. Its immunosuppressive effects are directed against B and T lymphocytes, the cells that promote the formation of antibodies and of cell-mediated immunity. SYN: *antilymphocyte globulin*.

convalescent s. Serum from a person recovering from an infection.

foreign s. Serum from one species into another.

grouping s. A serum used for determining the blood group to which unknown cells belong. The grouping serums commonly used are human serums secured from donors and rabbit antisera prepared commercially.

immune s. Serum containing antibodies for specific antigens.

polyvalent s. Serum containing antibodies to several antigens.

pooled s. Serum collected from several donors.

pregnant mare's s. Serum derived

from the blood of pregnant mares; source of hormones, esp. gonadotropins.

serum bank A laboratory or storage facility where samples of serum are kept, typically at subfreezing temperatures, for their future value in the retrospective study of important or emerging diseases. The JANUS serum bank, in Norway, has one of the largest and best organized national collections of stored serum; its specimens have been used primarily in studies of tumor markers.

serum-fast Capable of resisting the antibodies present in serum. SYN: *sero-fast*.

serum glutamic-oxaloacetic transaminase ABBR: SGOT. Aspartate aminotransferase.

serum glutamic pyruvic transaminase ABBR: SGPT. Alanine aminotransferase.

serum protein-expression profiling Protein profiling.

serum protein profiling Protein profiling.

serum therapy Serotherapy.

serve To deliver a legal document to a person named in it. This is done formally to comply with due process of law.

service Help or assistance (e.g., for persons who are needy, sick, or injured).

service animal Any animal (often a dog) specially trained to assist a person who is blind, deaf, or in some manner disabled. Also called an *assistance animal*.

servomechanism (sŭr'vō-mĕk'ā-nĭzm) In biology and physiology, a control mechanism that operates by negative or positive feedback. For example, when in the normal person the blood glucose level rises, the pancreas responds by releasing insulin, which enables the glucose to be metabolized. The level of other hormones is also regulated by this mechanism.

SES *socioeconomic status*.

sesamoid (sĕs'ā-moyd) [L. *sesamoides*] Resembling a grain of sesame in size or shape.

sesamoiditis (sĕs'ā-moy-dī'tis) [ʹ + Gr. *itis*, inflammation] Inflammation of a sesamoid bone.

sesqui- [L.] Prefix meaning *one and one-half*.

sessile (sĕs'l) [L. *sessilis*, low] Having no peduncle but attached directly by a broad base.

session (sĕsh'ĭn) [Med. L. *sessio*, (law court) sitting] Any formal clinical encounter between a patient and a therapist. In psychology and psychiatry, each visit with a client constitutes a session. A meeting between the parties may have a single objective (e.g., to analyze feelings of loss or grief) or multiple goals (e.g., to quit smoking *and* increase exercise). Each chiropractic adjustment is a session, as is each whirlpool treatment provided to an injured athlete, or each

visit with a speech therapist for a patient with swallowing difficulties.

sestamibi Technetium Tc 99m sestamibi.

set **1.** To fix firmly in place, as to set a bone in reduction of a fracture. **2.** To allow an amalgam or plaster to harden. **3.** In psychology, a group of conditions or attitudes that favor the occurrence of a certain response. **4.** In resistance exercise, a grouping of repetitions of a specific exercise.

limited data s. Minimally identifying information about a patient's medical care (e.g., dates of admission and discharge from hospital; the patient's dates of birth, death, and age; and the zip code in which the patient resides). Under regulations of the Health Insurance Portability and Accountability Act (HIPAA), data that reveal more about a patient (e.g., name, address, social security number) cannot be divulged in communication between health care agencies or professionals without the patient's explicit approval.

seta (sĕ'tā) *pl.* **setae** [L., bristle] A stiff, bristle-like structure. SEE: *vibrissae*.

setaceous; setiferous (sĕ-tā'shŭs), *adj.*

seton (sĕ'tŏn) [L. *seta*, bristle] **1.** A thread or threads drawn through a fold of skin to act as a counterirritant or as a guide for instruments. **2.** A suture tied about an anal fistula to maintain drainage while fibrosis gradually obliterates the fistulous tract.

setose (sĕ'tŏs) Having bristle-like appendages.

set-point (sĕt'-poynt') The concept that homeostatic mechanisms maintain variables such as body temperature, body weight, blood glucose level, and hormone levels within a certain physiological range compatible with optimal function. SYN: *settling point*. SEE: *homeostasis*.

set sensitivity In mechanical ventilation, the inspiratory pressure at which the patient's respiratory effort triggers a breath from the ventilator.

set test A global (i.e., holistic) test of a patient's ability to make categories. It demonstrates motivation, alertness, concentration, short-term memory, and problem solving. The patient is asked to name 10 items in each of four groups: fruits, animals, colors, and towns or cities. Then the patient is asked to categorize, count, name, and remember the items listed. The test is scored by giving one point for each correctly recalled item. A maximum of 40 points is possible. Scoring less than 15 is associated with dementia; more than 25 indicates absence of dementia; and scores between 15 and 24 require further investigation to distinguish between mental changes and cultural, educational, and social factors.

settlement **1.** In health insurance, pay-

ment to the policyholder for claims made against the insurance company. **2.** In liability or malpractice litigation, an agreement between disputants that satisfies the needs of both parties.

viatical s. The purchase—at a discount—of a life insurance policy from a gravely ill patient. The buyer becomes the beneficiary of the policy; the viator receives a lump sum payment before dying.

settling point Set-point.

setup (sĕt'ŭp) The arrangement of teeth on a trial denture base.

Sever's disease (sĕ'vĕrz) [James W. Sever, U.S. orthopedist, 1878–1964] Apophysitis of the calcaneus in adolescent children who are actively engaged in sports. This overuse syndrome is best treated with icing, Achilles tendon stretching, anti-inflammatory medication, and rest from weight bearing. Heel lifts are usually used unless the child has pronated feet, in which case medial heel wedges are indicated.

severe acute respiratory distress syndrome ABBR: SARS. A highly contagious, potentially lethal viral respiratory illness first diagnosed in the People's Republic of China in November 2002, characterized by a fever of higher than 100.4°F, cough, difficulty breathing, or hypoxia. The severe variant of the syndrome is present when a person has a radiograph compatible with pneumonia or autopsy findings consistent with pneumonia. Instances of the disease without pneumonia are considered moderate infections. The disease should be strongly suspected in someone who has had close contact within the last 10 days with a person known to have or suspected of having SARS or in someone who has traveled within the last 10 days to a part of the world where SARS is currently reported. The disease is confirmed by the identification of antibody to the causative virus (SARS coronavirus) or the isolation of SARS coronavirus from the infected person.

severe combined immunodeficiency disease ABBR: SCID. A syndrome marked by gross functional impairment of both humoral and cell-mediated immunity and by susceptibility to fungal, bacterial, and viral infections. Although the disorder may occur sporadically, most commonly it is inherited and transmitted as an X-linked or autosomal recessive trait. If untreated, infants rarely survive beyond 1 year. It is important that the disease be recognized early and that patients not be given live viral vaccines or blood transfusions. The immunologic defects may be repaired by stem cell transplantation. The optimal donor is an HLA-identical family member of the patient.

Severinghaus electrode (sěv'ě-rīng-hows") Carbon dioxide electrode.

sewage The waste water that passes through sewers. It may be composed of bodily excretions, the waste water and solid waste of residential and commercial establishments, or the solvents and other toxic wastes of industry. Bodily excretions discharged as sewage are potentially infectious and may be the source of epidemic outbreaks of diarrhea or other contagious illnesses. Other sewage components, esp. toxic oils and solvents, may pollute rivers and beaches, destroying fishing and shellfish beds.

sex [L. *sexus*] **1.** The characteristics that differentiate males and females in most plants and animals. **2.** Gender.

chromosomal s. Sex as determined by the presence of the female XX or male XY genotype in somatic cells.

morphological s. The sex of an individual as determined by the form of the external genitalia.

nuclear s. The genetic sex of an individual determined by the absence or presence of sex chromatin in the body cells, particularly white blood cells.

oral s. Cunnilingus; fellatio.

psychological s. The individual's self-image of his or her gender, which may be at variance with the morphological sex.

sex clinic A clinic for the diagnosis and treatment of sexual dysfunction.

sex determination **1.** The identification of the gender of an animal or human with an ambiguous physical appearance or ambiguous genitalia. In colloquial speech, this process is sometimes referred to as "sex testing." **2.** The identification, during in vitro fertilization, of the gender of a human preimplantation embryo.

sex drive Motivation, both psychological and physiological, for behavior associated with procreation and erotic pleasure.

seduction (sěks-dŭk'shŭn) In bacteriology, the transfer of DNA, in combination with a fertility plasmid, from a donor bacterium to a recipient bacterium.

sexing (sěk'sīng) Determining the sex of a fetus or embryo.

sexism All of the actions and attitudes that relegate individuals of either sex to a secondary and inferior status in society.

sexivalent (sěks'ī-vă'lěnt, -iv'ăl-ěnt) [+ *valere*, to be strong] Capable of combining with six atoms of hydrogen.

sex-limited The expression of a genetic character or trait in one sex only.

sex-linked SEE: under *characteristic*.

sexology (sěks-ŏl'ŏ-jě) [L. *sexus*, sex, + Gr. *logos*, word, reason] Scientific study of sexuality.

sex ratio The ratio of males to females in

a given population, usually expressed as the number of males per 100 females. It is used in defining the proportion of births of the two sexes or in the representation by sexual distribution in certain diseases.

sextan (sěks'tăn) [L. *sextanus*, of the sixth] Occurring every sixth day.

sex test Sex determination.

sex therapy A form of psychotherapy involving sexual guidance for partners with sexual incompatibilities or sexual dysfunction.

sextuplet (sěks'tŭp-lět) [L. *sextus*, six] One of six children born of a single gestation.

sexual (sěks'ŭ-ăl) [L. *sexualis*] **1.** Pert. to sex. **2.** Having sex.

Sexual Assault Response Team ABBR: SART. A group of health care professionals who have had special preparation in the examination of rape victims. The training includes techniques for collecting, labeling, and storing evidence so it may be used in court proceedings concerning the person accused of rape and in psychological approaches to reduce the emotional trauma. SEE: *rape*.

sexual dysfunction The state in which an individual experiences a change in sexual function during the sexual response phases of desire, excitation, and/or orgasm which is viewed as unsatisfying, unrewarding, inadequate. There may be multiple causes, including lack of sexual interest or desire; impairments in sexual arousal (e.g., erectile function in men or vaginal lubrication or clitoral enlargement in women); inability to achieve orgasm or to delay orgasm until one's partner is satisfied; pain during intercourse; medical or hormonal conditions that impair sexual function; substance abuse issues; or prescription drug-related problems. A careful history and physical examination will help to determine the possible pathological aspects of the various phases. Is desire absent, overactive, or is there aversion? Is arousal sufficient to maintain desire and, in men, to attain erection? Does orgasm occur, and, if so, is it delayed or premature? Do the partners experience satisfaction at the completion of orgasm? Is pain present at any stage of the sexual activity?

The physical or mental factors that are involved should be treated and, when medications are responsible, alternate drugs should be substituted for those that appear to cause the disorder. SEE: *Nursing Diagnoses Appendix*.

sexual harassment Unsolicited and unwelcome verbal or physical sexually oriented conduct or innuendos. There are two types of sexual harassment: quid pro quo, in which compliance with a harasser's wishes may become a condition of continued employment or advance-

ment; and a hostile work environment in which the unwanted attentions of another person make the workplace a threatening, demeaning, or unsafe environment. A hostile work environment may also be created by offensive conduct that creates an intimidating atmosphere interfering with the work performance of the victim. The victim does not have to be the person harassed.

sexual health The World Health Organization has defined three elements of sexual health: a capacity to enjoy and control sexual behavior in accordance with a social and personal ethic; freedom from fear, shame, guilt, false beliefs, and other psychological factors inhibiting sexual response and impairing sexual relationships; and freedom from organic disorders, disease, and deficiencies that interfere with sexual and reproductive functions. Medical studies of human sexual function and activity have provided no evidence that having attained a certain age is, of itself, reason to discontinue participating in and enjoying sexual intercourse. SEE: *sexually transmitted disease*.

sexual intercourse Any sexual union between two or more partners in which at least one partner's genitalia are stimulated. SYN: *coition*; *coitus*; *copulation*; *pareunia*.

sexuality (sĕks-ŭ-ăl'ĭ-tĕ) [L. *sexus*, sex]

1. The state of having sex; the collective characteristics that mark the differences between the male and the female.

2. The constitution and life of an individual as related to sex; all the dispositions related to intimacy, whether associated with the sex organs or not.

sexuality patterns, ineffective Expressions of concern regarding one's own sexuality. SEE: *Nursing Diagnoses Appendix*.

sexually transmitted disease ABBR: STD. Any disease that may be acquired as a result of sexual intercourse or other intimate contact with an infected individual. A more inclusive term than "venereal disease," STDs include disease caused by bacteria, viruses, protozoa, fungi, and ectoparasites. SEE: table; *Nursing Diagnoses Appendix*.

sexual maturity rating The order and extent of the development of a patient's primary and secondary sexual characteristics as compared with the established norms for chronological age. In both sexes, the changes leading to puberty are the result of major hormonal changes that, although somewhat variable in age of occurrence, proceed in a predictable sequence. Assessing the degree of age-related sexual maturity enables the health care provider to detect abnormalities and to provide anticipatory guidance for the patient and family. An important and easily identified de-

velopment in a girl is the onset of menstruation. Physical changes in the male such as voice change, facial hair growth, and testicular and penile growth are obvious but occur over a prolonged period.

sexual offense registry A list of previously convicted sex offenders living or incarcerated in a community.

sexual preference The sexual orientation one prefers in choosing his or her sex partners.

sexual reassignment The legal, surgical, or social action or decision to assign the appropriate sexuality to an individual who has been considered previously to be of the opposite (or ambiguous) sex.

sexual stimulant Any drug (e.g., alcohol used in modest amounts) or pheromone that acts as an aphrodisiac for humans or animals.

Sézary cell (să'ză-rĕ') [A. Sézary, Fr. dermatologist, 1880–1956] A T lymphocyte that contains an abundance of vacuoles filled with a mucopolysaccharide; present in the blood of patients with cutaneous T-cell lymphoma who develop Sézary syndrome. SEE: *illus.*

SGA *small for gestational age*.

SGO *Surgeon-General's Office*.

SGOT *serum glutamic-oxaloacetic transaminase*.

SGPT *serum glutamic pyruvic transaminase*. This liver enzyme is now called alanine aminotransferase.

SH *serum hepatitis*.

shadow [AS. *sceaduwe*] Achromocyte.

shadow-casting A technique to increase the definition of the material being examined by use of electron microscopy. The object is sprayed from an oblique angle with a heavy metal.

shadowing In radiology, loss of the ability to visualize a body structure because of interference by another part.

shadowing behavior Following another person quietly or disruptively, a characteristic of some people with dementia.

shaft [AS. *sceaft*] **1.** The principal portion of any cylindrical body. **2.** The diaphysis of a long bone.

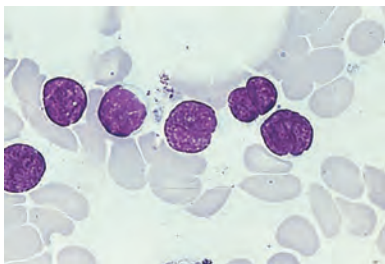
hair s. The keratinized portion of a hair that extends from a hair follicle beyond the surface of the epidermis. SEE: *hair*.

shaken-baby syndrome A syndrome seen in abused infants and children, sometimes referred to as "shaken impact syndrome" because of the accompanying impact injuries to the head. The patient has been subjected to violent, whiplash-type shaking injuries inflicted by an abuser. This may cause coma, convulsions, and increased intracranial pressure, resulting from tearing of the cerebral veins, with consequent bleeding into the subdural space. Retinal hemorrhages and bruises on the arms or trunk where the patient was forcefully grabbed are usually present.

Causative Agents of Sexually Transmitted Diseases

Organism	Associated Diseases
Bacteria	
<i>Klebsiella granulomatis</i>	Donovanosis (granuloma inguinale)
<i>Campylobacter</i> species	Enteritis, proctocolitis
<i>Chlamydia trachomatis</i>	Genital tract infections and Reiter's syndrome
<i>Gardnerella vaginalis</i>	Bacterial (nonspecific) vaginosis
Group B streptococcus	Neonatal sepsis
<i>Haemophilus ducreyi</i>	Chancroid
<i>Mycoplasma hominis</i>	Postpartum fever; meningitis
<i>Neisseria gonorrhoeae</i>	Genital tract infections, disseminated gonococcal infection
<i>Shigella</i> species	Shigellosis; gay bowel syndrome
<i>Treponema pallidum</i>	Syphilis
<i>Ureaplasma urealyticum</i>	Nongonococcal urethritis
Viruses	
Cytomegalovirus	Heterophile-negative infectious mononucleosis, birth defects, protean manifestations in the immunocompromised host
Hepatitis A	Acute hepatitis
Hepatitis B	Acute and chronic hepatitis B, cirrhosis, hepatocellular carcinoma
Hepatitis C	Acute and chronic hepatitis, cirrhosis, hepatocellular carcinoma
Herpes simplex	Genital herpes, aseptic meningitis
Human herpesvirus, type 8	Kaposi's sarcoma, lymphoma
Human immunodeficiency virus types 1 and 2	AIDS (acquired immunodeficiency syndrome)
Human papilloma (70 separate types)	Condyloma acuminata, cervical intraepithelial neoplasia and carcinoma, vulvar carcinoma, penile carcinoma
Human T-lymphotropic retrovirus, type 1	Human T-cell leukemia or lymphoma
A pox virus	Genital molluscum contagiosum
Protozoa	
<i>Entamoeba histolytica</i>	Amebiasis in people who have oroanal sex
<i>Giardia lamblia</i>	Giardiasis in people who have oroanal sex
<i>Trichomonas vaginalis</i>	Trichomonal vaginitis
Ectoparasites	
<i>Phthirus pubis</i>	Pubic lice infestation
<i>Sarcoptes scabiei</i>	Scabies

NOTE: Many of these diseases can be transmitted by contact that is not sexual.



SÉZARY CELLS

In peripheral blood ($\times 1000$)

INCIDENCE: About 50,000 cases are reported each year in the U.S. This number probably represents under-reporting.

DIAGNOSIS: The presence of retinal hemorrhage, cerebral edema, and subdural hematoma—either individually or in any combination—strongly suggests the diagnosis in the absence of other explanations for the trauma. Radiological imaging is used to identify the specific sites of injury.

PROGNOSIS: The prognosis for affected infants and children is extremely guarded. Only about 15% to 20% of them recover without sequelae, such as

vision and hearing impairments, seizure disorders, cerebral palsy, and developmental disorders requiring ongoing medical, educational, and behavioral management. SEE: *battered child syndrome; abuse, child.*



In domestic situations in which a child is abused, it is important to examine other children and infants living in the same home because about 20% of these children will have signs of physical abuse as well. That examination should be done without delay, to prevent further abuse.

shakes (shāks) [AS. *sceacen*] **1.** Shivering caused by a chill, esp. in intermittent fever. **2.** Colloquial term for state of tremulousness and extreme irritability often seen in chronic alcoholics. SYN: *jitters.*

shake test A quick test to estimate fetal lung maturity. A sample of amniotic fluid is diluted with normal saline, mixed with 95% ethyl alcohol, and shaken for 30 sec. The continued presence of small foamy bubbles in the solution after 15 min confirms the presence of pulmonary surfactant. SYN: *foam stability test; rapid surfactant test.*

shaking **1.** A passive large-amplitude vibratory movement used in massage. **2.** A vibratory technique used in chest physical therapy to facilitate pulmonary drainage.

shaman (shā'mūn, shō'-) [Russ., ascetic] A healer (usually from a tribal or pre-industrial culture) who uses non-Western practices and techniques, including faith healing, spirituality, psychological manipulation, chanting, rituals, magic, and culturally meaningful symbolism to restore health or well-being to the sick. SYN: *medicine man.* SEE: *shamanism.*

shamanism (shā'mūn-izm, shō'-) **1.** Religion of certain peoples of northern Asia who believe good and evil spirits pervade the world and can be influenced only by shamans acting as mediums. **2.** Any similar form of spiritual or magical healing, such as that practiced in many tribal cultures. SYN: *aboriginal healing.*

sham therapy Treatment that has no known therapeutic effect. Such treatment may be employed by clinical researchers who are trying to determine whether another intervention will be more effective than doing nothing. Sham therapies are also sometimes used by people engaging in health care fraud.

Shanghai fever (shāng'hī) A diarrheal illness caused by *Pseudomonas* species, associated with high fever, a rose-colored spotted rash that resembles ty-

phoid, and headache. The infection is usually contracted in the tropics.

shank (shāngk) [AS. *sceanca*] **1.** Shin.

2. The tapered portion of a dental hand instrument between the handle and the blade or nub. It may be straight or angled to provide better access or leverage in its use.

shape (shāp) [AS. *sceapan*] **1.** To mold to a particular form. **2.** Outward form; contour.

shared decision-making Any negotiated agreement between a patient, her family, and health care professionals. Successful shared decision-making is dependent on the good will, rationality and competence of all parties.

shared governance A model of nursing management in which the staff nurse shares responsibility and accountability for patient care with the clinical agency management. Shared governance assumes a participatory style of management and aims to achieve a high quality of patient care and professional nursing practice. Shared governance differs both from self-governance and from the traditional bureaucratic model of nursing management. SEE: *self-governance.*

sharkskin A condition seen in pellagra (nicotinic acid deficiency) in which openings of sebaceous glands become plugged with a dry yellowish material.

sharp end In a health care institution, those personnel and components that work in direct contact with patients.

sharps (shārpz) A colloquial term for medical articles that may cause punctures or cuts to those handling them, including all broken medical glassware, syringes, needles, scalpel blades, suture needles, and disposable razors. Potential infectious risks posed by injury with sharps include HIV, hepatitis B, and hepatitis C infections. SEE: *medical waste; red bag waste; Standard and Universal Precautions Appendix.*

shear (shēr) A frictional force per unit of surface area applied parallel to the planes of any object.

sheath (shēth) [AS. *sceath*] **1.** A covering structure of connective tissue, usually of an elongated part, such as the membrane covering a muscle. **2.** An instrument introduced into a vessel during angiographic procedures when multiple catheter changes are anticipated. It facilitates ease of change and decreases morbidity at the puncture site.

PATIENT CARE: The sheath introduced into the femoral artery, the preferred vascular access route for percutaneous coronary intervention, is a 4 to 6 French (1.35 to 2 mm) in size. The sheath remains in place after completion of the procedure and removal of the catheter until anticoagulation is reversed or anticoagulants are below peak action. The sheath is connected to high-

pressure tubing and a flushing system; manual or automatic flushing keeps the line patent. A stopcock connected to the system permits drawing of blood samples.

axon s. A myelin sheath or a neurilemma. SEE: *myelin s.*

carotid s. The portion of cervical or pretracheal fascia enclosing the carotid artery, interior jugular vein, and vagus nerve.

crural s. The fascial covering of femoral vessels.

dural s. A fibrous membrane or external investment of the optic nerve.

femoral s. The fascia covering the femoral vessels.

s. of Hertwig SEE: *Hertwig's root sheath.*

myelin s. Layers of the cell membrane of Schwann cells (peripheral nervous system) or oligodendrocytes (central nervous system) that wrap nerve fibers, providing electrical insulation and increasing the velocity of impulse transmission. SEE: *nerve fiber; neuron.*

periarterial lymphoid s. The tissue composed of T lymphocytes that surrounds each arteriole in the spleen. The sheaths are attached to lymphoid follicles containing B cells and make up much of the white pulp. SEE: *spleen.*

pial s. An extension of the pia that closely invests the surface of the optic nerve.

rectus s. A strong fibrous sleeve in which the rectus abdominis and pyramidalis muscles contract. The sheath is formed from the aponeuroses of the abdominal wall muscles as they meet in the linea alba at the abdominal midline.

root s. 1. One of the layers of a hair follicle derived from the epidermis. It includes the outer root sheath, which is a continuation of the stratum germinativum, and the inner root sheath, which consists of three layers of cells that closely invest the root of the hair. SEE: *hair.* 2. The epithelial covering that induces root formation in teeth. Also called *Hertwig's root sheath.*

tendon s. A dense fibrous sheath that confines a tendon to an osseous groove, converting it into an osteofibrous canal. It is found principally in the wrist and ankle. SEE: *synovial s.*

shedding [ME. *sheden*, shed] 1. A colloquial term for the loss of deciduous teeth. 2. Casting off of the surface layer of the epidermis. 3. The release of bacteria or viruses from a body surface.

Sheehan's syndrome (shē'ēnz) [Harold L. Sheehan, Brit. pathologist, 1900–1988] Hypopituitarism resulting from an infarct of the pituitary following postpartum shock or hemorrhage. Damage to the anterior pituitary gland causes partial to complete loss of thy-

roid, adrenocortical, and gonadal function.

sheep cell agglutination test ABBR: SCAT. A test for rheumatoid factor in serum. Sheep erythrocytes sensitized with rabbit antisherp erythrocyte immune globulin will be agglutinated if serum containing the rheumatoid factor is added.

sheet (shēt) [AS. *sciete*, cloth] 1. A linen or cotton bedcovering. 2. Something that resembles a sheet (e.g., a sheet of connective tissue).

beta s. A protein structure in which parallel layers of linked peptides are folded across each other. This structure is characteristic of amyloid proteins.

draw s. A sheet folded under a patient so that it may be withdrawn without lifting the patient. This is accomplished by turning the patient to the side of the bed to allow one side of the sheet to be removed and replaced with a clean one. The patient is then turned to the other side of the bed. The soiled sheet is removed and replaced with a clean one. In most inpatient facilities, draw sheets have been replaced by paper and plastic pads that resemble disposable diapers.

flows s. A representation in outline or picture format of a technique or treatment.

lift s. Sheet folded under a patient over the bottom sheet to assist with moving the patient up in bed.

shelf Any shelflike structure.

dental s. SYN: *dental lamina.*

shelf life 1. The time a food may be kept in storage and still be considered safe to eat. 2. The time a substance, preparation, or medication can be kept without separation or chemical changes of its components. 3. The time that a drug or biomaterial will maintain its effectiveness or integrity.

shelf-life extension Preservation of the purity and potency of a therapeutic agent beyond its expected expiration date.

shell A hard covering, as that for an egg or turtle.

shellac (shē-lāk') A refined resinous substance obtained from plants that contain the secretions of certain insects. It is used in paints, varnishes, dry compounding, and in dentistry.



Some individuals may develop contact dermatitis after exposure to shellac.

shell shock A term used during World War I to designate a wide variety of psychotic and neurotic disorders associated with the stress of combat. SEE: *post-traumatic stress disorder.*

Shenton's line (shēn'tōnz) [Thomas

Shenton, Brit. radiologist, 1872–1955] A radiographical line used to determine the relationship of the head of the femur to the acetabulum. The line follows the inferior border of the ramus of the pubic bone and continued outward follows the curve down the medial border of the neck of the femur.

Sherrington phenomenon (shĕr'ing-tŏn) [Sir Charles Scott Sherrington, Brit. physiologist, 1857–1952] Contraction of denervated skeletal muscle by stimulating autonomic cholinergic fibers innervating its blood vessels.

shiatsu, shiatsu (shĕ'ät-soo) [Chinese, finger + pressure] In traditional Japanese culture, the therapeutic application of pressure to acupuncture points.

shield (shĕld) [AS. *scild*, shield] **1.** A cover or barrier; any layer or structure that limits exposure to a potentially toxic agent, such as a source of body fluids or radiation. **2.** In biology, a protective plate or hard outer covering.

face s. A mask, typically made of clear plastic, that protects the mucous membranes of the eyes, nose, and mouth during patient-care procedures and activities that carry the risk of generating splashes of blood, body fluids, excretions, or secretions. SEE: *Standard and Universal Precautions Appendix*.

gonadal s. A lead device that is placed over the gonadal area to help protect it during radiation exposure.

nipple s. SEE: under *nipple*.

shift [AS. *scifan*, to arrange] A change in position or direction.

antigenic s. A major change in the genetic makeup of an organism, usually resulting from gene reassortment or occurring when different species share genetic material. The influenza virus type A is the most common example of an organism that undergoes antigenic shift. This process may create a new pathogen against which there is no immunity in the population, and pandemics can result. SEE: *antigenic drift*.

chloride s. The shift of chloride ions from the plasma into the red blood cells upon the addition of carbon dioxide from the tissues, and the reverse movement when carbon dioxide is released in the lungs. It is a mechanism for maintaining constant pH of the blood.

s. to the left **1.** In hematology, an increase in the number of immature polymorphonuclear leukocytes in the blood. SEE: *Arneth's classification of neutrophils*. **2.** In acid-base physiology, a left-shifted oxyhemoglobin dissociation level, indicating an increased affinity of hemoglobin for oxygen.

s. to the right In hematology, an increase in the number of older polymorphonuclear leukocytes in the blood.

SEE: *Arneth's classification of neutrophils*.

shift work A staffing arrangement in which some employees work during the day and others in the evening or at night. Shift work is a common method of scheduling used in many industries to maximize productivity over a 24-hr day and in health care, where patients' needs may arise at any time of the day or night. A great number of persons work regularly at night, either on a permanent or rotating schedule. In most of these workers, adaptation to the altered work schedule is imperfect; sleep disturbances and other medical and psychosocial problems have often been found in shift workers. Among other problems, many night-time or rotating shift workers often have family obligations during the day, which compromise their ability to obtain adequate rest before or after work.

Shiga's bacillus (shĕ'gäs) [Kiyoshi Shiga, Japanese physician, 1870–1957] *Shigella dysenteriae*.

Shiga toxin (shĕ'gä) [Kiyoshi Shiga, Japanese physician and bacteriologist, 1871–1951] An extremely poisonous compound secreted by certain enteric bacteria that causes hemorrhagic and necrotic colitis. The toxin was formerly called verotoxin because of its effect on Vero cells (lineages of cells used in cell cultures and isolated from kidney epithelial cells of the African green monkey [*Cercopithecus aethiops*]).

ETIOLOGY: The toxin acts on the endothelial cells lining the blood vessels. The B subunits of the toxin bind to a component of the cell membrane known as Gb3 and enter the cell. When the protein is inside the cell, the A subunit interacts with the ribosomes to stop protein synthesis. Like the ricin toxin, the A subunit of Shiga toxin is an N-glycosidase that modifies the RNA component of the ribosome to stop protein synthesis, leading to the death of the cell. The breakdown of the endothelial cell lining leads to hemorrhage.

SYMPTOMS: The first sign of shiga toxin activity is usually bloody diarrhea. This is because Shiga toxin is usually taken in with contaminated food or water.

Shigella (shĭ-gĕl'lä) [Kiyoshi Shiga, Japanese physician and bacteriologist, 1871–1951] A genus of gram-negative, non-lactose-fermenting bacilli of the family Enterobacteriaceae. It contains a number of species that cause digestive disturbance ranging from mild diarrhea to a severe and often fatal dysentery. SEE: *dysentery, bacillary*.

S. boydii A species that causes acute diarrhea in humans.

S. dysenteriae A species that causes severe, epidemic diarrhea.

S. flexneri A species that is a frequent cause of acute diarrhea in humans.

S. sonnei A species that is a frequent cause of bacillary dysentery.

shigellosis (shī'gèl-lō'sīs) [*Shigella* + *osis*, condition] Infection of the gastrointestinal tract, esp. the distal colon, by *Shigella*. Common symptoms include fever, bloody diarrhea, and abdominal cramps. Because *Shigella* are transmitted from person to person by the fecal-oral route, prevention requires thorough handwashing after toileting by toddlers, young children, and adults. The disease may also be contracted by direct oroanal contact and from food or water contaminated by sewage.

shim (shīm) [Of uncertain origin] In magnetic resonance imaging, to improve the homogeneity of the main magnetic field.

shin (shīn) [AS. *scinu*, shin] The anterior edge of the tibia, the portion of the leg between the ankle and knee. SYN: *shank*.

saber s. A condition seen in congenital syphilis in which the anterior edge of the tibia is extremely sharp.

shiner (shī'nēr) A slang term for a black eye, a dark or purplish hue to the skin seen just beneath the eyes. Black eyes may be seen in some people with nasal allergies or after facial injuries.

shingles (shīng'lz) [L. *cingulus*, a girdle] The colloquial name of the dermatomal rash caused by herpes zoster. SEE: *illus.*; *herpes zoster*.



SHINGLES

shinrin-yoku (shīn-rīn-yō'koo) [Japanese, "forest-air-bathing"] In traditional Chinese medicine, walking and bathing in the forest to promote good health and prevent the effects of aging. The air and aromas of the forest are also believed to be therapeutic.

shin splints (shīn'splīnts) A nondescript pain in the anterior, posterior, or posterolateral compartment of the tibia. It usually follows strenuous or repetitive exercise and is often related to faulty foot mechanics such as pes planus or pes cavus. The cause may be ischemia of the muscles in the compartment, minute

tears in the tissues, or partial avulsion from the periosteum of the tibial or peroneal muscles. Proper shoes and foot orthotics may help to prevent onset of the condition. A definitive diagnosis is required for proper treatment. Management may consist of ice packs, anti-inflammatory medications, decrease in the intensity of exercise (including the avoidance of hills and hard surfaces when running), and modification of footwear. SYN: *medial tibial syndrome*.

Shirodkar operation (shē'rōd-kār) [Shirodkar, Indian physician, 1900–1971] The surgical placement of a purse-string suture around an incompetent cervical os to attempt to prevent the premature onset of labor. The suture material used for this cerclage procedure is nonabsorbable and must be removed before delivery. SEE: *cervical incompetence*.

shiver (shiv'ēr) [ME. *chiveren*] **1.** Involuntary increased muscle activity in response to fear, onset of fever, or exposure to cold. The activity leads to increased heat production. **2.** To tremble or shake.

shock (shōk) [ME. *schokke*] **1.** A clinical syndrome marked by inadequate perfusion and oxygenation of cells, tissues, and organs, usually as a result of marginal or markedly lowered blood pressure.

ETIOLOGY: Shock may be caused by dehydration, hemorrhage, sepsis, myocardial infarction, valvular heart disease, cardiac tamponade, adrenal failure, burns, trauma, spinal cord injury, hypoxia, anaphylaxis, poisoning, and other major insults to the body.

SYMPTOMS: Shock results in failure of multiple organ systems, including the brain, heart, kidneys, lungs, skin, and gastrointestinal tract. Common consequences of shock are confusion, agitation, anxiety, or coma; syncope or presyncope; increased work of breathing; respiratory distress; pulmonary edema; decreased urinary output; and/or acute renal failure. Signs of shock include tachycardia, tachypnea, hypotension, and cool, clammy, or cyanotic skin.

TREATMENT: Attempts to restore normal blood pressure and tissue perfusion include fluid resuscitation (in hypovolemic shock); control of hemorrhage (in shock caused by trauma or bleeding); administration of corticosteroids (in adrenal failure); pressor support (in cardiogenic or septic shock); the administration of epinephrine (in anaphylaxis); antibiotic administration with the drainage of infected foci and administration of activated drotrecogin alfa (in sepsis); pericardiocentesis (in cardiac tamponade); transfusion; and oxygenation. Oral or parenterally administered sugars (typically glucose)

can treat hypoglycemia caused by insulin, oral hypoglycemic drugs, or insulinomas.

CRITICAL CARE: The shock syndrome is a life-threatening medical emergency and requires very careful therapy and monitoring. If the patient does not respond at once, treatment and monitoring in the best facility available (e.g., intensive care unit) are essential. It is important that the ECG, arterial and central venous blood pressures, blood gases, core and skin temperatures, pulse rate, blood volume, blood glucose, hematocrit, cardiac output, urine flow rate, and neurological status be monitored on an ongoing basis (e.g., hourly).

PATIENT CARE: Patients at risk for shock include, but are not limited to, those with severe injuries, external or suspected internal hemorrhage, profound fluid loss or sequestration (severe vomiting, diarrhea, burns), allergen exposures, sepsis, impaired left ventricular function, electrical and thermal injuries (including lightning strikes), and diabetes (if receiving supplemental insulin).

One, two, or more large-bore intravenous catheters are inserted, and prescribed fluid therapy is initiated. External monitoring of vital signs is instituted; a pulmonary artery catheter may be placed or impedance cardiography instituted for precise hemodynamic monitoring; and an indwelling urinary catheter is inserted to track urine output hourly. Prescribed oxygen therapy is provided; SaO_2 , arterial blood gas levels (ABGs), and ventilatory function are monitored to determine the need for ventilatory support. If occult bleeding is suspected, stools and gastric fluids are tested, and injured tissues and spaces are carefully assessed or imaged. Routine measures are taken to reduce the risk of decubitus ulcers, muscular atrophy, deep venous thrombosis, delirium, and contractures. The patient is maintained in a normothermic environment for comfort. Radiant warmers are useful in preventing hypothermia in patients who cannot be kept clothed or covered during assessment and treatment. The environment is kept as calm and controlled as possible. Procedures and treatments are explained to the patient in a simple, clear, easily understandable manner.

Positioning is based on the particular shock type. Although hypovolemic shock states respond best to supine positioning, or even elevation of the feet and lower legs, cardiac and anaphylactic shock states require head elevation to ease ventilatory effort. Correct body alignment should be maintained, whatever the necessary position. Oral fluids are often withheld to prevent vomiting

and aspiration. Oral care and misting are provided frequently to prevent dryness, stomatitis, sordes, and salivary obstructions. The patient's sensorium is closely assessed, and sensory overload is prevented as much as possible. Regular assessments are conducted for acute organ dysfunction (e.g., urine output below 0.5 ml/kg/hr, hypotension, hypoxemia, lactic acidosis, and low platelet count). While providing comfort measures and emotional support, the health care professional acts as a liaison to family members or significant others, providing them with information about the patient's status and the treatment regimen. If shock is irreversible, the family must prepare for the patient's death; family members are encouraged to be with, talk to, and touch the patient, and social work and mental health consultations or spiritual measures may be obtained for the patient and family as determined by their beliefs and desires.

2. An electrical shock, e.g., a discharge of electricity from a cardioverter or defibrillator. SEE: *Nursing Diagnosis Appendix*.

anaphylactic s. Rapidly developing, systemic anaphylaxis that produces life-threatening acute airway obstruction followed by vascular collapse within minutes after exposure to an antigen. SEE: *allergy; anaphylaxis*.

ETIOLOGY: The condition is the result of a type I allergic or hypersensitivity reaction during which the allergen is absorbed into the blood directly or through the mucosa. The most common agents are bee or wasp venoms, drugs (e.g., penicillins), and radiographic contrast media. It also can be triggered by severe food allergies (shellfish, peanuts) and by latex exposure. Individuals with a history of asthma, eczema, or hay fever are at increased risk. Chemical mediators released during the reaction cause constriction of the bronchial smooth muscle, vasodilation, and increased vascular permeability.

SYMPTOMS: Initial symptoms include anxiety, tingling, itching, or warm feelings and skin rash, a metallic taste, swelling of lips and tongue, dyspnea, wheezing, vomiting, abdominal cramps, diarrhea, light-headedness, dizziness, and chest pain. Severe symptoms include acute respiratory distress, hypotension, edema, rash, tachycardia, pale cool skin, convulsions, and cyanosis. If no treatment is received, unconsciousness and death may result. Tissue swelling can be life-threatening if the larynx is involved, since air flow is obstructed with even minimal swelling.

PREVENTION: A history of past allergic reactions, particularly to bee stings, drugs, blood products, or contrast me-

dia, is obtained. The at-risk patient is observed for reaction during and immediately after administration of any of these agents.

PATIENT CARE: At the first sign of life-threatening respiratory distress, an airway is established, the appropriate physician is notified, and oxygen is administered by non-rebreather mask. Venous access is established. Epinephrine is administered, and diphenhydramine and corticosteroids are administered per protocol. Drugs should be administered intravenously if the patient is unconscious or hypotensive, and subcutaneously or intramuscularly if the patient is conscious and normotensive. Airway patency is maintained, and the patient should be observed for early signs of laryngeal edema (e.g., stridor, hoarseness, and dyspnea). Endotracheal intubation or a surgical airway may be necessary. In addition to high-concentration oxygen for all patients in shock, cardiopulmonary resuscitation and defibrillation, as indicated, are initiated if the patient becomes pulseless. The patient is assessed for hypotension and shock; circulatory volume is maintained with prescribed volume expanders, and blood pressure is stabilized with prescribed vasopressors. Blood pressure, central venous pressure, and urinary output are monitored in the hospital setting. Once the initial emergency has subsided, prescribed drugs for long-term management and inhaled bronchodilators for bronchospasm may be considered. The patient is taught to identify and avoid common allergens and to recognize an allergic reaction. Sensitivity testing may be advised to help determine offending allergens. If a patient is unable to avoid exposure to allergens and requires medication, an emergency kit should be kept readily available. Typically, this contains epinephrine in an auto-injector and liquid diphenhydramine. Both patient and family are instructed in its use. The patient with known serious allergies should wear an identifying bracelet or carry a card in his/her wallet. Patients with food allergies should be advised to read labels and to ask about food preparation and content when eating out. Individuals with insect sting allergies should avoid wearing bright-colored clothing, scented cosmetics, hairsprays, or perfumes that attract insects and should use insect repellent and wear closed shoes outdoors.

anesthesia s. Shock due to an overdose of a general anesthetic. The anesthetic should be immediately withheld and oxygen, mechanical ventilation, and vapor drugs should be given.

cardiogenic s. Failure of the heart to pump an adequate supply of blood and

oxygen to body tissues. The most common cause of cardiogenic shock is acute myocardial infarction, but other causes include failure or stenosis of heart valves (e.g., aortic or mitral stenosis or regurgitation), cardiomyopathies, pericardial tamponade, and sustained cardiac rhythm disturbances, among others. Cardiogenic shock is often fatal; only about 20% of affected persons survive. Its incidence has declined as the care of patients with acute myocardial infarction has incorporated thrombolytic drugs and emergency angioplasties. SEE: *Nursing Diagnoses Appendix*.

PATIENT CARE: The patient is assessed for a history of any cardiac disorder that severely decreases left ventricular function, for anginal pain, dysrhythmias, reduced urinary output, respiratory effort and rate, blood pressure, pulse, dizziness, alterations in mental status, and perfusion of the skin. Signs of poor tissue perfusion include cold, pale, clammy skin; cyanosis; restlessness, mental confusion and obtundation; tachycardia; tachypnea; systolic blood pressure 30 mm Hg below baseline or below 80 mm Hg; and oliguria (urine output below 20 ml/hr). Heart sounds are auscultated for a gallop rhythm and murmurs, the lungs are checked for crackles and wheezes, and neck veins are assessed for distention.

Arterial blood gas values, electrolyte levels, cardiac rhythms, and hemodynamic values (pulmonary artery pressures, wedge pressures, and cardiac output) are monitored intensively. Echocardiography helps to determine left ventricular function and valve abnormalities. Treatment goals include enhancing cardiovascular status by increasing cardiac output, improving myocardial perfusion, and decreasing cardiac workload. Combinations of various cardiovascular drugs and mechanical assist techniques are used. Prescribed intravenous fluids are administered via a large-bore intravenous catheter (14 G to 18 G) according to hemodynamic patterns and urine output. Oxygen is administered by face mask or artificial airway to ensure adequate tissue oxygenation. Prescribed inotropic agents and vasopressors are administered and evaluated for desired effects and any adverse reactions.

Some patients will undergo emergent cardiac catheterization, coronary angioplasty, coronary stents, bypass surgery, or placement of intra-aortic balloon pumps, turbine pumps, or temporary or permanent ventricular assist devices. The ICU setting, special procedures, and equipment are explained to the patient and family to reduce their anxiety; a calm environment with as much privacy as possible and frequent rest

periods are provided; and frequent family visits are permitted. All invasive sites are assessed for infection and/or hematomas. When the patient's hemodynamic stability is restored, he/she is gradually weaned from supportive mechanical devices and drug therapies. The family is prepared for the possibility of a fatal outcome and assisted to find effective coping strategies.

compensated s. The early phase of shock in which the body's compensatory mechanisms (e.g., increased heart rate, vasoconstriction, increased respiratory rate) are able to maintain adequate perfusion to the brain and vital organs. Typically, the patient is normotensive in compensated shock.

decompensated s. The late phase of shock in which the body's compensatory mechanisms (e.g., increased heart rate, vasoconstriction, increased respiratory rate) are unable to maintain adequate perfusion to the brain and vital organs. Typically, the patient is hypotensive in decompensated shock.

deferred s. Shock occurring several hours to a day after an injury or illness. SYN: *secondary shock*.

distributive s. Shock in which there is a marked decrease in peripheral vascular resistance and consequent hypotension. Examples are septic shock, neurogenic shock, and anaphylactic shock.

electric s. Injury from electricity that varies according to type and strength of current and length and location of contact. Electric shocks range from trivial burns to complete charring and destruction of skin and injury to internal organs, including brain, lungs, kidneys, and heart. Approximately 1000 persons are electrocuted accidentally each year in the U.S., and 4000 persons are injured. Five percent of admissions to burn centers are related to electrical injury.

Whether or not an electric shock will cause death is influenced by the pathway the current takes through the body, the amount of current, and the skin resistance. Thus, a very small amount of electrical energy applied directly to the heart may be enough to stop it from beating or to trigger ventricular fibrillation.

SYMPTOMS: Burns, loss of consciousness, and/or cardiac arrest are symptoms of electrical injury.

FIRST AID: Rescuers of any electrical shock victim who is unconscious should immediately call for emergency assistance. SEE: *cardiopulmonary resuscitation; electrocution; lightning safety rules; shock*.

TREATMENT: The patient should be freed carefully from the current source by first shutting off the current. Pro-

longed support in a critical care unit may be needed.

endotoxic s. Septic shock due to release of endotoxins by gram-negative bacteria. Endotoxins are lipopolysaccharides in the cell walls that are released during both reproduction and destruction of the bacteria. They are potent stimulators of inflammation, activating macrophages, B lymphocytes, and cytokines and producing vasodilation, increased capillary permeability, and activation of the complement and coagulation cascades. SEE: *endotoxin; septic s.*

hemorrhagic s. Shock due to loss of blood. SEE: *Nursing Diagnoses Appendix*.

hypoglycemic s. Shock produced by extremely low blood sugars (e.g., less than 40 mg/dl), usually caused by an injection of an excessive amount of insulin, failure to eat after an insulin injection, or rarely by an insulin-secreting tumor of the pancreas. Insulin-related hypoglycemic shock may be intentionally induced in the treatment of certain psychiatric conditions. SYN: *insulin shock*. SEE: *hypoglycemia*.

PATIENT CARE: All unconscious patients should be treated for presumptive hypoglycemia with an injection of D₅₀. Once the patient is conscious, glucose is given by mouth to attain the desired glucose level. The rescue therapy is followed by a carbohydrate and protein snack to maintain the desired level.

The stabilized patient's immediate past history should be reviewed, looking for triggering factors. The patient and family can then be taught ways to avoid such situations in the future or to manage them before hypoglycemia again becomes this serious. If insulin levels need to be adjusted, the patient's preprandial glucose levels for the preceding 24 hr must be reviewed. The patient and family are assisted in processing the event. Their treatment actions are given positive reinforcement, correcting any errors such as inability to recognize early symptoms of insulin shock, overcorrection of insulin deficiency, or use of food products that are absorbed too slowly.

hypovolemic s. Shock occurring when there is an insufficient amount of fluid in the circulatory system. Usually this is due to bleeding, diarrhea, or vomiting. SYN: *oligemic shock*.

insulin s. Hypoglycemic s. SEE: *Nursing Diagnoses Appendix*.

irreversible s. Shock of such intensity that even heroic therapy cannot prevent death.

neurogenic s. A form of distributive shock due to decreased peripheral vascular resistance. Damage to either the brain or the spinal cord inhibits transmission of neural stimuli to the arteries

and arterioles, which reduces vasomotor tone. The decreased peripheral resistance results in vasodilation and hypotension; cardiac output diminishes due to the altered distribution of blood volume.

obstructive s. Circulatory collapse caused by conditions that block the flow of blood into or out of the heart, such as cardiac tamponade, cardiac tumors, massive pulmonary embolism, or tension pneumothorax. Obstructive shock is characterized by very low cardiac output and increased systemic vascular resistance.

oligemic s. Hypovolemic s.

protein s. Shock reaction resulting from parental administration of a protein.

psychogenic s. Shock due to emotional stress or to seeing an injury or accident. SEE: *psychic s.*

secondary s. Deferred s.

septic s. Hypotension and inadequate blood flow to organs, as the result of sepsis (the presence of pathogens in the bloodstream). The most common organisms are gram-negative and gram-positive bacteria, but fungi and other organisms may also be responsible. SEE: *sepsis.*

ETIOLOGY: Organisms and released endotoxins or exotoxins initiate a systemic inflammatory response. Chemical mediators of inflammation and the cell-mediated immune response (esp. tumor necrosis factor and interleukin 1) cause the physiological changes to septic shock. Initially, vasodilation, increased capillary permeability, and movement of plasma out of blood vessels produce hypovolemia and hypotension. Compensatory vasoconstriction occurs in an effort to maintain blood flow to vital organs. As sepsis progresses, secondary inflammatory mediators are released, increasing vascular endothelial damage.

Selective vasoconstriction produces tissue hypoxia and single or multiple organ dysfunction. Tissue hypoxia is increased by abnormal stimulation of the coagulation and kinin cascades in the capillaries, which produce microthrombi. Within the lung, damage to the capillary endothelium may cause adult respiratory distress syndrome. Septic shock often progresses to multiple organ dysfunction syndrome (MODS), which is the most common cause of death in surgical intensive care units.

SYMPTOMS: Confusion and other alterations of consciousness are common symptoms. Signs include hypotension, fever, tachypnea, tachycardia, decreased urinary output, and cold, clammy skin. Laboratory studies reveal acidosis and, sometimes, renal failure or coagulopathies.

TREATMENT: Empiric therapy with an extended-spectrum penicillin (e.g., ticarcillin/clavulanate, piperacillin/tazobactam) or third-generation cephalosporin (e.g., ceftriaxone), plus clindamycin or metronidazole, provide antibiotic coverage until an organism from the primary site of infection is positively identified. Intravenous resuscitation and if necessary, vasopressors such as dopamine or norepinephrine are used to stabilize blood pressure. Activated drotrecogin alfa, a recombinant form of human activated protein C (Xigris) is occasionally effective. Oxygen and other supportive interventions are used to minimize organ damage. Maintaining blood glucose levels between 80 and 110 mg/dl improves chances of survival significantly. Use of corticosteroids is not supported by research.

PATIENT CARE: Intensive care measures are instituted to monitor blood pressure, fluid and electrolyte balance, renal function, and changes in neurological status. Assessment of progressive agitation or confusion should emphasize the possibility of hypoxia. Routine measures to reduce the risk of decubitus ulcers, muscle atrophy, and contractures are needed. Repeated teaching is necessary for family members to understand the severity of the infection, the purpose of interventions, signs of improvement, and the possibility of death.

spinal s. Immediate flaccid paralysis and loss of all sensation and reflex activity below the level of injury in acute transverse spinal cord injury. Arterial hypotension may be present in this condition.

surgical s. Shock following operations and including traumatic shock. SEE: *traumatic s.*

traumatic s. Shock due to injury or surgery. In the abdomen, it may result from hemorrhage and/or peritonitis secondary to a disrupted or perforated viscus. Additional causes of traumatic shock include the following:

Cerebral injury: Shock from concussion of the brain secondary to cranial contusion or fracture or spontaneous hemorrhage. The shock may be evident immediately or later due to edema or delayed intracranial hemorrhage. **Chemical injury:** Shock due to physiological response to tissue injury, such as fluid mobilization, toxicity of the agent, and reflexes induced by pain due to the effect of chemicals, esp. corrosives. **Crushing injury:** Shock caused by disruption of soft tissue with release of myoglobulins, hemorrhage, and so forth, generally proportional to the extent of the injury. **Fracture (esp. open fracture):** Shock due to blood loss, fat embolism, and the physiological effects

of pain. **Heart damage:** Shock caused by myocardial infarction, myocarditis, pericarditis, pericardial tamponade, or direct trauma with ensuing cardiovascular effects. **Inflammation:** Shock caused by severe sepsis, for example, peritonitis due to release of toxins affecting cardiovascular function and significant fluid mobilization. **Intestinal obstruction:** Shock caused by respiratory compromise due to distention, fluid mobilization, release of bacterial toxins, and pain. **Nerve injury:** Shock caused by injury to the area controlling respirations (e.g., high cervical cord injury) or to highly sensitive parts, such as the testicle, solar plexus, eye, and urethra, or secondary to cardiovascular reflexes stimulated by pain. **Operations:** Shock that may occur even after minor operations and paracentesis or catheterization due to rapid escape of fluids resulting in abrupt alteration of intra-abdominal pressure dynamics and hemorrhage. **Perforation or rupture of viscera:** Shock resulting from acute pneumothorax, ruptured aneurysm, perforated peptic ulcer, perforation of appendical abscess or colonic diverticulum, or ectopic pregnancy. **Strangulation:** Shock resulting from strangulated hernia, intussusception, or volvulus. **Thermal injury:** Shock caused by burn, frostbite, or heat exhaustion secondary to fluid mobilization due to the physiological effects of pain. **Torsion of viscera:** Shock caused by torsion of an ovary or a testicle secondary to the physiological effects of pain.

shockable rhythm In emergency cardiac care, any of the following cardiac rhythm disturbances: ventricular fibrillation, pulseless ventricular tachycardia or some poorly tolerated supraventricular tachycardias (e.g., some instances of rapid atrial fibrillation, atrial flutter, or AV nodal re-entrant tachycardia). By contrast, asystole, pulseless electrical activity, heart blocks, and the bradycardias are not shockable. Defibrillation or cardioversion of these latter rhythms may result in injury to the patient.

shock dose In cardioversion and defibrillation, the energy in joules selected to terminate an abnormal heart rhythm.

shock therapy, shock treatment Electroconvulsive therapy.

shoemaker's cramp A spasm of the muscles of the hand and arm, esp. after repetitive use.

short bowel syndrome Inadequate absorption of ingested nutrients (esp. vitamin B₁₂, macronutrients, sodium, and magnesium) resulting from a surgical procedure in which a considerable length of the intestinal tract has been removed or bypassed. Aggressive enteral nutrition or creation of an antiper-

istaltic segment in the remaining intestine may replace the need for partial or total parenteral nutrition in the management of this syndrome. Transplantation of the small intestine would be ideal, but as yet has limited application. SEE: *total parenteral nutrition*.

shortening 1. Loss of bone length after a fracture, as a result of malunion or pronounced bony angulation. **2.** A decrease in the length of a contracting muscle fiber.

shortness of breath Breathlessness.

shortsightedness (short'sit/'ēd-nēs) Myopia.

short stay A brief hospitalization for observation, for example, after a simple surgery, a biopsy, or a diagnostic study. The time spent in the hospital is typically limited to a few hours.

short-stay unit A ward or clinic used to manage patients requiring a short stay.

sho-saiko-to ABBR: SST. A traditional Chinese and Japanese herbal mixture used to treat chronic hepatitis and other illnesses.

shot A colloquial term for an injection.

shoulder (shōl'dēr) [AS. *sculdor*] The region of the proximal humerus, clavicle, and scapula; a part of the shoulder girdle complex. SEE: *scapula*.

adhesive capsulitis of s. A condition that causes shoulder pain, with restricted movement even though there is no obvious intrinsic shoulder disease. This may follow bursitis or tendonitis of the shoulder or may be associated with systemic conditions such as chronic pulmonary disease, myocardial infarction, or diabetes mellitus. Prolonged immobility of the arm favors development of adhesive capsulitis. The condition is more common in women after age 50. It may resolve spontaneously 12 to 18 months after onset or may result in permanent restriction of movement. Treatment includes injection of glucocorticoids; use of nonsteroidal anti-inflammatory agents and physical therapy may provide symptomatic relief; early range-of-motion exercises following an injury may prevent development of the disease; and manipulation of the shoulder while the patient is anesthetized may be of benefit. SYN: *frozen shoulder; pericapsulitis*.

dislocation of s. Displacement of the head of the humerus beyond the boundaries of the glenoid fossa. SEE: *Bankart lesion; Hill-Sachs lesion*.

ETIOLOGY: The most common cause is from trauma with the arm in external rotation with abduction, causing the head of the humerus to sublux anteriorly; a posterior subluxation may occur from a fall on an outstretched arm. An inferior dislocation may occur from poor muscle tone as with hemiplegia and from the weight of the arm pulling the

humerus downward. Anterior glenohumeral dislocations are common among athletes, esp. football players.

SIGNS: A patient with a dislocated shoulder usually has a hollow in place of the normal bulge of the shoulder, as well as a slight depression at the outer end of the clavicle. Glenohumeral range of motion is restricted and such patients often cannot touch their opposite shoulder with the hand of the involved arm. Both shoulders should always be compared for symmetry. Vital signs are assessed to provide baseline data. The patient is assessed for pain, and analgesia prescribed and provided as needed.

TREATMENT/FIRST AID: Radiographs and/or MRI are needed to determine the type of dislocation and the presence of any fracture. If no fractures are present, one of several maneuvers can be used to reduce the humerus into the glenoid.

PATIENT CARE: Because of the potential damage to neurovascular structures as they cross the glenohumeral joint line, the vascular and neurological status of the arm and hand must be assessed. A decreased or diminished ulnar or radial pulse warrants immediate intervention and reduction of the dislocation. An anterior dislocation of the shoulder can be reduced, for example, with passive traction on the arm or by placing the patient in a supine position and medially displacing the scapula. A sling or other shoulder support is provided after reduction to limit shoulder mobility for the prescribed time, and activity is gradually resumed using a guided rehabilitation protocol. **SEE: illus.**



PASSIVE REDUCTION OF ANTERIOR SHOULDER DISLOCATION

frozen s. Adhesive capsulitis of s.
s. separation Acromioclavicular separation.

shoulder blade The scapula.

shoulder girdle syndrome Idiopathic brachial plexopathy.

shoulder-hand syndrome Reflex sympathetic dystrophy.

show (shō) [AS. *scewian*, to look at] The sanguiniferous discharge from the vagina during the first stage of labor or just preceding menstruation. Also called *bloody show*.

bloody s. Show.

show of force The recruitment of large numbers of powerful individuals to an emotionally escalating situation in an attempt to prevent violent action by an opponent.

shreds (shrēds) [AS. *screade*] Slender strands of mucus seen in freshly voided urine, indicative of inflammation of the urinary tract or associated organs.

shrink To reduce in size.

shudder [ME. *shuddren*] A temporary convulsive tremor resulting from fright, horror, or aversion.

shunt (shūnt) [ME. *shunten*, to avoid]

1. To turn away from; to divert. **2.** An anomalous passage or one artificially constructed to divert flow from one main route to another. **3.** An electric conductor connecting two points in a circuit to form a parallel circuit through which a portion of the current may pass.

anatomical s. A normal or abnormal direct connection between arterial and venous circulation. An example of a normal anatomical shunt is the bronchial and thebesian vein connection.

arteriovenous s. An abnormal connection between an artery and the venous system.

Blalock-Taussig s. **SEE: Blalock-Taussig shunt.**

cardiovascular s. An abnormal connection between the cavities of the heart or between the systemic and pulmonary vessels.

dialysis s. An arteriovenous shunt created for use during renal dialysis. **SEE: illus.**



DIALYSIS SHUNT

left-to-right s. The passage of blood from the left side of the heart to the right side through an abnormal opening (e.g., a septal defect).

physiological s. The route by which pulmonary blood perfuses unventilated alveoli. This process is caused by an imbalance between ventilation and perfusion.

pleuroperitoneal s. A conduit connecting the pleural space and the peritoneum, used to drain recurring pleural effusions, such as those that accumulate in patients with certain cancers in the chest. SYN: *Denver shunt*.

portacaval s. Surgical creation of a connection between the portal vein and the vena cava. SYN: *portacaval shunt*.

postcaval s. Portacaval s.

right-to-left s. The movement of blood or other body fluids backward through a shunt. The shunted blood has no opportunity to become oxygenated because of failure to pass through the lungs.



transjugular intrahepatic portosystemic s. ABBR: TIPS. A shunt that is inserted through the skin, jugular vein, and liver and then into the portal venous system to manage complications of portal hypertension, such as bleeding caused by esophageal varices or uncontrollable ascites. The shunt decreases pressure within the portal venous circulation (e.g., in patients with cirrhosis), bypassing the liver and allowing portal blood to flow directly into the vena cava. A common complication of the procedure is altered mental status, since blood that was previously detoxified by the liver is directed around it.

shunting A condition in which blood, by going through an abnormal pathway or bypass, does not travel its normal route. It may occur when an arteriovenous fistula forms or in congenital anomalies of the heart in which the blood passes from the right atrium or ventricle directly to the left atrium or ventricle respectively, through a defect in the wall (septum) that normally separates the atria and ventricles. SYN: *blood shunting*.

shuttered hospital A hospital that has been closed and is no longer in active, daily use. It may be reopened in times of crisis to care for the homeless, injured, or sick, esp. after a mass casualty incident.

shuttle (shüt'l) To transport an object back and forth; in cell biology or biochemistry, to carry a molecule repeatedly across a cell membrane.

shuttle vector A short DNA segment, such as may be found in a bacteriophage or a plasmid, that carries DNA between organisms of two different species.

shuttle walk test A test of aerobic power or exercise capacity in which a person is asked to walk back and forth between two points or around and around a

track, often incrementally increasing walking speed with each shuttle completion. The test has been used to assess respiratory function, cardiovascular reserve, fitness for surgery, or geriatric physical fitness. In a typical test the original shuttle speed is set between 0.6 and 6 km/hr and increased by 0.17 to 0.5 km/hr until the patient becomes fatigued or achieves 12 minutes of exercise.

Shy-Drager syndrome (shī'drā'gēr) [George Milton Shy, U.S. neurologist, 1919–1967; G. A. Drager, U.S. physician, 1917–1967] A rare neurodegenerative disease of middle-aged or elderly persons, marked by chronic orthostatic hypotension, muscular rigidity, slow initiation of body movement, urinary incontinence, bowel dysfunction, erectile dysfunction, episodic loss of consciousness, and cardiac arrhythmias. SYN: *multiple systems atrophy*.

shyness Timidity, esp. in an unfamiliar setting or when encountering strangers. It cannot be classed as abnormal unless it interferes with activities essential to employment or interpersonal relations. Pathological shyness, in which persons avoid all kinds of social interactions because of intense psychological distress, is known as social phobia.

SI *Système International*; International System of Measurement. SEE: SI Units Appendix.

Si Symbol for the element silicon.

SIADH *syndrome of inappropriate antidiuretic hormone*.

sialadenitis (sī'äl-äd"ë-nī'tis) [" + " + *itis*, inflammation] Inflammation of a salivary gland. SYN: *sialitis*.

sialadenosis (sī'äl-äd"ën-ō'sis) Painless enlargement of the salivary glands, occurring without findings that suggest salivary gland cancer, infection (sialadenitis), inflammation, or stone disease. It is most obvious in the parotid glands. Commonly associated conditions include alcoholic cirrhosis, breast feeding, diabetes mellitus, eating disorders, pregnancy, and malnutrition. SYN: *sialosis*.

sialagogue, sialogogue (sī-äl'ä-gög, sī-äl'ō-gög) [" + *agogos*, leading] 1. An agent increasing the flow of saliva. 2. Producing or promoting the secretion of saliva. SYN: *ptyalagogue*.

sialectasia, sialectasis (sī'äl-äk-tä'së-ä, sī'a-lëk'tä-sis) [" + *ektasis*, dilatation] Hypertrophy or swelling of the salivary glands.

sialemesis (sī'äl-ëm'ës-īs) [" + *emein*, to vomit] The vomiting of saliva or vomiting caused by an excessive secretion of saliva.

sialic (sī-äl'ik) Concerning or resembling saliva.

sialine (sī'ä-lin) [Gr. *sialon*, saliva] Concerning saliva.

sialism, sialismus (sī'āl-izm, sī-āl-iz'mūs) [" + *-ismos*, condition] Ptyalism.

sialitis (sī'ā-lit'tis) [" + *itis*, inflammation] Sialadenitis.

sialo-, sial- (sī'ā-lō) Combining forms meaning *saliva*.

sialoadenitis (sī'ā-lō-ād'ē-nī'tis) [" + *aden*, gland, + *itis*, inflammation] Sialadenitis.

sialoadenotomy (sī'ā-lō-ād'ē-nōt'ō-mē) [" + " + *tome*, incision] Incision of a salivary gland.

sialoaerophagy (sī'ā-lō-ēr'ōf'ā-jē) [" + *aer*, air, + *phagein*, to eat] Constant swallowing, thus taking saliva and air into the stomach.

sialoangiectasis (sī'ā-lō-ān'jē-ēk'tā-sīs) [Gr. *sialon*, saliva, + *angeion*, vessel, + *ektasis*, dilatation] Dilation of a salivary duct.

sialoangiography (sī'ā-lō-ān'jē-ōg'rā-fē) [" + " + *graphein*, to write] Sialography.

sialoangitis, sialoangiitis (sī'ā-lō-ān'jī'tis, -ān'jē-ī'tis) [" + " + *itis*, inflammation] Inflammation of the salivary ducts. SYN: *sialodochitis*.

sialocele (sī'ā-lō-sēl) [" + *kele*, tumor, swelling] Cyst or tumor of a salivary gland.

sialodochitis (sī'ā-lō-dō-kī'tis) [" + *doche*, receptacle, + *itis*, inflammation] Sialoangitis.

sialodochoplasty (sī'ā-lō-dō'kō-plās'tē) [" + " + *plassein*, to form] Plastic surgery of a salivary gland.

sialoductitis (sī'ā-lō-dūk-tī'tis) [" + L. *ductus*, duct, + Gr. *itis*, inflammation] Inflammation of Stensen's duct.

sialogenous (sī'ā-lōj'ē-nūs) [" + *genan*, to produce] Forming saliva.

sialogogic (sī'ā-lō-gōj'ik) Producing or promoting a secretion of saliva.

sialogram (sī-āl'ō-grām) [" + *gramma*, something written] A radiograph of the ductal system of a salivary gland. A radiopaque fluid is instilled into the major duct to determine the presence or absence of calcareous deposits or other pathological changes.

sialography (sī'ā-lōg'rā-fē) [" + *graphein*, to write] Radiography of the salivary glands and ducts after injection of a radiopaque contrast medium. SYN: *ptyalography*; *sialoangiography*.

sialolith (sī-āl'ō-lith) [" + *lithos*, stone] A salivary stone.

sialolithiasis (sī'ā-lō-lī-thī'ā-sīs) The presence of stones in the salivary ducts. SYN: *salivolithiasis*.

sialolithotomy (sī'ā-lō-lī-thōt'ō-mē) [Gr. *sialon*, saliva, + *lithos*, stone, + *tome*, incision] The removal of a stone from a salivary gland or duct.

sialorrhoea (sī'ā-lō-rē'ā) [" + *rhoia*, a flow] Ptyalism.

sialoschesis (sī'ā-lōs'kē-sīs) [" +

schesis, suppression] Suppression or retention of saliva.

sialosemeiology (sī'ā-lō-sē'mī-ōl'ō-jē) [" + *semeion*, sign, + *logos*, word, reason] Diagnosis based on examination of saliva.

sialosis (sī-ā-lō'sis) [" + *osis*, condition] Sialadenosis.

sialostenosis (sī'ā-lō-stē-nō'sis) [" + *stenosis*, act of narrowing] Closure of a salivary duct.

sialosyrinx (sī'ā-lō-sī'rīnks) [" + *syrinx*, a pipe] **1.** A fistula into the salivary gland. **2.** A syringe for washing out salivary ducts. **3.** A drainage tube for a salivary duct.

sialotic (sī'ā-lōt'ik) [Gr. *sialon*, saliva] Concerning the flow of saliva.

Siamese twins (sī-ā-mēz') [After Chang and Eng, conjoined Chinese twins in Siam, 1811-1874] A culturally insensitive term for congenitally united twins. In some cases, the individuals are joined in a small area and are capable of activity, but the extent of union may be so great that survival is impossible. Nevertheless, modern surgical techniques have made it possible to separate infants who in the past would not have been expected to survive. SEE: *twin*.

sib (sīb) [AS. *sibb*, kin] **1.** Sibling. **2.** A blood relative.

sibilant (sīb'i-lānt) [L. *sibilans*, hissing] Hissing or whistling, as a sound heard in certain abnormal lung conditions or in the formation of certain letters in speech, such as the letter "s."

sibilation (sīb'i-lā'shūn) A hissing sound made while speaking.

sibling (sīb'liŋ) [AS. *sibb*, kin, + *liŋ*, having the quality of] One of two or more children of the same parents; a brother or sister. SYN: *sib*.

half s. A half brother or sister.

sibship (sīb'ship) Brothers and sisters of a single family.

siccant (sik'ānt) [L. *siccus*, dry] Siccative.

siccative (sik'ā-tiv) [L. *siccativus*, drying] Drying or that which dries. SYN: *siccant*.

sicolabile (sik'ō-lā'bīl) [L. *siccus*, dry, + *labilis*, unstable] Altered or destroyed by drying.

siccostabile (sik'ō-stā'bīl) [" + *stabilis*, stable] Resistant to drying.

siccus (sik'ūs) [L.] Dry.

sick (sik) [AS *seoc*, ill] **1.** Not well. SYN: *ill*. **2.** Mentally ill or disturbed. **3.** Nauseated.

sick building syndrome Symptoms of illness experienced by occupants of or workers in high-rise apartment or office buildings, for which a definite cause has not been established. Many causes have been suggested for the syndrome, including poor indoor air quality, poor lighting, molds; and fungi.

sickling (sĭk'ling) The tendency of red blood cells to change from a biconcave to an arched shape when oxygen tensions are low. The deformity results from the polymerization of abnormal hemoglobin molecules, such as hemoglobin S. Sickled red blood cells clog small blood vessels, producing tissue ischemia or infarction. SEE: *sickle cell anemia*.

sickling test A test that measures the propensity of red blood cells to sickle under conditions of reduced oxygen tension. The test may be performed by adding sodium metabisulfite to a drop of blood and examining the blood smear microscopically. Hemoglobin electrophoresis is an alternative test for sickle cell disease.

sickness (sĭk'nĕs) [AS. *seoc*, ill] A state of being unwell. SYN: *illness*.

acute mountain s. ABBR: AMS. Altitude sickness.

altitude s. Symptoms such as alterations in consciousness, headache, and shortness of breath that occur on exposure to high altitudes (e.g. during aviation or mountaineering). SYN: *acute mountain sickness*. SEE: *bends*; *altitude hypoxia*.

balloon s. SEE: *altitude sickness*.

car s. Motion sickness.

milk s. Intoxication by fresh raw milk obtained from cows that have eaten snakeroot (*Eupatorium rugosum*). The illness is colloquially referred to as the "slows." SEE: *slows*; *snakeroot*.

motion s. A syndrome, marked primarily by nausea and/or vomiting, due to a conflict between the true vertical axis and the subjective or perceived vertical axis. Motion sickness is a common illness experienced by car, boat, plane, or space travelers. It is also sometimes felt during motion picture viewing. Susceptibility to motion sickness is greatest between the ages of 2 and 12; it lessens with age but can be provoked in most people if the inciting stimulus is strong enough.

TREATMENT: Antimotion sickness medications include diazepam, diphenhydramine, meclizine, and scopolamine. Some patients with motion sickness benefit by eating small quantities of food when they begin to feel ill.

serum s. An adverse (type III hypersensitivity) immune response following administration of foreign antigens, esp. antiserum obtained from horses or other animals. Animal serum was formerly used for passive immunization against some infectious diseases but now has very limited use in antitoxins, monoclonal antibodies, and antilymphocyte globulin. Serum sickness can also occur after administration of penicillins and other drugs. Antigen-antibody complexes form and deposit on the walls of small blood vessels, stimulating an in-

flammatory response that produces a pruritic rash, fever, joint pain and swelling, myalgias, and enlarged lymph nodes 7 to 14 days after exposure. Treatment consists of salicylates (such as aspirin) and antihistamines to minimize inflammation; corticosteroids may be given for severe symptoms. SEE: *Nursing Diagnoses Appendix*.

sleeping s. 1. Encephalitis lethargica.

2. Infection with the African trypanosome, *Trypanosoma brucei rhodesiense* or *gambiense*, a parasitic protozoan introduced into the blood by the bite of a tsetse fly. The disease is marked by fever, protracted lethargy, weakness, tremors, and wasting.

space s. A transient form of motion sickness occurring in space travelers. SEE: *motion s.*

sick sinus syndrome ABBR: SSS. Any of several electrocardiographical abnormalities caused by a malfunction of the sinoatrial node of the heart, in which there are episodes of tachycardia alternating with episodes of heart block or severely decreased heart rate, often with loss of consciousness. SYN: *tachybrady syndrome*; *tachycardia-bradycardia syndrome*. SEE: *Nursing Diagnoses Appendix*.

TREATMENT: A pacemaker should be inserted. Anticoagulant therapy may be required to prevent thromboembolism.

SICU *surgical intensive care unit*.

SID *Society for Investigative Dermatology*; *source-to-image receptor distance*.

side (sid) [AS. *side*] **1.** The left or right part of the trunk of the body. **2.** An outer portion considered as facing in a particular direction.

side effect An action or effect of a drug other than that desired. Commonly it is an undesirable effect such as nausea, headache, insomnia, rash, confusion, dizziness, or an unwanted drug-drug interaction.

side-lyer A device for positioning the patient with central nervous system dysfunction in a lateral recumbent position in order to reduce decerebrate posturing and counteract the effects of the tonic labyrinthine (supine) reflex.

side-lying position A lateral recumbent position in which the individual rests on the right or left side, usually with the knees slightly flexed. This position may be used in persons with mild forms of sleep apnea, in some patients with dysphagia, and in patients predisposed to sacral decubitus ulcers, among other conditions.

sidero- (sĭd'ĕr-ō) Combining form meaning *iron*.

sideroblast (sĭd'ĕr-ō-blăst") [Gr. *sideros*, iron, + *blastos*, germ] A ferritin-containing normoblast in the bone marrow. Sideroblasts constitute from 20% to 90% of normoblasts in the marrow. The fer-



ritin gives a positive Prussian-blue reaction, indicating the iron is ionized and not bound to the heme protein.

siderocyte (sīd'ēr-ō-sīt) [*"* + *kytos*, cell] A red blood cell containing iron in a form other than hematin.

siderofibrosis (sīd'ēr-ō-fī-brō'sīs) [*"* + *L. fibra*, fiber, + *Gr. osis*, condition] Fibrosis associated with iron deposits.

siderogenous (sīd'ēr-ōj'ē-nūs) [*"* + *gennan*, to produce] Producing or forming iron.

sideropenia (sīd'ēr-ō-pē'nē-ā) [*"* + *penia*, poverty] Iron deficiency in the blood. **sideropenic**, *adj.*

siderophil (sīd'ēr-ō-fīl) A cell that has an affinity for iron. **siderophilous**, *adj.*

siderophilin (sīd'ēr-ō-fīl'īn) [*Gr. sideros*, iron, + *philein*, to love] Any of several iron-binding proteins in the body, e.g., transferrin.

siderophore (sīd'ēr-ō-for) [*"* + *phoros*, bearing] **1.** A macrophage that contains hemosiderin. **2.** An iron-binding protein, esp. one used by disease-causing bacteria to obtain iron stores from the host.

siderosis (sīd'ēr-ō'sīs) [*"* + *osis*, condition] **1.** A form of pneumoconiosis resulting from inhalation of dust or fumes containing iron particles. SEE: *hemosiderosis*. **2.** The abnormal deposition or accumulation of iron in the blood or body tissues. **siderotic**, *adj.*

s. of the central nervous system A rare neurological condition marked by bilateral sensorineural hearing loss, often with gait disturbance, cognitive impairment, and myoclonus. Excessive quantities of hemosiderin are found in the leptomeninges and subpial regions of the brain.

hepatic s. Excessive deposition of iron in the liver, found in patients with cirrhosis and hemochromatosis.

occupational s. SYN: *siderosis (1)*.

urinary s. Hemosiderin granules in the urine.

siderosome (sīd'ēr-ō-sōm') [*"* + *soma*, body] A reticulocyte in which iron-containing granules are present.

SIDS *sudden infant death syndrome*.

SIECUS *Sex Information and Education Council of the U.S.*

siemens (sē'mēnz) A unit of conductance derived from SI units. It is the reciprocal of the resistance in ohms. SYN: *mho*.

sieve (sīv) A device consisting of a mesh with holes of uniform size. It is used to separate particles above a certain size from solutions or powders.

molecular s. A type of sieve in which the molecular material present in the gel or crystal will adsorb molecules of a certain kind and let others pass.

sievert (sē'vert) [Rolf Maximilian Sievert, Swedish radiologist, 1896–1966] ABBR: Sv. A unit of absorbed radiation

energy derived from SI units. One sievert is equal to 1 J/kg or 100 rem.

sig *signa*.

sig [AS. *sican*] **1.** A deep inspiration followed by a slow audible expiration. **2.** In respiratory and critical care medicine, a mechanically generated breath with a high set tidal volume used to inflate collapsed lung segments and improve ventilation and oxygenation.

sight (sīt) [AS. *siht*] **1.** The power or faculty of seeing. **2.** Range of sight. **3.** A thing or view seen. SYN: *vision*; *visual perception*.

blind s. The ability to see that occurs in persons who are blind because of a brain lesion rather than damage to the eye. It is manifested by their being able to reach for and track an object. These individuals apparently do not know they can see.

day s. Night blindness.

far s. Hyperopia.

near s. Myopia.

night s. Day blindness.

sighted guide technique A means of assisting a blind person's ambulation, e.g., through a cramped or difficult passage. A sighted person offers assistance and, if it is accepted, makes contact with the blind person by tapping him or her on the hand and offering an arm for support. The sighted person then walks just ahead of and to the side of the blind person to help avoid potential hazards.

sigma (sig'mā) **1.** The 18th letter, Σ or σ, in the Greek alphabet. **2.** In statistics, the symbol for standard deviation.

Sigma Theta Tau (sig'mā-thā'tā-tow') ABBR: STT. The international honor society of nursing, founded in 1922 by six students and one alumna of Indiana University Training School. There are 424 chapters in the U.S., Taiwan, Australia, Canada, and Korea. The national headquarters is at Indiana University in Indianapolis.

sigmatism (sig'mā-tīzm) [*Gr. sigma*, letter S, + *-ismos*, condition] Excessive or defective use of "s" sounds in speech. SEE: *sibilation*.

sigmoid (sig'moyd) [*Gr. sigmoides*] **1.** Shaped like the capital Greek letter sigma, Σ. **2.** Pert. to the sigmoid colon.

sigmoid colon The part of the colon that turns medially at the left iliac crest, between the descending colon and the rectum; shaped like the letter S.

sigmoidectomy (sig'moyd-ēk'tō-mē) [*"* + *ektome*, excision] Removal of all or part of the sigmoid colon.

sigmoiditis (sig'moyd-ī'tīs) [*"* + *itis*, inflammation] Inflammation of the sigmoid colon.

sigmoidopexy (sig-moy'dō-pēk'sē) [*"* + *pexis*, fixation] Fixation of the sigmoid colon by suturing it to the presacral fascia. SYN: *romanopexy*.

sigmoidproctostomy (sig-moy'dō-prōk-

tōs'tō-mē) [Gr. *sigmoeides*, shaped like Gr. letter S, + *proktos*, anus, + *stoma*, mouth] The establishment of an artificial passage by anastomosis of the sigmoid colon with the rectum.

sigmoidorectostomy (sīg-moy'dō-rēk-tōs'tō-mē) [r + L. *rectus*, straight, + Gr. *stoma*, mouth] Sigmoidoproctostomy.

sigmoidoscope (sīg-moy'dō-skōp) [r + *skopein*, to examine] A tubular speculum for examination of the sigmoid colon and the rectum.

flexible s. A sigmoidoscope that uses fiberoptics. This permits the tubular extension to flex, enabling the examiner to visualize a greater portion of the colon than would be possible with a rigid sigmoidoscope.

sigmoidoscopy (sīg'moy-dōs'kō-pē) [r + *skopein*, to examine] Use of a sigmoidoscope to inspect the sigmoid colon.

sigmoidosigmoidostomy (sīg-moy'dō-sīg-moy-dōs'tō-mē) [r + *sigmoeides*, sigmoid, + *stoma*, mouth] Surgical creation of a connection between two segments of the sigmoid colon.

sigmoidostomy (sīg-moyd-ōs'tō-mē) [r + *stoma*, mouth] Creation of an artificial anus in the sigmoid colon, that is, sigmoid colostomy.

sigmoidotomy (sīg-moyd-ōt'ō-mē) [r + *tome*, incision] Incision of the sigmoid.

sigmoidovesical (sīg-moy'dō-vēs'ī-kāl) [r + L. *vesica*, bladder] Concerning a pathological connection between the sigmoid colon and the urinary bladder secondary to malignancy, inflammatory bowel disease, or diverticulitis.

sign (sīn) [L. *signum*] **1.** Symbol or abbreviation, esp. one used in pharmacy. **2.** Any objective evidence or manifestation of an illness or disordered function of the body. Signs are apparent to observers, as opposed to symptoms, which may be obvious only to the patient. SEE: *symptom*. **3.** To use sign language to communicate.

air bronchogram s. Radiographic appearance of an air-filled bronchus as it passes through an area of increased atomic density as in pulmonary edema and pneumonia.

anterior drawer s. Anterior drawer test.

Auenbrugger's s. SEE: *Auenbrugger's sign*.

Aufrecht's s. SEE: *Aufrecht's sign*.

Babinski's s. SEE: *Babinski's sign*.

beaten-silver skull s. The thinned, irregular appearance of the skull, as seen on x-ray examination of children with obstructive hydrocephalus.

Cardarelli's s. SEE: *Cardarelli's sign*.

chandelier s. Intense pelvic and lower abdominal pain brought on by palpation of the cervix. The sign points

to the presence of pelvic inflammatory disease.

corona radiata s. Filaments extending outward from a radiographically visualized mass. The presence of such filaments suggests that the mass is growing centrifugally and therefore may be malignant.

hair collar s. In the newborn, a ring of long, dark, coarse hair surrounding a midline nodule on the scalp. This may indicate neural tube closure defect.

jersey finger s. The inability to flex the distal interphalangeal joint of a finger as the result of a rupture of the flexor digitorum profundus tendon. The patient is unable to make a fist.

jump s. During physical examination, an involuntary reaction to stimulation of a tender area or trigger point. This may take the form of wincing or sudden jerking of the part being examined, of adjacent areas, or even of the entire body. This sign should not be confused with the startle reaction seen in Jumping Frenchmen of Maine.

Levine s. Holding a clenched fist over the sternum, a characteristic gesture that individuals experiencing anginal chest pain use frequently.

naked facet s. The radiographical appearance of spinal facet joints that have been disrupted by flexion injuries to the thoracic or lumbar spine. CT scanning of the joints shows that the inferior facets of the upper vertebrae are not directly aligned above the superior facets of the lower vertebrae.

objective s. In physical diagnosis, a sign that can be seen, heard, measured, or felt by the diagnostician. Finding of such sign(s) can be used to confirm or deny the diagnostician's impressions of the disease suspected of being present. SYN: *physical sign*.

orbicular s. SEE: *wink*.

physical s. Objective sign.

Popeye s. A bulging of the body of the biceps brachii muscle that results from rupture of the muscle's tendon. It superficially resembles an exaggerated attempt to flex the biceps muscle.

positive s. of pregnancy Assessment findings present only during pregnancy: fetal heart tones, fetal movements felt by the examiner, and visualization by sonogram.

presumptive s. of pregnancy Signs and symptoms commonly associated with pregnancy that may be present in other conditions. SEE: *pregnancy*.

probable s. of pregnancy Objective assessment findings that strongly suggest but do not confirm pregnancy. SEE: *pregnancy*.

psaos s. Abdominal pain produced by extension of the hip. The sign indicates a retrocecal or retroperitoneal lesion.

- spinnaker sail s.** An outline of the thymus of a child by radiolucent lines. It is seen on chest x-ray examinations of children with pneumomediastinum.
- steeple s.** Narrowing of the column of subglottic air in the trachea, seen on anteroposterior radiographs of the neck in children with croup.
- sunset s.** Newborn assessment finding often associated with hydrocephaly; the newborn's eyes are open with the irises directed downward, resembling the sun setting below the horizon.
- vital s.** Those physical signs concerning functions essential to life (i.e., pulse, rate of respiration, blood pressure, and temperature). Some health care professionals consider a patient's level of pain to be a "fifth" vital sign, although this is not accepted by all parties. While all health care professionals agree that a patient's experience of pain is a critical feature of his or her adaptation to illness, the traditional vital signs are objectively measurable and verifiable, while the level of pain is considered by many to be experiential or subjective.
- signa** (sĭg'nā) [L.] ABBR: S or sig. A term used in writing prescriptions meaning to label the prescription according to the dose, route of administration, and frequency of medication.
- signal** Any form of communication that provides information. It is usually oral, written, visual, or electronic (i.e., transmitted by radio, telephone, television, laser, or optical fibers).
- cellular s.** A chemical released by cells and tissues to stimulate metabolic activities within those tissues or in other parts of the body. Neurotransmitters, hormones, peptides, cytokines, arachidonic acid derivatives, and other chemicals are all signaling molecules.
- s. void** A dark or blank space in a radiographic image of a fluid-filled structure. SEE: *filling defect*.
- signal-to-cut-off ratio** ABBR: S/co. A laboratory comparison of the optical density of a specimen taken from a patient to the optical density of the laboratory's positive control. In tests for antibodies to hepatitis C antibody, e.g., hepatitis C infection is not diagnosed unless a specific S/co is exceeded. Results that fall below the S/co can be found in noninfected patients and are considered to be false positive.
- signature** (sĭg'nā-tūr) [L. *signatura*, to mark] **1.** The part of a prescription giving instructions to the patient. **2.** The act of writing one's name on a document to certify its validity; the written name on the document.
- signer** (sĭ'nēr) A person who communicates using sign language.
- significant** (sĭg-nĭf'ĭ-kānt) Important or meaningful.
- significant other** A person with whom a patient has a close relationship, which may or may not include relatives or a spouse.
- signing** The use of sign language to communicate.
- sign language** Representing words by signs made with the position and movement of the fingers and hand. SEE: *American Sign Language*.
- sildenafil** (sĭl-dĕn'ā-fl) A phosphodiesterase type 5 inhibitor and anti-impotence agent, administered orally to treat erectile dysfunction.
- silencer** (sĭ'lĕn-sĕr) A sequence of base pairs in DNA that prevents the transcription of a gene.
- silent** Free from noise; mute; still.
- silent area** Any cortical area in the brain that on stimulation produces no detectable motor activity or sensory phenomenon, and in which a lesion may occur without producing detectable motor or sensory abnormalities.
- silent disease** A disease that produces no clinically obvious symptoms or signs. Examples include hypertension, many forms of cancer (including small lesions of the breast and prostate cancer), and hearing loss, which may be either not noticed or denied by the individual. Many diseases begin silently, becoming obvious only when they are advanced.
- silica** (sĭl'ĭ-kā) [L. *silex*, flint] SiO₂; silicon dioxide. SEE: *silicon*. **siliceous, siliceous** (sĭ-lĭsh'ūs), *adj.*
- silicate** (sĭl'ĭ-kāt) [L. *silicis*, flintlike] A salt of silicic acid.
- silicic** (sĭl'ĭs'ĭk) Pert. to silica or silicon.
- silicoanthracosis** (sĭl'ĭ-kō-ān'thrā-kō'sĭs) [L. *silex*, flint, + Gr. *anthrax*, coal, + *osis*, condition] Silicosis combined with anthracosis, in coal miners.
- silicofluoride** (sĭl'ĭ-kō-floo'ō-rĭ) A compound of silicon, fluorine, and the fluoride of a metal.
- silicon** (sĭl'ĭ-kōn) [L. *silex*, flint] SYMB: Si. A nonmetallic element found in the soil; atomic weight 28.086; atomic number 14; specific gravity 2.33. Silicon makes up approx. 25% of the earth's crust, being exceeded only by oxygen. It occurs in trace amounts in skeletal structures (bones and teeth). Silicon is commonly combined with oxygen to form silicon dioxide, SiO₂, which occurs in many forms, both crystalline and amorphous. In a pure state, it forms quartz or rock crystal. It is present in many abrasive materials and is the principal constituent of glass.
- silicone** (sĭl'ĭ-kōn") **1.** An organic compound in which all or part of carbon has been replaced by silicon. **2.** Any of a group of polymeric organic silicon compounds used in adhesives, lubricants, synthetic rubber, and prostheses.
- injectable s.** Medical-grade silicone used in the past for breast augmentation, and currently for short-term use in

retinal detachment and surgeries of the vitreous or the urethra. The more purified the silicone oils used, the better tolerated and the more biocompatible the implant application. Numerous prostheses are made of silicone and it is controversially used in breast implants. SEE: *breast implant*.

silicoideriosis (sīl'ī-kō-sīd'ēr-ō'sīs) [" + Gr. *sideros*, iron, + *osis*, condition] A type of pneumoconiosis in which the inhaled particles contain silicates and iron.

silicosis (sīl'ī-kō'sīs) [" + Gr. *osis*, condition] A form of pneumoconiosis resulting from inhalation of silica (quartz) dust, characterized by the formation of small discrete nodules. In advanced cases, a dense fibrosis and emphysema with impairment of respiratory function may develop.

silicotic (sīl'ī-kōt'īk) **1.** Relating to silicosis. **2.** One affected with silicosis.

siliquose (sīl'ī-kwōs) [L. *siliqua*, pod] Resembling a two-valve capsule or a pod.

siliquose desquamation Shedding of dried vesicles from the skin.

silofiller's disease, silo-filler's syndrome (sī'lō-fīl'ēr-z) A rare respiratory illness produced by exposure to nitrogen oxides released from fermenting organic matter in freshly filled, poorly ventilated farm silos. Silage gases irritate the mouth, nose, pharynx, bronchi, and lungs, interfering with oxygenation and gas exchange. Alveolar damage and hemorrhagic pulmonary edema may result; about 20% of affected persons die of the exposure. Delayed injury to the lungs, esp. emphysema or bronchiolitis obliterans, may occur long after the initial exposure to silage gases.

PREVENTION: No one should enter a silo until 7 to 10 days after it is filled. Good ventilation above the base of a silo should be maintained during the 7- to 10-day period. The area should be fenced in to prevent children or animals from straying into the space surrounding a silo. An exhaust fan should always be activated before a person enters a silo.

TREATMENT: Corticosteroids such as prednisone or methylprednisolone help prevent lung injury in patients exposed to silage gases.

silver (sīl'vēr) [AS. *siolfor*] SYMB: Ag. A white, soft, ductile, malleable metal, its salts being widely used in medicine for their caustic, astringent, and antiseptic effects. Its atomic weight is 107.870; atomic number is 47; and specific gravity is 10.5. In dentistry, silver is used in prosthetic devices, as an alloy with copper or mercury, as silver solder, and as tapering points to obliterate root canals in the endodontic treatment of teeth. SEE: *argyria*.

s. amalgam A colloquial term for dental amalgam.

s. chloride SYMB: AgCl. An insoluble salt of silver.

colloidal s. **1.** Silver preparations in which the particles of silver or silver proteinate are suspended in the solution rather than being dissolved in it. **2.** SEE: *colloidal silver*.

s. filling Dental amalgam.

s. halide The photosensitive crystals in a radiographic film emulsion that, when exposed to ionizing radiation and developed, form an image.

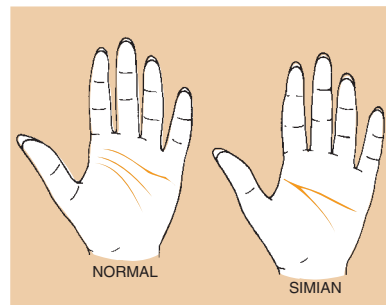
silverfish (sīl'vēr-fīsh') An insect, *Ctenolepisma longicaudata*, whose scales are often found in house dust, are antigenic, and may be a cause of childhood and adult perennial allergies and asthma. This house pest may be controlled with the use of insecticides.

Silybum marianum (sī-lē-būm') Milk thistle.

silymarin (sī-lē-mār'īn) Milk thistle.

simethicone (sī-mēth'ī-kōn) A mixture of liquid demethylpolysiloxanes that because of its antifoaming properties is used to treat intestinal gas.

simian crease A crease on the palm of the hand, so termed because of its similarity to the transverse flexion crease found in some monkeys. Normally the palm of the hand at birth contains several flexion creases, two of which are separate and approx. transverse. When these two appear to fuse and thus form a single transverse crease, a simian crease is present. The crease may be present in a variety of developmental abnormalities; including Down syndrome, rubella syndrome, Turner's syndrome, Klinefelter's syndrome, pseudohypoparathyroidism, and gonadal dysgenesis. SEE: *illus.*



SIMIAN AND NORMAL PALMAR CREASES

similia similibus curantur (sī-mīl'ē-ā sī-mīl'ī-būs kūr-ān'tūr) [L., likes are cured by likes] The homeopathic doctrine that a drug producing pathological symptoms in those who are well will cure such symptoms in persons with disease. **similimum**, *adj.*

Simmonds' disease (sīm'mōnds) [Mor-

- ris Simmonds, German physician, 1855–1925] Complete atrophy of the pituitary gland, producing loss of function of the thyroid, adrenals, and gonads, hair loss, hypotension, and cachexia. SYN: *pituitary cachexia*.
- Simon's position** (zē'móns) [Gustav Simon, German surgeon, 1824–1876] An exaggerated lithotomy position in which the hips are somewhat elevated and the thighs are strongly abducted. It is used in operations on the vagina. SYN: *Edebohls' position*.
- simple** (sím'pl) [L. *simplex*] **1.** Not complex; not compound. **2.** A medicinal plant.
- simple inflammation** Inflammation without pus or other inflammatory exudates.
- Simple Triage and Rapid Treatment** ABBR: START. A procedure for quickly classifying injured patients according to the severity of their injuries and for treating those who are most severely injured first.
- Sims' position** (símz) [James Marion Sims, U.S. gynecologist, 1813–1883] A semiprone position with the patient on the left side, right knee and thigh drawn well up, the left arm along the patient's back, and the chest inclined forward so that the patient rests on it. It is the position of choice for administering enemas because the sigmoid and descending colon are located on the left side of the body and fluid is readily accepted in this position. It is also used in curettage of the uterus, intrauterine irrigation after labor, flexible sigmoidoscopy, colonoscopy, rectal examination, and post-anesthesia recovery.
- simul** (sī'mül, sīm'ül) [L.] At once or at the same time; term used in signature of prescription.
- simulation** (sím-ū-lā'shün) [L. *simulatio*, imitation] **1.** Pretense of having a disease; feigning of illness. SEE: *malingerer*; *Munchausen syndrome*. **2.** The imitation of symptoms of one disease by another. **3.** A replica. **4.** An educational or technological model of an actual situation (such as cardiac arrest) that is used to train new students or to predict or estimate outcomes that may be obtainable in practice.
- simulator** (sím"ū-lā'tor) Any situation or device that imitates or recreates a condition or situation similar to one that might be encountered by a student or trainee. Simulations are used to prepare learners for social, occupational, or educational roles.
- Simulium** (sī-mū'lē-ūm) A genus of insects of the order Diptera that includes the black flies (buffalo gnats). The females are blood suckers.
- S. damnosum** A species that is the intermediate host of the filarial worm *Onchocerca volvulus*.
- S. venustum** A species common in North America.
- simultanagnosia** (sī'mül-tăn"äg-nō-zē-ä) The failure to perceive simultaneously all the elements of a scene.
- simultaneous communication** In American Sign Language, the combined use of speech, finger spelling, and signing to convey ideas to another person.
- SIMV** *synchronized intermittent mandatory ventilation*.
- simvastatin** (sím'vä-stä-tín) An HMG-CoA reductase inhibitor and lipid-lowering agent. It is administered orally, as an adjunct to dietary therapy, to manage primary hypercholesterolemia and mixed dyslipidemias. Trade name is Zocor.
- sin-, sino-** Combining forms meaning *sinus* or *cavity*.
- Sinapis** (sín-ä'pīs) [Gr. *sinapi*, mustard] A genus of plants commonly known as mustard plants.
- sincipital** (sín-síp'î-täl) [L. *sinciput*, half a head] Concerning the sinciput.
- sinciput** (sín'síp-üt) [L., half a head] **1.** The fore and upper part of the cranium. **2.** The upper half of the skull. SYN: *calvaria*.
- Sinding-Larsen Johansson disease** (sín'ding-lär'sën jō-hän'són) Anterior knee pain caused by persistent traction on an immature inferior patellar pole. There is point tenderness at the bone-tendon junction, and Osgood-Schlatter disease may be present. The adult equivalent of this disease is patellar tendinitis. This condition occurs commonly in boys 10 to 12 years of age who are actively involved in running and jumping sports. It resolves eventually but can be treated with activity modification, a patella-stabilizing knee brace, ice, and nonsteroidal anti-inflammatory drugs.
- sinew** (sín'ū) [AS. *sinu*] A tendon.
- sine wave grating** (sín) [L. *sinus*, curve, fold] A test pattern to assess visual contrast sensitivity.
- sing** [L., *singulorum*] Of each; used in writing prescriptions.
- single-blind** Pert. to a method, study, or clinical trial in which only the researcher knows what treatment or medication the subject receives. A single-blinded study attempts to eliminate subjective bias such as the placebo effect from the results. SEE: *blinded*; *double-blind*.
- singleton** (sīng'gl-tōn") One of something described, esp. a single infant rather than a twin.
- single-use device** A medical device used once for the care of a single patient and then immediately discarded.
- Singlair** (sīng'gū-lär') SEE: *montelukast*.
- singultation** (sīng'gül-tā'shün) [L. *singultus*, a hiccup] Hiccupping.

sinister (sīn-'is-'tēr) [L.] In anatomy, left; or present on the left side of the body.
sinistrad, sinistral (sīn-'is-'trād, sīn-'is-'trāl), *adj.*

sinistrality (sīn-'is-'trāl-'i-'tē) Left-handedness.

sinistro- (sīn-'is-'trō) Combining form meaning *left*.

sinistrocardia (sīn-'is-'trō-'kār-'dē-'ā) [L. *sinister*, left, + Gr. *kardia*, heart] Displacement of the heart to left of the medial line; the opposite of dextrocardia.

sinistroucularity (sīn-'is-'trōk-'ū-'lār-'i-'tē) Condition in which the left eye is dominant. **sinistroucular** (sīn-'is-'trōk-'ū-'lār), *adj.*

sinistroygration (sīn-'is-'trō-'jī-'rā-'shūn) [ʹ + Gr. *gyros*, a circle] Inclination to the left.

sinistromanual (sīn-'is-'trō-'mān-'ū-'āl) [ʹ + *manus*, hand] Left-handed.

sinistropedal (sīn-'is-'trōp-'ēd-'āl) [ʹ + *pes*, foot] Left-footed.

sinistrotorsion (sīn-'is-'trō-'tor-'shūn) [ʹ + *torsio*, a twisting] A twisting or turning toward the left.

sinistrous (sīn-'is-'trūs) Awkward, clumsy, unskilled; the opposite of dextrous.

sinoatrial (sīn-'ō-'ā-'trē-'āl) Pert. to the sinus venosus and atrium.

sinobronchitis (sīn-'nō-'brōng-'kī-'tis) [L. *sinus*, curve, + *bronchos*, windpipe, + Gr. *itis*, inflammation] Paranasal sinusitis with bronchitis.

sinogram (sīn-'nō-'grām) [L. *sinus*, curve, + Gr. *gramma*, something written] A radiograph of a sinus tract filled with a radiopaque contrast medium to determine the range and course of the tract.

sinter (sīn-'tēr) **1.** The calcium or silica deposits formed from water obtained from mineral springs. **2.** To reduce material to a solid form by heating without melting.

sinuous (sīn-'ū-'ūs) [L. *sinuosus*, winding] Winding; wavy; tortuous.

sinus (sīn-'nūs) *pl.* **sinuses, sinus** [L., curve, hollow] **1.** A cavity within a bone. **2.** A dilated channel for venous blood. **3.** A canal or passage leading to an abscess. **4.** Any cavity having a relatively narrow opening.

anal s. The saclike recesses behind the anal columns.

aortic s. 1. The area in the wall of the aortic arch that contains pressoreceptors innervated by the vagus nerves. These receptors detect changes in blood pressure and bring about reflex changes in heart rate and arterial diameter. **2.** A dilatation of the aorta opposite the segment of the semilunar valve.

basilar s. Transverse s. (2).

carotid s. The site at the base of the internal carotid artery of pressoreceptors innervated by the glossopharyngeal nerve. These receptors detect changes in blood pressure and bring about reflex

changes in heart rate and arterial diameter.

s. cavernosus A large sinus from the sphenoidal fissure to the apex of the petrous portion of the temporal bone.

circular s. A venous sinus around the pituitary gland, communicating on each side with the cavernous sinus.

coccygeal s. A sinus in the midline of the gluteal cleft just over the coccyx.

coronary s. of heart A vein in the transverse groove between the left cardiac atrium and ventricle.

cranial s. One of the large veins between the two layers of the cranial dura mater.

dermal s. A congenital sinus tract connecting the surface of the body with the spinal canal.

draining s. An abnormal passageway leading from inside the body to the outside. This is usually due to an infectious process.

dural venous s. One of several large endothelium-lined collecting channels into which veins of the brain and inner skull empty and which then empty into the internal jugular vein. These venous sinuses are found between the two layers (periosteal and meningeal) of the dura mater; their walls have no muscle, and they have no valves to give direction to the blood flow. The major venous sinuses in the skull are the superior sagittal, inferior sagittal, straight, transverse, and cavernous.

ethmoidal s. One of the air cavities in the ethmoid bone. SEE: *paranasal s.*

hair s. The sinus formed when hair is embedded in the skin and acts as a foreign body.

inferior petrosal s. A large venous sinus from the cavernous sinus, running along the lower margin of the petrous portion of the temporal bone.

inferior sagittal s. A venous sinus in the inferior margin of the falx cerebri.

lymph s. A pathway for lymph through a lymph node. SYN: *lymph channel*.

marginal s. 1. A large venous sinus around part of the margin of the placenta. **2.** One of the small bilateral venous sinuses of the dura mater at the edge of the foramen magnum. **3.** A venous sinus around a portion of the white pulp of the spleen.

maxillary s. A cavity in the maxillary bone communicating with the middle meatus of the nasal cavity. SYN: *antrum of Highmore*.

paranasal s. One of the air cavities in the frontal, maxillary, sphenoid, or ethmoid bones. The anterior group consists of the frontal, maxillary, and anterior ethmoids; the posterior group includes the posterior ethmoids and sphenoid. These sinuses develop embryologically from nasal cavities, are lined

with the same type of ciliated epithelium, are filled with air, and communicate with nasal cavities through their various ostia. They lighten the skull, being lighter than dense bone, and are resonating chambers for the voice. **SEE: *il-lus.***

pilonidal s. Pilonidal fistula.

pleural s. One of the spaces in the pleural sac along the lower and inferior portions of the lung that the lung does not occupy.

s. of the pulmonary trunk One of the dilations in the pulmonary trunk, across from a cusp of the pulmonary valve of the heart. The sinuses in the pulmonic trunk are smaller than those in the aorta.

s. rectus A venous sinus at the junction of the falx cerebri and the cerebellar tentorium. **SYN: *straight sinus.***

renal s. The area in the kidney composed of the renal pelvis, renal calices, vessels, nerves, and fatty tissue.

sigmoid s. In the venous circulation of the brain, the continuation, on both sides, of the transverse sinuses down along the posterior border of the petrous part of the temporal bone to the jugular foramen and jugular veins.

sphenoidal s. One of the air sinuses that occupy the body of the sphenoid bone and connect with the nasal cavity. **SEE: *paranasal s.***

s. of spleen A large-capacity venous channel in the spleen.

straight s. Sinus rectus.

superior petrosal s. A venous canal running in a groove in the petrous portion of the temporal bone.

superior sagittal s. A large venous sinus along the attached border of the falx cerebri from the crista galli to the internal occipital protuberance, where it joins either the right or left transverse sinuses or both. At its caudal end (at the back of the tentorium cerebelli), the superior sagittal sinus joins the straight sinus to form the confluence of the sinuses, from which the right and left transverse sinuses carry the accumulated venous blood toward the internal jugular veins.

transverse s. 1. A sinus that unites the two inferior petrosal sinuses of the cranium. **2.** Venous network in the dura over the basilar process of the occipital bone. **SYN: *basilar sinus.***

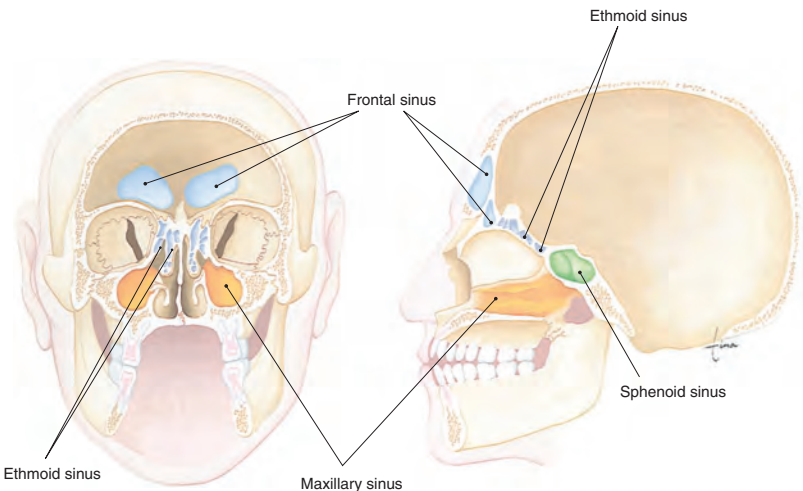
transverse s. of the dura mater One of the large, bilateral venous sinuses along the attached margin of the cerebellar tentorium. They receive the superior sagittal and straight sinuses and drain into the sigmoid sinuses and then into the jugular veins.

transverse s. of the pericardium A channel posterior to the aorta and the pulmonary trunk but in front of the atria.

urogenital s. 1. A duct into which, in the embryo, the wolffian ducts and bladder empty; it opens into the cloaca. **2.** The common receptacle of the genital and urinary ducts.

uterine s. One of the venous channels in the walls of the uterus during pregnancy.

uteroplacental s. One of the slanting venous channels from the placenta serving to convey the maternal blood from



PARANASAL SINUS

(A) anterior, (B) left lateral

the intervillous lacunae back into the uterine veins.

s. venosus In the embryo, a large venous sac just caudal to the developing heart that receives the blood from the umbilical, vitelline, and common cardinal veins. At first, this sac is a separate chamber emptying into the primitive right atrium, but eventually the left part of the sinus venosus forms the coronary sinus (emptying into the right atrium).

sinus-, sinuso- Combining forms meaning *sinus* or *cavity*.

sinus histiocytosis with massive lymphadenopathy Rosai-Dorfman disease.

sinusitis (sī-nūs-ī'tis) [L. *sinus*, curve, hollow, + Gr. *itis*, inflammation] Inflammation of a sinus, esp. a paranasal sinus. It may be caused by various agents, including viruses, bacteria, or allergy. Predisposing factors include inadequate drainage, which may result from presence of polyps, enlarged turbinates, or a deviated septum; chronic rhinitis; general debility; or dental abscess in maxillary bone.

acute suppurative s. Purulent inflammation with pain over the facial sinuses, often accompanied by fever, chills, and headache.

TREATMENT: Therapy is conservative. Shrinkage in the nasal mucosa is useful to facilitate ventilation and drainage of the sinuses. The patient should rest, force fluids, take decongestants, and apply hot packs. If inflammation is due to bacterial infection, antibiotic therapy is indicated.

allergic fungal s. Chronic nasal obstruction with symptoms that include a runny nose and postnasal discharge that is caused by allergies to soil-based fungi (such as *Curvularia* or *Alternaria*). The condition is occasionally diagnosed in patients with an allergic history and nasal polyposis who have failed treatments for other sinus diseases. Tenacious mucus with a large number of eosinophils are often present.

chronic hyperplastic s. Polyps present in sinuses and nose and underlying osteitis of sinus walls.

TREATMENT: This condition is treated surgically. Conservative surgery involves the removal of polyps and intranasal opening into sinuses for adequate ventilation and drainage. Radical surgery would involve the complete removal of sinus mucosa through either the external or the intranasal route.

invasive fungal s. Sinus, ophthalmic, and cerebral invasion by opportunistic fungi. The disease usually occurs in immunosuppressed patients (such as diabetic or neutropenic patients) and is frequently fatal despite aggressive medical and surgical therapies. *Aspergillus*, *Mu-*

cor, and *Rhizopus* are the most commonly implicated causes.

sinusoid (sī'nūs-oyd) [n° + Gr. *eidōs*, form, shape] **1.** Resembling a sinus. **2.** A large, permeable capillary, often lined with macrophages, found in organs such as the liver, spleen, bone marrow, and adrenal glands. Their permeability allows cells or large proteins to easily enter or leave the blood. **sinusoidal, adj.**

sinusoidal current Alternating induced electric current, the two strokes of which are equal.

sinusoidal pattern An abnormal fetal heart rate finding in which the monitor records a consistent rhythmic, uniform, undulating wave. Although the number of beats per minute is within normal limits and the recording shows long-term variability, beat-to-beat variability is absent and no accelerations in heart rate occur with fetal movement.

sinusotomy (sī-nūs-ōt'ō-mē) [n° + Gr. *tōmē*, incision] The incising of a sinus.

SiO₂ Silicon dioxide.

sip (sĭp) [ME. *sippen*] **1.** To take a small quantity of liquid or nourishment into the mouth. **2.** A small quantity of liquid, i.e., the amount that can be taken into the mouth with gentle suction.

sip and puff A method of controlling assistive technology devices by blowing or sucking through a tube.

siphon (sī'fūn) [Gr. *siphon*, tube] A tube bent at an angle to form two unequal lengths for transferring liquids from one container to another by atmospheric pressure. One container must be higher than the other for this to work.

siphonage (sī'fūn-ij) Use of a siphon to drain a body cavity such as the stomach or bladder.

Siphonaptera (sī'fō-nāp'tēr-ā) [n° + *apteros*, wingless] An order of insects commonly called fleas. They are wingless, undergo complete metamorphosis, and have piercing and sucking mouth parts. The body is compressed laterally, and the legs are adapted for leaping. Fleas feed on the blood of birds and mammals. They transmit the causative organisms of several diseases (bubonic plague, endemic or murine typhus, and tularemia) and are also the intermediate hosts of certain tapeworms. SEE: *flea*.

Sipple syndrome (sĭp'l) [John H. Sipple, U.S. physician, b. 1930] Multiple endocrine neoplasia type IIA. SEE: *multiple endocrine neoplasia*.

siRNA *short, interfering ribonucleic acid*.

sirtuins (sir'too-in) Any of a class of proteins that deacetylate histones and keep chromatin from being transcribed. Also known as Sir proteins, members of this class of chemicals may contribute to longevity.

-sis [Gr.] Suffix meaning *condition, state*.

Depending on the preceding vowel, it may appear in the form of *-asis*, *-esis*, *-iasis*, or *-osis*.

sister A term used by the British for *nurse*, esp. a senior or head nurse.

Sister Mary Joseph nodule A hard, periumbilical lymph node sometimes present when pelvic or gastrointestinal tumors have metastasized.

site [L. *situs*, place] Position or location.
active s. The reactive portion of an enzyme, in which the substrate molecules fit and form temporary bonds.

antibody combining s. SEE: *antibody combining site*.

antigen binding s. Antigenic determinant.

binding s. The particular location on a cell surface or chemical to which other chemicals bind or attach.

cleavage s. The location on a polypeptide molecule where peptide bonds are broken down by hydrolysis.

exit s. The location on the skin where an implanted device (e.g., a surgical drain) leaves the body.

implant s. The location in a jaw bone where a dental prosthesis will be or is seated.

port s. The location on the skin where a laparoscope or other device (e.g., subcutaneously implanted medicine reservoir) is inserted into the body.

primary s. The tissue of origin of a metastatic tumor.

receptor s. The particular component of a cell surface that has the ability to react with certain molecules, such as proteins or a virus.

splice s. The location on a strand of messenger RNA where the molecule can be cut and reannealed during the regulation of protein synthesis by cells.

site-specific Properties of cellular receptors that vary with their body location or milieu.

sitio-, sito- Combining form meaning *bread, made from grain, food*.

sitosterols (sī-tōs'tēr-ōls) A group of similar organic compounds that occur in plants. They contain the steroid nucleus, perhydrocyclopentanophenanthrene.

sitotherapy (sī'tō-thēr'ā-pē) [" + *therapeia*, treatment] The therapeutic use of diet and nutrition.

sitotoxin (sī'tō-tōk'sin) [" + *toxikon*, poison] Any poison developed in food, esp. one produced by bacteria growing in a cereal or grain product.

sitotoxism (sī'tō-tōks'izm) [" + " + *-ismos*, condition] Poisoning by vegetable foods infested with molds or bacteria. SEE: *aflatoxin*; *food poisoning*.

situation 1. A set of circumstances.
2. The location of an entity in relation to other objects.

situs (sī'tūs) [L.] A position.
s. inversus The abnormal relation

and displacement of viscera to the opposite side of the body.

s. inversus viscerum A less common term for *situs inversus*.

SI units Any of the units specified by the International System of Units adopted by the International Conference of Weights and Measures in 1960 and updated since then. SEE: tables; *International System of Units*; SI Units Appendix.

sixth disease An acute disease of infants, caused by herpesvirus 6. SYN: *exanthem subitum*; *Zahorsky disease*. SEE: *roseola infantum*.

size-up The assessment of the safety of a scene for rescuers and patients before proceeding with the initial patient assessment.

Sjögren's syndrome (shō'grēnz) ABBR: SS. An autoimmune disorder marked by decreased lacrimal and salivary secretions, resulting in dry eyes (keratoconjunctivitis sicca) and dry mouth (xerostomia). In 50% of patients it occurs alone; in the other 50% it is seen in conjunction with other autoimmune diseases, such as systemic lupus erythematosus, thyroiditis, scleroderma, and esp. rheumatoid arthritis. It occurs primarily in middle-aged women.

In Sjögren's syndrome, the lacrimal and salivary glands are destroyed by autoantibodies and T lymphocytes. Approx. 90% of patients have antiribonucleoprotein antibodies in the blood (anti-Ro or anti-La), which are considered diagnostic markers; approx. 75% also have rheumatoid factor, even if there is no evidence of rheumatoid arthritis. Patients with Sjögren's syndrome have a 40% to 60% increased risk of developing non-Hodgkin lymphoma, cancer of the lymph glands.

SYMPTOMS: The most common signs and symptoms are blurred vision, thick secretions, itching and burning of the eyes, decreased sense of taste, difficulty swallowing, and dry, cracked oral mucous membranes. Enlarged parotid glands, dry nasal membranes, bronchi-

International System of Units (SI Units)

Basic Quantity	Basic Unit	Symbol
Length	meter	m
Mass	kilogram	kg
Time	second	s
Electric current	ampere	A
Thermodynamic temperature	kelvin	K
Luminous intensity	candela	cd
Amount of substance	mole	mol

Prefixes and Their Symbols Used to Designate Decimal Multiples and Submultiples in SI Units

Prefix	Symbol		Factor
tera	T	10 ¹²	1 000 000 000 000
giga	G	10 ⁹	1 000 000 000
mega	M	10 ⁶	1 000 000
kilo	k	10 ³	1 000
hecto	h	10 ²	100
deka	da	10 ¹	10
deci	d	10 ⁻¹	0.1
centi	c	10 ⁻²	0.01
milli	m	10 ⁻³	0.001
micro	μ	10 ⁻⁶	0.000 001
nano	n	10 ⁻⁹	0.000 000 001
pico	p	10 ⁻¹²	0.000 000 000 001
femto	f	10 ⁻¹⁵	0.000 000 000 000 001
atto	a	10 ⁻¹⁸	0.000 000 000 000 000 001

tis and pneumonitis, synovitis, vaginal dryness, superimposed *Candida* infections, and vasculitis also may occur. Patients usually have anemia, leukopenia, and an elevated erythrocyte sedimentation rate.

TREATMENT: Sjögren's syndrome can be controlled with symptomatic treatment. Careful oral hygiene, using fluoride toothpaste and mouthwash as well as chlorhexidine rinses, and routine dental examinations are essential to minimize oral infection and tooth decay. Sugarless gum or candies, frequent sips of water, and pilocarpine may help relieve the xerostomia; artificial saliva is not tolerated by most patients. Artificial tears are effective for dry eyes, and glasses are recommended to block the wind when the patient is outside. Clinical manifestations of concurrent autoimmune diseases are treated symptomatically.

skateboard (skāt'bord) **1.** A therapeutic device used for upper or lower extremity rehabilitation. It consists of a platform mounted on ball-bearing rollers. It assists the patient in making coordinated movements. **2.** A recreational device often used by children and adolescents, consisting of a long, narrow platform mounted on wheels. Skateboard use is often associated with high-energy trauma. Common injuries associated with the use of the device are fractures, traumatic brain injury, contusions, and lacerations.

skatol(e) (skāt'öl) [Gr. *skatos*, dung] C₉H₉N; beta-methyl indole; a malodorous, solid, heterocyclic nitrogen compound found in feces, formed by protein decomposition in the intestines and giving them their odor.

skatoxyl (skä-tök'sil) A derivative of skatole.

skein (skān) A continuous tangled thread.

skeletal (skēl'ĕ-tāl) [Gr. *skeleton*, a dried-up body] Pert. to the skeleton.

skeletal survey A radiographic study of the entire skeleton to look for evidence of occult fractures, multiple myeloma, metastatic tumor, or child abuse.

skeletal system The bony framework of the body. SEE: *skeleton*.

skeletal traction SEE: under *under traction*.

skeletization (skēl'ĕt-ĭ-zā'shūn) Excessive emaciation.

skeleto- Combining form meaning *skeleton*.

skeletogenous (skēl'ĕ-tōj'ĕ-nūs) [Gr. *skeleton*, a dried-up body, + *gennan*, to produce] Forming skeletal structures or tissues.

skeleton (skēl'ĕt-ōn) [Gr., a dried-up body] The bony framework of the body consisting of 206 bones: 80 axial or trunk and 126 of the limbs (appendicular). This number does not include teeth or sesamoid bones other than the patella. SEE: *illus.*; table.

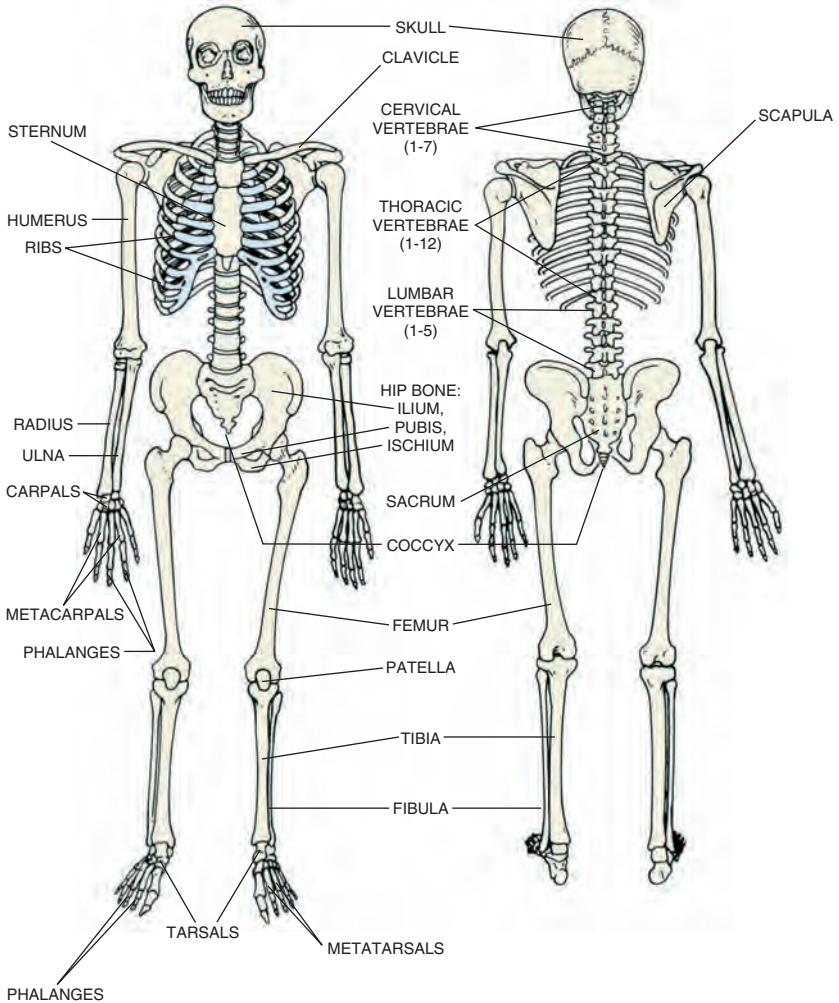
appendicular s. The bones that make up the shoulder girdle, upper extremities, pelvis, and lower extremities.

axial s. Bones of the head and trunk.

cartilaginous s. The part of the skeleton formed by cartilage; in the adult, the cartilage of the ribs and joints. Cartilage is more flexible and resistant to resorption due to pressure than bone.

Skene's duct One of the two slender ducts of Skene's glands that open on either side of the urethral orifice in women. SYN: *paraurethral duct*.

Skene's glands (skēns) [Alexander Johnston Chalmers Skene, Scot.-born U.S. gynecologist, 1837–1900] Glands lying just inside of and on the posterior area of the urethra in the female. If the margins of the urethra are drawn apart and the mucous membrane gently everted, the two small openings of Skene's tubules or glands, one on each



SKELETON

side of the floor of the urethra, become visible. Trauma frequently causes a gaping of the urethra and ectropion of the mucous membrane. In acute gonorrhoea, these glands are almost always infected. SYN: *paraurethral glands*.

skenitis (skē-nī'tis) [*Skene* + Gr. *itis*, inflammation] Inflammation of Skene's glands.

skew (skyū) [*ME. skewen*, to escape] Turned to one side; asymmetrical.

skew deviation A condition in which one eyeball is directed upward and outward, the other inward and downward.

skia- (skī'ā) [*Gr.*] Combining form meaning *shadow*.

skiascopy (skī-ās'kō-pē) 1. Retinoscopy.
2. Fluoroscopy.

skill Proficiency in a specific task.

savant s. Splinter skill.

splinter s. A precocious, highly developed behavior or talent that occurs in isolation, i.e. one that is not associated with other cognitive, manual, social, or verbal skills. Splinter skills are often found in children with autistic spectrum disorders. SYN: *savant skill*.

skilled attendant A person formally trained in the care of women during labor and delivery.

skill mix The varied human resources needed to accomplish a clinical task. To provide postoperative care of a cardiac surgery patient, e.g., a surgeon, anesthesiologist, critical care nurses, nursing aides, respiratory therapists, and

Bones of the Human Skeleton

Axial (80 bones)		Appendicular (126 bones)	
Head (29 bones)	Trunk (51 bones)	Upper Extremities (64 bones)	Lower Extremities (62 bones)
Cranial (8)	Vertebrae (26)	Arms and shoulders (10)	Legs and hips (10)
Frontal—1	Cervical—7	Clavicle—2	Innominate or hip bone (fusion of the ilium, ischium, and pubis)—2
Parietal—2	Thoracic—12	Scapula—2	Femur—2
Occipital—1	Lumbar—5	Humerus—2	Tibia—2
Temporal—2	Sacrum—1	Radius—2	Fibula—2
Sphenoid—1	Coccyx—1	Ulna—2	Patella (kneecap)—2
Ethmoid—1			
Facial (14)	Ribs (24)	Wrists (16)	Ankles (14)
Maxilla—2	True rib—14	Scaphoid—2	Talus—2
Mandible—1	False rib—6	Lunate—2	Calcaneus (heel bone)—2
Zygoma—2	Floating rib—4	Triquetrum—2	Navicular—2
Lacrimal—2		Pisiform—2	Cuboid—2
Nasal—2	Sternum (1)	Trapezium—2	Cuneiform, internal—2
Turbinate—2		Trapezoid—2	Cuneiform, middle—2
Vomer—1		Capitate—2	Cuneiform, external—2
Palatine—2		Hamate—2	
Hyoid (1)		Hands (38)	Feet (38)
Auditory ossicles (6)		Metacarpal 10	Metatarsal—10
Malleus—2		Phalanx (finger bones)—28	Phalanx (toe bones)—28
Incus—2			
Stapes—2			

other personnel must be assembled. A different level of care and a different allocation of health care human resources are needed to provide care to an outpatient with an upper respiratory infection. Assembling the appropriate staffing for health care services is a function that depends on issues such as the demands of the patient's illness, the specialization and availability of health care providers, the institution in which care is provided, and the available financial resources. In military medicine, a broad array of services is provided by medics; patients with similar injuries and illnesses in urban medical centers would likely have access to a wider variety of professionals, each with a more limited set of skills.

skimming In health care, the practice of a for-profit corporation entering the market, attracting the business of patients who can pay, and avoiding treating the indigent.

skin (skin) [Old Norse *skinn*] The organ that forms the outer surface of the body. It shields the body against infection, dehydration, and temperature changes; provides sensory information about the environment; manufactures vitamin D; and excretes salts and small amounts of urea.

Skin consists of two major divisions: the epidermis and the dermis. Depending on its location and local function, skin varies in terms of its thickness, strength, presence of hair, nails, or glands, pigmentation, vascularity, nerve supply, and keratinization. Skin may be classified as thin and hairy or thick and hairless (glabrous). Thin hairy skin covers most of the body. Glabrous skin covers the surface of the palms of the hands, soles of the feet, and flexor surfaces of the digits. **SEE: illus.; hair for illus; burn; dermatitis; dermis; eczema; epidermis; rash.**

alligator s. Severe scaling of the skin with formation of thick plates resembling the hide of an alligator. **SEE: ichthyosis.**

artificial s. Human s. equivalent.

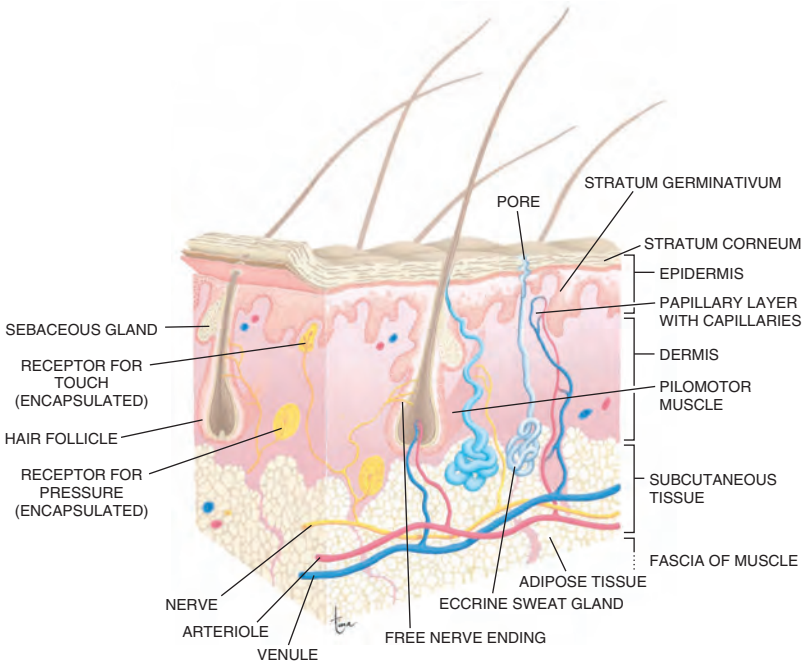
bronzed s. A condition seen in chronic adrenocortical insufficiency (Addison's disease) and in hemochromatosis, some cases of diabetes mellitus, and cirrhosis of the liver.

deciduous s. Keratolysis.

elastic s. Ehlers-Danlos syndrome.

glabrous s. Skin that does not contain hair follicles, such as that over the palms and soles.

glossy s. Shiny appearance of the skin due to atrophy or injury to nerves.



SKIN SECTION

hidebound s. Scleroderma.

human s. equivalent Graft made of living human skin grown in a laboratory and used, e.g., to treat leg ulcers in patients with peripheral vascular disease or diabetes mellitus. The graft bonds with healthy tissue in a wound from which necrotic tissue has been removed, improving healing. It is grown from foreskin removed from neonates but also contains bovine (cow) proteins, limiting its use to those with no allergy to these proteins. SYN: *artificial skin*; *tissue-engineered skin*.

loose s. Hypertrophy of the skin.

parchment s. Atrophy of the skin with stretching.

photoaged s. Skin changes caused by chronic sun exposure. This condition is prevented by avoiding suntanning and sunburning and has been treated with topical tretinoin and chemical peels. SYN: *photodamaged skin*.

photodamaged s. Photoaged s.

piebald s. Vitiligo.

scarf s. The cuticle, epidermis; the outer layer of the skin.

sun-damaged s. Photoaged s.

tissue-engineered s. Human s. equivalent.

true s. The dermis or corium, the inner layer of the skin.

skin, chemical peel of The use of chemicals to erode superficial skin layers;

used to treat acne, wrinkles, and blemishes. SEE: *dermabrasion*.



This technique can cause skin injury. It must be done under the supervision of a person skilled in this type of therapy.

skin, tenting of A delay in the return of pinched skin to a flat position, after it has been tugged, elevated above the rest of the epidermis, and released. The return becomes progressively slower as the skin ages and subcutaneous elastic tissue decreases. It is also slowed in dehydrated persons. SEE: *dehydration*.

skin autofluorescence The abnormal fluorescence of the skin of patients with either diabetes mellitus or excessive oxidative stress when exposed to ultraviolet light. It results from the accumulation of advanced glycosylation end products (AGE) in tissues. AGE accumulation has been linked to cardiovascular diseases, impairments in glucose tolerance, and renal failure.

skin cancer A broad term that includes basal cell carcinomas, squamous cell carcinomas, and melanomas. Together, these skin cancers are the most common cancers in the U.S. They are all associated with excessive exposure to ultraviolet light (e.g., sun exposure). SEE:

basal cell carcinoma; squamous cell carcinoma; melanoma.

PATIENT CARE: According to U.S. Preventative Services Task Force (USPSTF), benefits from routine screening for skin cancers using a total body skin examination are unproven, even in high-risk patients.

skinfold tenderness Tenderness elicited by the examiner's rolling the skin and subcutaneous tissues over the upper border of the trapezius muscle. Normally, this produces minor discomfort, but in patients with nonarticular rheumatic disorders, rolling of the skin consistently produces pain.

skinfold thickness An anthropometric measurement used to evaluate nutritional status by estimating the amount of subcutaneous fat. Calibrated calipers are used to measure the thickness of a fold of skin at defined body sites that include upper arm or triceps, subscapular region, and upper abdomen.

skin integrity, impaired A state in which an individual has altered epidermis and/or dermis. SEE: *Nursing Diagnoses Appendix.*

skin integrity, impaired, risk for A state in which an individual's skin is at risk of being adversely altered. SEE: *Nursing Diagnoses Appendix.*

skin marking The application of nontoxic, temporary paints or dyes to the skin to provide landmarks (as in plastic surgery), to permit accurate alignment of wound edges at the time the skin is closed, or to align the treatment beam accurately during radiotherapy.

Skinner box (skīn'ēr) [Burrhus Frederic Skinner, U.S. psychologist, 1904–1990] A device used in experimental psychology in programmed learning. It is designed so that an animal that performs a desired behavior is rewarded, for example, by receiving food.

skin popping The subcutaneous injection of illicit drugs, a practice that may result in localized abscesses, limb cellulitis, fasciitis, sepsis, or death. Injection drug users who skin pop may be recognized by the presence of atrophied circular lesions on the skin, usually of the forearms.

skin test Any test in which a suspected allergen is applied to the skin. A variety of tests have been developed to detect the presence of IgE antibodies to specific substances. Cutaneous tests include the *scratch test*, in which a tiny amount of dilute allergen solution is placed on a 1-cm skin scratch created by a sterile needle, and the *prick* or *puncture test*, in which a drop of allergen solution is placed on the skin and a needle prick is made in the center of the drop. These tests are performed on the back or arm and are unlikely to produce systemic anaphylaxis. For an intradermal test, ap-

prox. .01 ml of dilute solution is injected into the skin on the arm using a tuberculin syringe with a 25- to a 27-gauge needle; the patient must be monitored for an anaphylactic reaction.

The appearance of a wheal and flare 15 to 20 min after injection indicates a positive response to cutaneous or intradermal tests; the size of the wheal and intensity of erythema are graded on a scale of 1+ to 4+. Simultaneous tests assess normal skin reactivity. Histamine or another substance known to produce a wheal and flare serves as a positive control; normal saline is usually used for the negative control. Antihistamines inhibit these skin tests and must be discontinued before testing begins.

Delayed hypersensitivity tests are intradermal tests used to assess T cell-mediated responses rather than IgE-mediated responses. They are used to assess for anergy (inability to respond to common antigens) and as the basis for tuberculosis testing with PPD. The response is read 24 and 48 hr after the antigen is injected. Positive response is indicated by skin induration greater than 5 mm; a wheal and flare may occur shortly after the injection but fade within 12 hr. Corticosteroid drugs interfere with the test and should be discontinued before testing.

Patch tests are performed to identify allergens producing IgE-mediated contact dermatitis. A dilute solution of suspected allergen is applied using a patch taped to the skin. After 48 hr, the skin is inspected for a positive response marked by erythema, vesicles, or papules. Multiple tests are performed at once, usually on the back or upper arms. False-positive and false-negative reactions are common if the concentration of allergen is too high or too low.

skin tightening A loss of normal skin folds and shrinkage of collagen either as a result of overly aggressive resurfacing of the skin or as a consequence of a sclerosing disorder such as progressive systemic sclerosis.

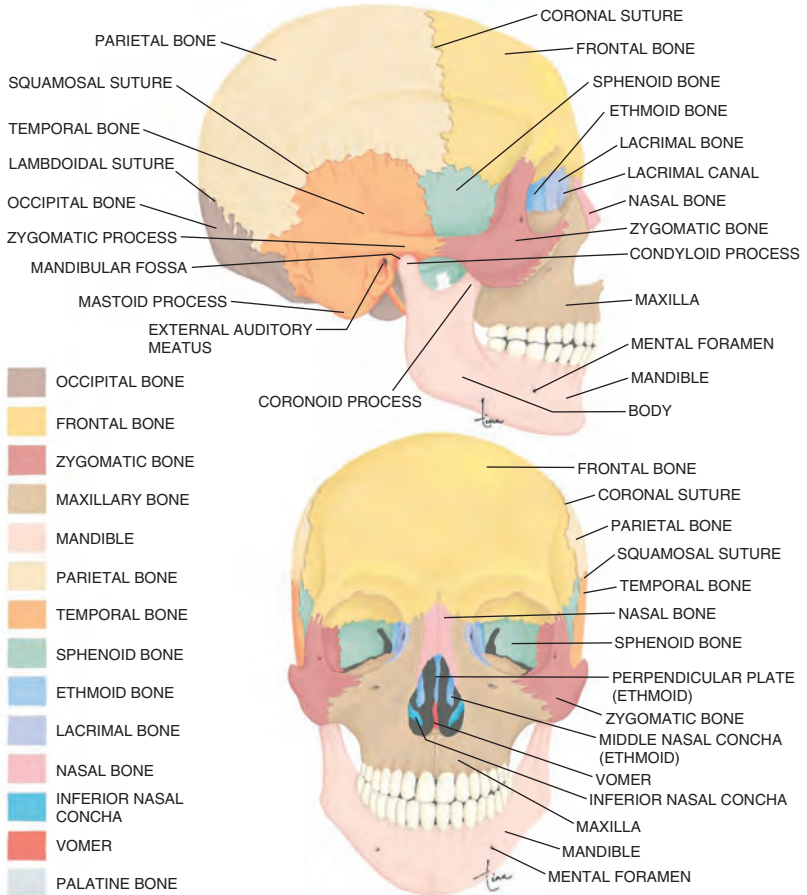
Skoda, Josef (skō'dā) Austrian physician, 1805–1881.

S.'s crackles Bronchial crackles heard through consolidated tissue of the lungs in pneumonia.

S.'s resonance Tympanic resonance above the line of fluid in pleuritic effusion or above consolidation in pneumonia.

skull (skül) [ME. *skulle*, bowl] The bony framework of the head, composed of 8 cranial bones, the 14 bones of the face, and the teeth. It protects the brain and sense organs from injury. SYN: *calvaria; cranium.* SEE: *illus.; skeleton.*

fracture of s. Loss of the integrity of one or more bones of the cranium. A



BONES OF SKULL

Right lateral and anterior views

fracture is classified according to whether it is in the vault or the base but, from the point of view of treatment, a more useful classification is differentiating between a *simple fracture* (uncommon) and a *compound fracture*. When a compound fracture occurs in the vault of the skull, the bone is depressed and driven inward, possibly damaging the brain. Treatment is operative. SEE: *fracture*.

skullcap (skŭl'kăp) The upper round portion of the skull covering the brain. Also called *calvaria*.

skyline view Sunrise view.

slander (slăn'dēr) [LL. *scandalum*, cause of offense] Defaming the character of another through injurious speech. To qualify legally for slander, speech must intentionally impugn the reputa-

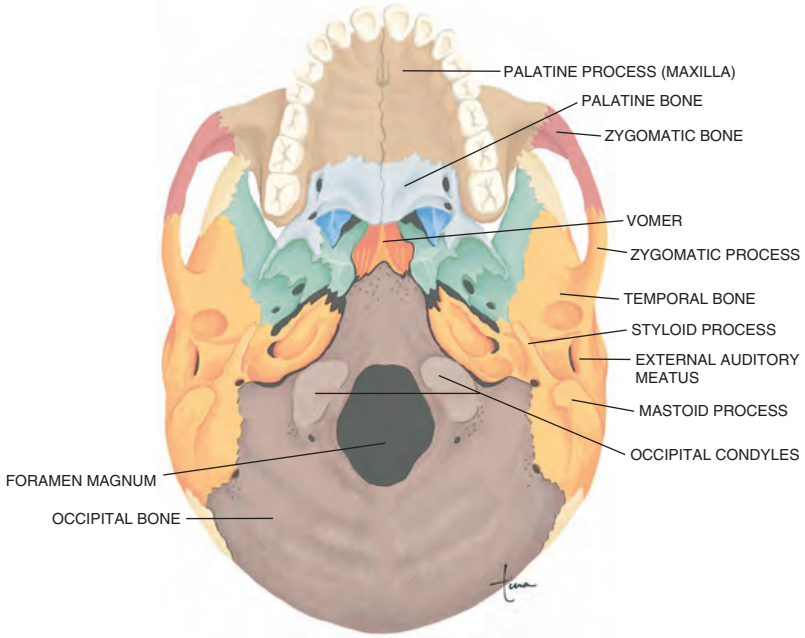
tion of another and be both malicious and demonstrably false.

slant A tube of solid culture medium that is slanted to increase the surface area of the medium; used in culturing bacteria. SYN: *slope* (2).

slave A device that allows body movements to be transferred to a machine either directly or by remote control (e.g., an apparatus for lifting, squeezing, and turning laboratory equipment containing radioactive materials). The remote "hands" are controlled by the operator from a sufficient distance, and proper shielding is used to prevent the operator from being exposed to radiation or other highly toxic materials.

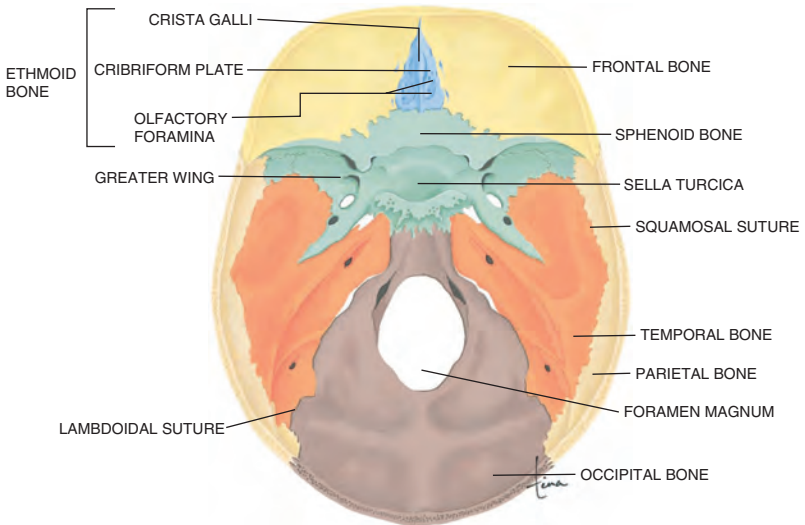
SLE *systemic lupus erythematosus*.

sleep (slēp) [AS. *slæp*] A periodic state of rest accompanied by varying degrees



SKULL

Inferior view with mandible removed



SKULL

Superior view with top of cranium removed

of unconsciousness and relative inactivity. Although sleep is thought of as something that occurs once each 24-hr period, at least half of the world's pop-

ulation has an afternoon nap or siesta as part of their lifelong sleep-wake pattern. The need for and value of sleep is obvious, yet the explanation of why it is

so effective in providing a daily renewal of a feeling of health and well-being is lacking.

The sleep-wake cycle varies in relation to the age and gender of the individual. The newborn may sleep as much as 20 hr each day; a child, 8 to 14 hr, depending on age; adults, 3 to 12 hr with a mean of 7 to 8 hr, and this may decrease to 6.5 hr in the elderly. Women past age 35 tend to sleep more than men. There is great individual variation in the amount and depth of sleep.

Sleep has been found to have two states: one with no rapid eye movements (NREM or synchronized sleep, which involves four stages) and one with rapid eye movements (REM or dreaming sleep). NREM and REM sleep alternate during the night; each cycle requires 90 to 100 min. NREM sleep composes approx. 75% of the sleep cycle and REM sleep approx. 25%, with variations among individuals.

People deprived of sleep for several days or more become irritable, fatigued, unable to concentrate, and usually disoriented. Performance of mental and physical tasks deteriorates. Some people experience paranoid thoughts and auditory, visual, and tactile illusions or hallucinations. Deprivation of REM sleep may cause anxiety, overeating, and hypersexuality. The effects of sleep deprivation are reversed when the normal sleep-wake cycle is resumed. SEE: *non-rapid eye movement s.*; *rapid eye movement s.*

PHYSIOLOGICAL CHANGES DURING SLEEP: The following physiological changes occur during sleep: body temperature falls; secretion of urine decreases; heart rate and respiration become slower and more regular during NREM sleep, then more rapid and less regular during REM sleep. During REM sleep, blood flow to the brain is increased; breathing is more irregular; heart rate and blood pressure vary; cerebral blood flow and metabolic rate increase; and penile erections may occur. There is an increased secretion of growth hormone during the first 2 hr of sleep; surges of adrenocorticotropic hormone (ACTH) and cortisol secretion occur in the last half of the sleep period. Luteinizing hormone secretion is increased during sleep in pubescent boys and girls, and prolactin secretion is increased in men and women, esp. immediately after the onset of sleep.

In evaluating sleep, it is important to know that hand waving, arm swinging, laughing, and flatus occur during normal sleep. Snoring may be clinically insignificant but, when accompanied by apnea, can be harmful.

s. debt The consequences (e.g., fatigue, loss of concentration, or difficul-

ties in coping or job performance) of getting less than an optimal amount of sleep. Most people feel and perform best with 6 to 8 hours of sleep each night.



Driving a car or operating machinery after less than 5 hours of sleep increases the risk of accidents and injury.

s. deprivation Prolonged periods of time without sleep (sustained natural, periodic suspension of relative consciousness). SEE: *Nursing Diagnoses Appendix.*

s. disorder Any condition that interferes with sleep, excluding environmental factors such as noise, excess heat or cold, movement (as on a train, bus, or ship), travel through time zones, or change in altitude. The major classes of sleep disorders are dyssomnias, parasomnias, and sleep pattern disruption associated with medical illness. Other factors that may interfere with sleep include poor sleep hygiene, effects of drugs or alcohol, and dietary changes. SEE: *s. hygiene.*

Dyssomnias, sleep disturbances or excessive sleepiness, include various types of insomnia, hypersomnia, narcolepsy, sleep apnea, brief limb jerks, and restless legs syndrome. In insomnia, an inability to sleep when sleep would normally occur, the difficulty may be in falling asleep, remaining asleep, or both. The disorder may be caused by physical illness or pain, psychological factors such as stress or anxiety, medication that interferes with sleep, or a combination of these factors.

A person with insomnia should be advised that the body will eventually get as much sleep as is needed and that part of the treatment schedule should include not going to bed until drowsiness is present; if wakefulness occurs, it is appropriate to stay awake and do something pleasurable, such as read, work, or study. Other self-help measures include reduction of tension in one's lifestyle, establishment of a regular sleep routine, and avoidance of stimulants (e.g., coffee, tea, or cola) and strenuous exercise before bed. A warm bath just before going to bed relaxes tense muscles. Afternoon naps should be avoided. One should sleep in a quiet, clean, cool, dark environment. A snack or glass of warm milk prior to going to bed will do no harm, but evidence that this practice helps to induce sleep is lacking.



Some drugs used to treat insomnia are less rapidly biotransformed in elderly patients than in the young. These drugs have been associated with delirium, increased risk of falls and hip fractures,

sleepwalking, motor vehicle accidents, and excessive sedation in elderly patients.

Parasomnias include night (sleep) terrors, nightmares, sleepwalking, and disorders related to mental illness.

Factors associated with medical illness may include neurological, cerebrovascular, or endocrine disorders, infection, musculoskeletal disorders, or pulmonary disease.

s. drunkenness A condition in which one requires a long period of time to become fully alert upon awakening from deep sleep. During the transition period, the affected person may become ataxic, disoriented, or aggressive. Persons whose usual awakening sequence includes sleep drunkenness should not attempt to make decisions until they are fully alert and awake.

s. hygiene The influence of behavioral patterns or sleeping environment on the quality and quantity of sleep. Persons with insomnia not caused by a known disease may find that the following may assist in obtaining a good night's sleep: establishing a routine time to go to bed; avoiding trying to sleep; using practices that assist in going to sleep such as reading, watching television, or listening to music; sleeping in a dark room, free of noise; and avoiding caffeine and excessive food or drink before bedtime.

hypnotic s. 1. Sleep induced by hypnotic suggestion. 2. Sleep induced by the use of medicines classified as hypnotics.



Many hypnotic drugs are habit-forming.

s. latency SEE: under *latency*.

non-rapid eye movement s. ABBR: NREM sleep. Sleep during which non-rapid eye movements occur. In NREM stage 1, the transition from wakefulness to sleep occurs. Eye movements are slow, and an electroencephalogram (EEG) shows low brain wave activity. In stage 2, EEG activity is increased, with the appearance of spikes called K complexes. Eye movement ceases in stage 3; wave frequency is reduced and amplitude increased. In stage 4, the EEG is dominated by large spikes, or delta activity. Stages 3 and 4 are considered deep sleep. SEE: *rapid eye movement s.; sleep*.

pathological s. Excessive or disordered sleep.

paradoxical s. A term sometimes used as a synonym for rapid eye movement (REM) sleep. REM sleep is the preferred term.

rapid eye movement s. ABBR: REM

sleep. Sleep during which rapid eye movements occur. In REM sleep, which follows stage 4 of non-rapid eye movement (NREM) sleep, electroencephalographic activity is similar to that of NREM stage 1, and muscle paralysis normally occurs. SEE: *non-rapid eye movement s.; sleep*.

sleep, readiness for enhanced A pattern of natural, periodic suspension of consciousness that provides adequate rest, sustains a desired lifestyle, and can be strengthened. SEE: *Nursing Diagnoses Appendix*.

sleep apnea The temporary absence of breathing during sleep. This common disorder, which affects about 10% of all middle-aged men, and about 5% of middle-aged women, in the U.S. is classified according to the mechanism involved and by whether or not it is associated with daytime sleepiness.

In obstructive sleep apnea, vigorous respiratory efforts are present during sleep but the flow of air in and out of the airways is blocked by upper airway obstruction. Patients with obstructive apnea are usually middle-aged, obese men who make loud snorting, snoring, and gasping sounds during sleep. By contrast, central sleep apnea is marked by absence of respiratory muscle activity. Patients with central apnea may exhibit excessive daytime sleepiness, but snorting and gasping during sleep are absent. Occasionally life-threatening central apneas occur as a result of strokes.

Mixed apnea begins with absence of respiratory effort, followed by upper airway obstruction. Whenever apneas are prolonged, oxygenation drops and carbon dioxide blood levels rise. Patients often awaken many times during the night or have fragmented sleep architecture. In the morning, many patients complain of headache, fatigue, drowsiness, or an unsatisfying night's rest. In addition, these individuals often have hypertension, arrhythmias, type 2 diabetes mellitus, or signs and symptoms of right-sided heart failure. Although these findings may suggest the diagnosis, formal sleep studies in a laboratory are needed to document the disorder and to measure the effects of apneas on oxygenation and other physical parameters.

SYMPTOMS: Partners of patients with sleep apnea are often the first to notice the patient's disordered breathing during sleep. Occasionally patients see their health care providers because of hypersomnolence: they may report falling asleep during the daytime in unusual circumstances (e.g., at traffic lights or whenever seated in a quiet room).

TREATMENT: Optimal therapy of obstructive sleep apnea is to assist

breathing with continuous positive airway pressure (CPAP) if the patient cannot correct the condition by losing weight. CPAP provides a pneumatic splint that maintains airway patency during sleep. Palatal obstruction, a finding in a small number of patients, can be surgically corrected. Medroxyprogesterone may be of some benefit but is clearly less effective than CPAP. SYN: *obstructive sleep apnea*.

sleep architecture The organization of brain wave activity characteristic of each of the stages of sleep.

sleep driving Operating a motor vehicle without being fully awake and alert, esp. when consciousness is affected by sedative or hypnotic drugs.

sleep interruption Sleep fragmentation.

sleep maintenance Staying asleep after initially falling asleep. Patients with sleep maintenance insomnia fall asleep easily but then awaken in the middle of the night and have difficulty resting or sleeping after that.

sleep pattern, disturbed Time-limited disruption of sleep (natural, periodic suspension of consciousness) amount and quality. SEE: *Nursing Diagnoses Appendix*.

sleep-phase syndrome An autosomal dominant condition in which the person sleeps well and for a normal amount of time but not at the usual bedtime hours. Those with delayed sleep-phase syndrome may function best if they go to sleep about the time most people are awakening. Those with advanced sleep-phase syndrome do best when they go to sleep in late afternoon or early evening and arise about midnight. When allowed to sleep at these hours, persons with this condition function normally. SYN: *advanced sleep-phase syndrome*.

sleep start (stǎrt) [ME. *sterten*] Muscle jerking or shortening that occurs at the onset of sleep, usually involving the legs but occasionally the arms, neck, or head.

sleep state misperception (mīs'pēr-sēp'shīn) [ME. *mis-*, prefix meaning "wrongly" or showing negation + ""] The subjective sense that one has disordered sleep without objective findings of insomnia, hypersomnia, narcolepsy, sleep apnea, or other sleep disorders.

sleep technologist A technologist who monitors night-time sleep patterns in a formal sleep test (a polysomnogram). He or she makes audiovisual recordings as well as noninvasive records of the patient's breathing, oxygenation, electrical brain activity, heart rate, and muscle movements. SYN: *polysomnographer*.

sleep-wake cycle The amount of time spent asleep and awake and the cycle of that schedule from day to day.

sleepwalking Autonomic actions per-

formed during sleep. This condition occurs mostly in children, each episode lasting less than 10 min. The eyes are open and the facial expression is blank. The patient appears to awaken, sits on the edge of the bed, and may walk or talk. Activity may cause trauma to the patient and others. The principal aim is to prevent injury by removing objects that could be dangerous, locking doors and windows, and preventing the person from falling down stairs. Night terrors may accompany sleepwalking. There is little or no recollection of the event the next day. Children usually outgrow this condition. SYN: *somnambulism*.

slice In radiology, any plane of the body selected for imaging.

slice culture (slīs) [ME.] A means of studying living tissues by obtaining specimens from approx. 100 to 400 μm in thickness and maintaining them in vitro in a nutrient bath. The technique is used in investigations of brain or liver diseases.

slide **1.** A thin glass plate on which an object is placed for microscopic examination. **2.** A photograph prepared so that it may be used in a film slide projector. **3.** To move along a smooth surface in continuous contact, as the movement in dentistry of the mandibular teeth toward a centric position with the teeth in contact before closing completely in occlusion.

slider board (slīd'ēr) [AS *slidan*] A flat slab of metal, plastic, or wood used to transfer a patient horizontally from one surface to another, e.g., from a gurney to a hospital bed. Slider boards or patient transfer boards are used to prevent musculoskeletal injuries sustained while mobilizing patients.

slimy (slī'mē) [AS. *slim*, smooth] Resembling slime or a viscid substance; regarding a growth, the ability to adhere to a needle so it can be drawn out as a long thread.

sling (slīng) [AS. *slingan*, to wind] A support for an injured upper extremity. SEE: *bandage, triangular* for illus.; *bandage*.



Prolonged skin-to-skin contact should be avoided while a sling is in use.

clove-hitch s. A sling made by placing a clove hitch in the center of a roller bandage, fitting it to the hand, and carrying the ends over the shoulder. The sling is tied beside the neck with a square knot, making longer ends. These may be carried over and behind the shoulders, brought under each axilla, and tied over the chest.

counterbalanced s. A rehabilitation

device to assist upper extremity motion; it suspends the arm by way of an overhead frame and a pulley and weight system. SYN: *suspension sling*.

cravat s. A sling made by placing the center of the cravat under the wrist or forearm with the ends tied around the neck.

folded cravat s. A lower-arm sling made by placing a broad fold of cloth in position on the chest with one end over the affected shoulder and the other hanging down in front of the chest. The arm is flexed as desired across the sling. The lower end is brought up over the uninjured shoulder and secured with a knot located where it will not press on the affected shoulder.

infant s. A sling used to carry a newborn or young child on the chest or back of an adult. Some evidence suggests that slings improve emotional bonding between parent and child.

open s. A sling made by placing the point of a triangular cloth at the tip of the elbow. The ends are brought around at the back of the neck and tied. The point should be brought forward and pinned or tied in a single knot, forming a cup to prevent the elbow from slipping out.

reversed triangular s. A sling made as follows: A triangular bandage is applied with one end over the injured shoulder, point toward the sound side, the base vertical under the injured elbow. The arm is flexed acutely over the triangle. The lower end is brought upward over the front of the arm and over the sound shoulder. The ends are pulled taut and tied over the sound shoulder. The point is pulled taut over the forearm and fixed to the anterior and posterior layers between the forearm and arm. This sling holds the elbow more acutely flexed—the weight is supported by the elbow.

simple figure-of-eight roller arm s. A sling made as follows: The arm is flexed on the chest in the desired position, then a bandage is fixed with a single turn toward the uninjured side around the arm and chest, crossing the elbow just above the external epicondyle of the humerus. A second turn is made, overlapping two thirds of the first, and the bandage is brought forward under the tip of the elbow, then upward along the flexed forearm to the root of the neck of the sound side. Then it is brought downward over the scapula, crossing the chest and arm horizontally, overlapping, turning above, and continued as in a progressive figure-of-eight.

St. John's s. A sling made by applying a triangular bandage with the point downward under the elbow, the upper end over the sound shoulder. The arm is flexed acutely on the chest. The lower

end is brought under the affected arm and around the back to knot with the upper end on the sound shoulder. The point is brought up over the elbow and fastened to the base. Support is wholly for the injured shoulder.

suspension s. Counterbalanced sling.
swathe arm s. A sling for support of the arm that is made as follows: The center of a folded cloth band is placed under the acutely flexed elbow. One end of the sling is then carried to the front and upward across the forearm and over the affected shoulder. Then it is brought obliquely across the back to the sound axilla. Next, the other end of the sling is brought around the front of the arm and across the body to the sound axilla, where it is pinned to the first end of the sling and then continued around the back to the part of the sling surrounding the affected elbow, where it is pinned again.

triangular s. A sling for the arm that is made with suspension from the uninjured side. The triangle is placed on the chest with one end over the sound shoulder, the point under the affected extremity, and the base folded. The injured arm is flexed outside of the triangle. The lower end is carried upward under the axilla of the injured side, back of the shoulder, and tied with the upper end behind the back. The point of the triangle is brought anteriorly and medially around the back of the elbow and fastened to the body of the bandage. This bandage changes the point of carrying and also relieves the clavicle on the injured side of the load. SEE: *bandage, triangular* for illus.

slip [ME. *slippen*] **1.** To move out of a customary place; to dislocate (to *slip* a disk). **2.** To slide into or on top of.

slippery elm An herbal remedy used as a demulcent or as a poultice.

SLIT *sublingual immunotherapy*.

slit (slīt) [ME. *slitte*] A narrow opening.

slope **1.** An inclined plane or surface.
2. Slant.

lower ridge s. The slope of the crest of the mandibular residual ridge from the third molar forward as viewed in profile.

slough (slūf) [ME. *slughe*, a skin]

1. Dead matter or necrosed tissue separated from living tissue or an ulceration. **2.** To separate in the form of dead or necrosed parts from living tissue. **3.** To cast off, as dead tissue. SEE: *escharotic*.

sloughing (slūf'ing) The formation of a slough; separation of dead from living tissue.

slow (slō) [AS. *slaw*, dull] **1.** Mentally dull. **2.** Exhibiting retarded speed, as the pulse. **3.** Said of a morbid condition or of a fever when it is not acute.

slowing In neurology, a decrease in the frequency or rate of brain waves as seen on an electroencephalogram. It may result from brain injury, drugs that alter consciousness, drowsiness, seizures, or sleep.

slow-reacting substance of anaphylaxis ABBR: SRS-A. Old name given to leukotrienes C₄, D₄, and E₄, arachidonic acid metabolites that contribute to the pathophysiology of asthma, causing prolonged bronchoconstriction, increased vascular permeability, increased bronchial mucous secretion, and vasoconstriction. SYN: *leukotriene*. SEE: *arachidonic acid*; *asthma*.

slows (slōz) A condition resulting from ingestion of plants such as snakeroot (*Eupatorium urticaefolium*) or jimmyweed (*Haplopappus heterophyllus*). It is common in domestic animals and may occur in humans as a result of ingesting the plants or, more commonly, from drinking milk or eating the meat of poisoned animals. Symptoms are weakness, anorexia, nausea and vomiting, prostration, and possibly death. SYN: *trembles*.

sludge (slūjh) Under the Resource Conservation and Recovery Act of 1976, any solid, semisolid, or liquid waste generated from a municipal, commercial, or industrial wastewater treatment plant or air pollution control facility.

slump test A test used to assess the effects of tension on the neuromeningeal tract (e.g., in nerve root injury, meningeal irritation, meningitis, disk disease, or central nervous system tumors). The patient is directed to sit slumped forward, flexing the entire trunk. The patient's foot is dorsiflexed and the knee is then extended. Inability to extend the knee fully or production of back or leg pain symptoms, or both, are positive signs. If no positive sign is elicited, then the patient actively extends the neck, and knee extension and pain are then reassessed. Variations of this test are used to target injuries to specific spinal nerves.

slurry (slūr'ē) [ME. *slory*] A thin, watery mixture.

Sly disease Mucopolysaccharidosis VII.

Sly syndrome Mucopolysaccharidosis VII.

Sm Symbol for the element samarium.

small for gestational age ABBR: SGA.

1. Term describing an infant whose birth weight is at or below the 10th percentile, as correlated with the number of weeks in utero on the intrauterine growth chart. 2. A fetus that is more than two standard deviations smaller than the mean size of fetuses in its population.

smallpox (smawl'pōks) [AS. *smael*, tiny, + *poc*, pustule] An acute, highly contagious, and frequently fatal viral ill-

ness caused by the variola virus. SYN: *variola*. SEE: *smallpox vaccine*.

SYMPTOMS: Influenza-like symptoms, esp. high fever, chills, headache, backache, and prostration, are commonly the first sign of infection. These symptoms constitute the *pre-eruptive* stage of smallpox, i.e., the stage that precedes the appearance of the rash. The pre-eruptive phase lasts about 72 hours and is followed by a maculopapular rash that changes over the next couple of weeks to papules, small blisters, pustules, and then scabs. This *eruptive* phase of the illness usually begins on the mouth, face, and arms and then spreads to other body parts, such as the back and chest.

INCUBATION: The disease typically begins 12–14 days after exposure to the virus.

PATIENT CARE: Patients diagnosed with smallpox require airborne precautions with special ventilation and engineering requirements. The patient must be placed in a monitored negative-air-pressure room that allows 6 to 12 air changes per hour. The room door must remain closed except for entering and exiting. Anyone entering must wear adequate droplet protection. Contact precautions require wearing clean gloves and gown during all patient contact; these barriers must be removed before leaving the room. All contaminated instruments, surfaces, excretions, fluid, or other materials require decontamination with chemicals or heat or incineration. Clothing and bedding should be washed in hot water with hypochlorite bleach or may be incinerated. If the patient dies, droplet and contact precautions should be used throughout post-mortem care, treating body bags with hypochlorite bleach. Eating and drinking may be difficult because of painful lesions in the mouth and oropharynx. This discomfort may be alleviated with frequent oral hygiene and a prescribed mouth rinse. Pain is assessed and managed with prescribed analgesic drugs. Intravenous fluids are prescribed as required to prevent dehydration and antipyretic drugs to control high fever. Skin lesions are kept clean and dry. Antipruritics usually are required during the pustular stage. Secondarily infected lesions may need antibiotic therapy. The patient, family, and significant others may need assistance in coping with the psychosocial implications of smallpox, including disfigurement, fear of contagion, fear of death, and grief. Whenever possible, smallpox victims who die should be cremated. Variola virus, which no longer exists in the wild, has been preserved in laboratories and has been considered a bioterrorism threat. Although smallpox vaccination

is not required, it has been offered to the military, health department, first responders and key health care workers because of this threat.

smear (smēr) [AS. *smerian*, to anoint]

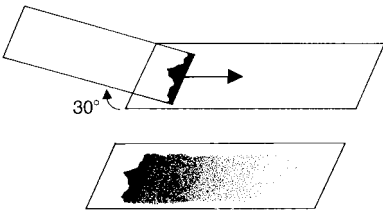
1. In bacteriology, material spread on a surface, as a microscopic slide or a culture medium. **2.** Material obtained from infected matter spread over solid culture media. **3.** Cellular material obtained from a body structure by swabbing, gently scraping, or scratching.

blood s. A drop of (anticoagulated) whole blood spread thinly on a glass microscope slide so that blood cell types can be examined, counted, and characterized. SYN: *peripheral blood smear*.

Procedure:

The slide must be grease-free. It is cleaned with alcohol, rinsed in warm water, and wiped clean with a lint-free towel or lens paper.

A small drop of blood is placed on the slide; the end of another slide (spreader slide) is placed against the first slide at a 45° angle and pulled back against the drop of blood so that the drop spreads between the point of contact of the two slides. Then the spreader slide is pushed forward against the first slide; the blood will form an even, thin smear. The slide is dried by waving it in the air; it should not be heated. The blood smear is covered with Wright's stain and allowed to stand 2 min. An equal amount of distilled water or buffer solution is added and mixed uniformly. It is allowed to stand 5 min. The stain is gently washed off and the slide is allowed to dry. SEE: *illus.*



PREPARATION OF BLOOD SMEAR

buccal s. A sample of cells taken from the mucosa lining the cheek for chromosomal studies.

Pap s. Papanicolaou test.

peripheral blood s. SYN: *blood smear*.

smegma (smĕg'mă) [Gr. *smegma*, soap] Secretion of sebaceous glands, specifically, the thick, cheesy, odoriferous secretion found under the labia minora about the clitoris or under the male prepuce. **smegmatic** (-măt'ĭk), *adj.*

smegmolith (smĕg'mō-lith) [Gr. *smegma*, soap, + *lithos*, a stone] A calcified mass in the smegma.

smell (smĕl) [ME. *smellen*, to reek]

1. To perceive by stimulation of the olfactory nerves. The sense of smell is a chemical sense dependent on sensory cells on the surface of the upper part of the nasal septum and the superior nasal concha. These sensory cells live for an average of 30 days and are affected by a variety of factors, including age, nutritional and hormonal states, drugs, and therapeutic radiation. SYN: *olfactory perception*. **2.** The property of something affecting the olfactory organs. In clinical medicine, the smell arising from the patient's body, feces, breath, urine, vagina, or clothing may provide information concerning diagnosis. The smell on a patient's clothing, for example, may be due to a toxic chemical that spilled on the clothes. A patient may attempt to alter or mask the smell of alcohol on the breath by using medicated or flavored lozenges, mouthwashes, sprays, or mints. Even though our sense of smell is relatively weak compared with that of some animals, humans have the capacity to distinguish among as many as 10,000 different odors. The inhaled substance must be volatile (i.e., capable of diffusing in air) for us to perceive it, and the volatile chemical must also be soluble in water. SEE: *odor*.

Abnormalities in the sense of smell include: **Anosmia:** A loss of the sense of smell. It may be a local and temporary condition resulting from acute and chronic rhinitis, mouth breathing, nasal polyps, dryness of the nasal mucous membrane, pollens, or very offensive odors. It may also result from disease or injury of the olfactory tract, bone disease near the olfactory nerve, disease of the nasal accessory sinuses, meningitis, or tumors or syphilis affecting the olfactory nerve. It may rarely represent a conversion disorder. Disease of one cranial hemisphere or of one nasal chamber may also account for anosmia. SYN: *anodmia; anosphrasia*.

Hyperosmia: An increased sensitivity to odors.

Kakosmia: The perception of bad odors where none exist; it may be due to head injuries or occur in hallucinations or certain psychoses. SYN: *cacosmia*.

Parosmia: A perverted sense of smell. Odors that are considered agreeable by others are perceived as being offensive, and disagreeable odors are found pleasant. SYN: *parosphresia*.

smile A facial expression that may represent pleasure, amusement, derision, or scorn. The corners of the mouth are turned up in expressions of pleasure or amusement, and the eyes usually appear to be warm and friendly.

Smith's fracture (smĭths) [Robert W. Smith, Irish physician, 1807–1873] A fracture of the lower end of the radius,

with anterior displacement of the lower fragment.

Smith-Petersen nail (smīth'pē'tēr-sén) [Marius N. Smith-Petersen, U.S. orthopedic surgeon, 1886–1953] A special nail that on cross-section has three flanges, used for stabilizing fractures of the neck of the femur.

smog [blend of *smoke* and *fog*] Dense fog combined with smoke and other forms of air pollution.

smoke (smök) Any suspension in the air of particles produced by combustion.

smoke inhalation injury Damage to the respiratory tract (i.e., upper airway inflammation and swelling) as a result of inhaling hot gases that may contain toxic substances. Persons exposed to gases produced by burning materials are at risk of developing acute injury to their lungs, and, depending on the composition of the smoke and the duration of the exposure, the combination of heat and gases may be lethal. Firefighters are esp. at risk from this kind of exposure. Construction and decorating materials produce a variety of volatile and irritating substances when burned. Repeated exposure to some of these gases may lead to chronic irritation of the respiratory tract. Firefighters should be aware that the appearance of smoke produced by a fire may not be a true indicator of the amount of toxic substances, including carbon monoxide, in the smoke. SEE: *carbon monoxide*.

SYMPTOMS: Patients who have suffered smoke inhalation injury may complain of dyspnea, cough, and black sputum. Stridor may be present if the upper airway is narrowed as a result of inflammation. Confusion may occur if carbon monoxide poisoning is also present.

smoldering Of some cancers, growing or progressing slowly.

SMON *subacute myelo-optic neuropathy*. SEE: under *neuropathy*.

smudging (smūj'ing) A speech defect in which difficult consonants are omitted.

Sn [L. *stannum*] Symbol for the element tin.

snail [ME.] A small mollusk having a spiral shell and belonging to the class Gastropoda. Snails are important as intermediate hosts of many species of parasitic flukes.

s. fever Schistosomiasis.

snake [ME.] A reptile possessing scales and lacking limbs, external ears, and functional eyelids. In poisonous snakes, venom is produced in a poison gland, which is connected by a tube or groove to a poison fang, one of two sharp elongated teeth present in the upper jaw. In the U.S., the coral snake, copperhead, water moccasin (cottonmouth), and rattlesnake, of which there are 15 species, are poisonous. All except the coral snake belong to the pit viper group, be-

cause they possess a sensory pit between the eye and nostril. SEE: *illus.*

s. bite SEE: under *bite*.

snakeroot (snāk'rüt) A toxic plant (*Eupatorium rugosum* *Houtt*) once thought to be useful as a remedy for snakebites. Animals that eat snakeroot get trembling disease (or the trembles), and humans who consume fresh raw milk obtained from intoxicated cows or goats develop milk sickness.

snap A sharp cracking sound.

closing s. The intense first heart sound heard in mitral stenosis.

snapping hip A slipping of the soft tissue around the hip joint, producing an palpable snapping sensation or audible snapping sound. Snapping hip syndrome may be caused by internal, external, or intra-articular factors.

external s. A popping sound heard and felt at the hip joint. It is usually caused by the iliotibial tract or the anterior border of the gluteus maximus passing over the greater trochanter as the hip moves from extension to flexion.

internal s. A popping sound heard and felt at the hip joint. It is usually produced by the iliopsoas tendon passing over the iliopsoas eminence as the hip moves from flexion to extension. The iliopsoas bursa may also be implicated in cases of internal snapping hip syndromes.

intra-articular s. Snapping hip syndrome caused by an intra-articular lesion, including loose bodies within the joint space or folds in the synovial capsule. Labral tears may also be implicated but tend to produce significant pain.

snare (snār) [AS. *sneare*, noose] A device for excision of polyps or tumors by tightening wire loops around them. A snare may be connected to an electro-surgical unit, which may facilitate cutting and coagulation.

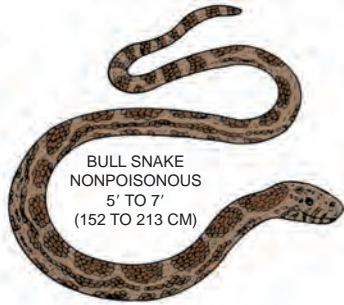
Sneddon syndrome (snē'dŏn) [Ian Bruce Sneddon, Br. dermatologist, 1915–1987] A rare condition marked by multiple strokes in persons who have lived reticularis and high blood pressure. Coagulation abnormalities, including antiphospholipid antibodies, are often found in this condition.

sneeze (snēz) [AS. *fneosan*, to pant]

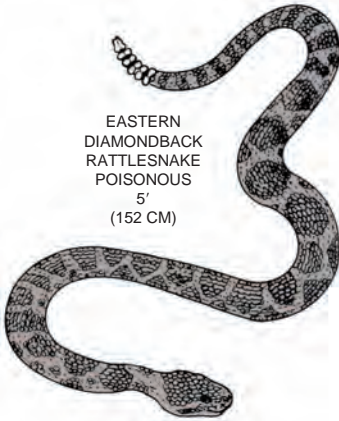
1. To expel air forcibly through the nose and mouth by spasmodic contraction of muscles of expiration caused by an irritation of nasal mucosa. The sneeze reflex may be produced by a great number of stimuli. Placing a foot on a cold surface will provoke a sneeze in some people, whereas looking at a bright light or sunlight will cause it in others. Firm pressure applied to the middle of the upper lip and just under the nose will sometimes prevent a sneeze that is about to occur. SEE: *photic sneezing*;



WATER SNAKE
NONPOISONOUS 3-1/2' TO 5'
(107 TO 152 CM)



BULL SNAKE
NONPOISONOUS
5' TO 7'
(152 TO 213 CM)



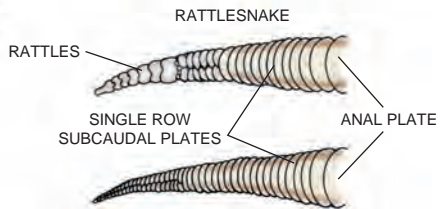
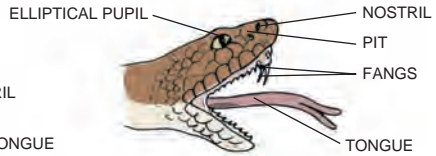
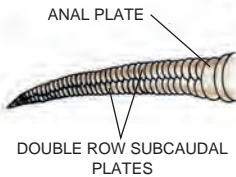
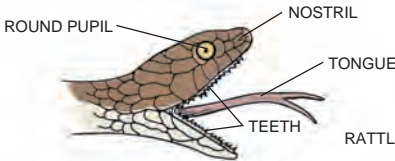
EASTERN
DIAMONDBACK
RATTLESNAKE
POISONOUS
5'
(152 CM)

SCARLET KING SNAKE
NONPOISONOUS 18"
(40 CM)



GENERAL CHARACTERISTICS
OF POISONOUS SNAKES:
(PIT VIPERS)

GENERAL CHARACTERISTICS
OF HARMLESS SNAKES:



NO RATTLES
COPPERHEADS AND COTTONMOUTHS

SNAKES

ptarmus. 2. The act of sneezing. SEE: *sternutation*; *sternutatory*.
Snellen, Herman (snĕl'ĕn) Dutch ophthalmologist, 1834–1908.
S.'s chart A chart imprinted with lines of black letters graduating in size

from smallest on the bottom to largest on top; used for testing visual acuity.
S.'s reflex Congestion of the ear on the same side upon stimulation of the distal end of the divided auriculotemporal nerve.
SYN: *reflex, auriculocervical nerve.*

- S.'s test** A test for visual acuity in which the patient reads a Snellen's chart at a certain distance with one eye, then with the other eye, and then with both eyes.
- sniff test** A test used to detect bacterial vaginosis. The discharge from the vaginal area is swabbed, placed on a slide, and 10% KOH (potassium hydroxide) is added. The presence of a fishy odor is indicative of bacterial vaginosis.
- snore** [AS. *snora*] The noise produced while breathing through the mouth during sleep, caused by air passing through a narrowed upper airway. Most people snore to some extent. Snoring is of no clinical importance to the snorer unless it is prolonged, chronic, and related to other symptoms such as sleep apnea or excessive daytime sleepiness. It may be important to the snorer's partner if the snoring is so loud as to disrupt the sleep of those sharing the sleeping space. In some cases, the snoring is of such clinical or social importance that plastic or laser surgery to remove redundant tissue in the pharynx is indicated SYN: *stertor*. SEE: *sleep apnea*.
- snort** (snört) [ME. *snorten*] A slang term for *inhale*, esp. for the inhalation of illicit drugs.
- snow, carbon dioxide** Carbon dioxide solid therapy.
- snowball sample** A group of research subjects who help, through word of mouth or casual contact, to select other research subjects.
- snowbank** Colloquial term for a massive exudate found over the pars plana of the eye in pars planitis.
- snow-plowing** In arterial angioplasty, the pushing of intravascular debris from one occluded vessel into the opening of an adjacent vessel, causing that vessel to close and the tissue it supplies with blood to infarct.
- SNRI** *serotonin and norepinephrine reuptake inhibitor*.
- snRNA** Small nuclear ribonucleic acids. They are small RNA molecules that are confined to the cell nucleus. They initiate protein transcription, remove introns from RNA molecules, and add methyl (-CH₃) groups to molecules.
- SNS** *Society of Neurological Surgeons*.
- snuff** **1.** A medicinal powder inhaled through the nose. **2.** A powdered form of tobacco inhaled through the nose or placed in the oral cavity. SYN: *tobacco, smokeless*.
- snuffles** (snü'f'ls) [D. *snuffelen*, to snuff] Obstructed nasal breathing with discharge from the nasal mucosa, esp. in infants, chiefly in congenital syphilis.
- snurps** (snürps) A colloquial term for "small nuclear ribonucleoproteins," more commonly known as snRNA.
- SOAP** (söp) Acronym for an organized structure for keeping progress notes in the chart. Each entry contains the date, number, and title of the patient's particular problem, followed by the SOAP headings: Subjective findings; Objective findings; Assessment, the documented analysis and conclusions concerning the findings; and Plan for further diagnostic or therapeutic action. If the patient has multiple problems, a SOAP entry on the chart is made for each problem.
- soap** (söp) [AS. *sape*] A cleansing chemical compound formed by an alkali acting on a fatty acid, such as sodium stearate, NaC₁₈H₃₅O₂. Castile soap is made by saponifying olive oil with sodium hydroxide and contains mainly sodium oleate, NaC₁₈H₃₃O₂. SEE: *detergent; saponification*.
- antibacterial s.** A cleanser chemically altered to increase its ability to kill microorganisms.
- SOB** *short of breath*.
- sob** [ME. *sobben*, to catch breath] **1.** To weep with convulsive movements of the chest. **2.** A cry or wail resulting from a sudden convulsive inspiration accompanied by spasmodic closure of the glottis. SEE: *sigh*.
- social capital** (sō'shīl) [L. *socialis*] Community assets, i.e., interpersonal networks, bonds, and institutions that support communities, maintain their cohesiveness, and help them weather crises.
- social class** **1.** Social standing or position. SYN: *socioeconomic status*. **2.** A group of people with shared culture, privilege, or position.
- social engagement** engagement (2)
- social functioning** The ability of a person to interact easily and successfully with other people.
- social influence** The impact of peers, family members, educators, or colleagues on a person's thoughts, feelings, and behaviors.
- social interaction, impaired** The state in which an individual participates in an insufficient or excessive quantity or ineffective quality of social exchange. SEE: *Nursing Diagnoses Appendix*.
- social isolation** Aloneness experienced by the individual and perceived as imposed by others and as a negative or threatened state. SEE: *Nursing Diagnoses Appendix*.
- socialization** (sō'shā-lī-zā'shūn) The process of adapting an individual to the social customs of society; in the process he or she becomes an integrated member of the society.
- social network** A group of individuals who are linked by behaviors (e.g., drug abuse), diseases (e.g., a cancer support group), hobbies or lifestyles (e.g., participation in sports), family ties, or professions (e.g., nursing).
- social reasoning** The processing of inter-

personal cues as a means of copying or learning acceptable behavior.

social relatedness Interpersonal intimacy; empathy; shared subjectivity.

Society for Assisted Reproductive Technology ABBR: SART. An affiliate of the American Society for Reproductive Medicine consisting of clinics and programs that provide assisted reproductive technology. SART reports annual fertility clinic data to the Centers for Disease Control and Prevention.

socioacusis (sō'sē-ō-ā-kū'sis) [L. *socius*, companion, + Gr. *akoustikos*, hearing] The long-range ill effects of environmental noise on auditory acuity.

sociobiology (sō'sē-ō-bī-ōl'ō-jē) [" + "] Analysis of social behavior in terms of evolutionary theory. It assumes that animal or human populations evolve and adapt to their environments in different ways (e.g., through individual learning, cultural tradition, or genetic inheritance).

socioeconomic status ABBR: SES. The relative position attained by an individual in a cultural and financial hierarchy. Differences in socioeconomic status are responsible for important disparities in the nutrition, housing, safety, and health of large groups of people. In general, the lower one's SES, the greater one's risk of malnutrition, heart disease, infectious diseases, and early mortality from all causes. Income, education, occupation, vocation, and wealth all contribute to SES.

sociogram (sō'sē-ō-grām) A diagram used in group analysis and group therapy that shows patterns of relationships between participants or variables.

sociology (sō'sē-ōl'ō-jē) [" + *logos*, word, reason] The study of human social behavior and the origins, institutions, and functions of human groups and societies.

sociomedical (sō'sē-ō-mēd'ī-kāl) Pert. to sociology and medicine, esp. the interrelationships between the two.

sociometry (sō'sē-ōm'ē-trē) [" + Gr. *metron*, measure] The science concerned with measuring social behavior.

sociopath (sō'sē-ō-pāth) [" + Gr. *pathos*, disease, suffering] An individual with antisocial personality disorder. SEE: *personality disorder, antisocial*.

sociopathy (sō'sē-ōp'ā-thē) [" + Gr. *pathos*, disease, suffering] The condition of being antisocial.

socket (sōk'ēt) [ME. *soket*, a spearhead] **1.** A hollow in a joint or part for another corresponding organ, as a bone socket or an eye socket. SEE: *acetabulum*. **2.** The proximal portion of a prosthesis, into which the stump of an amputated extremity is fitted.

alveolar s. The bony space occupied by the tooth and periodontal ligament.

dry s. Localized alveolar osteitis.

tooth s. A dental alveolus of the maxilla or mandible; a cavity that contains the root of a tooth.

soda (sō'dā) [Med. L., *barilla*, from which soda is made] A term loosely applied to various salts of sodium, esp. to caustic soda (sodium hydroxide) and baking soda (sodium bicarbonate). SEE: *sodium*.

baking s. Sodium bicarbonate.

caustic s. Sodium hydroxide.

sodio- Combining form denoting a compound containing sodium.

sodium (sō'dē-ŭm) [LL.] SYMB: Na. The most abundant cation in extracellular fluids. It is the main contributor to osmotic pressure and hydration; participates in many specialized pumps and receptors on cell membranes; and plays a fundamental part in the electrical activities of the body (e.g., nerve impulse transmission and muscular contraction).

Sodium is an inorganic metal with a strong affinity for oxygen and other non-metallic elements. It has an atomic weight of 23; atomic number of 11; and specific gravity of 0.971. Sodium constitutes about 0.15% of the mass of the body.

The normal sodium level in serum is 135 to 145 mmol/L. A decreased level of sodium in the serum is called hyponatremia. An increased level of sodium in the serum is called hypernatremia. These conditions are not usually excesses or deficiencies of sodium per se but rather disturbances in the body's regulation of water (i.e., a change in measured sodium concentrations usually results from water retention or water depletion and not from too little or too much sodium in the body). SYN: *natrium*.

HYPONATREMIA: Low serum sodium levels are extremely common in clinical medicine and are caused by one of the following conditions: congestive heart failure, renal failure, cirrhosis; syndrome of inappropriate antidiuretic hormone (SIADH); dehydration; thyroid or adrenal hormone dysfunction; side effects of drugs; psychogenic polydipsia; laboratory error (i.e., pseudohyponatremia). Symptoms of hyponatremia include weakness, confusion, and anorexia. If serum sodium levels drop rapidly, seizures may occur. Treatment of hyponatremia depends on the underlying cause.

HYPERNATREMIA: Elevated serum sodium levels are almost always the result of free water deficits (dehydration) and are treated with intravenous or oral replacement of water. Rarely, hypernatremia may develop after intravenous infusions of solutions with high concentrations of sodium. Symptoms of hypernatremia include thirst, orthostatic diz-

ziness, altered mental status, and neuromuscular dysfunction.

s. acetate A chemical compound that is used to alkalize the urine and kidney dialysis solutions. It is also used as a component in many laboratory reagents, such as various buffers.

s. alginate A purified carbohydrate product extracted from certain species of seaweed. It is used as a food additive and as a pharmaceutical aid.

s. ascorbate The sodium salt of ascorbic acid, vitamin C. It may be used in a sterile solution when parenteral administration of vitamin C is required.

s. benzoate A white, odorless powder with sweet taste; used as a food preservative.

s. bicarbonate NaHCO_3 ; a white odorless powder with saline taste. It is incompatible with acids, acid salts, ammonium chloride, lime water, ephedrine hydrochloride, and iron chloride. It is used to treat acidosis (e.g., in renal failure). Orally it is used as an antacid, although its effectiveness for this purpose is questionable. Externally, it is used as a mild alkaline wash. It is also used as a component in many laboratory reagents, such as various buffers, microbiologic media, and control materials.

s. carbonate Na_2CO_3 ; a white crystalline powder (washing soda), used as an alkali employed chiefly in alkaline baths.

carboxymethylcellulose s. A chemical used as a pharmaceutical aid and a food additive.

s. chloride NaCl ; common table salt. It is used in preparation of normal saline solution, as an emetic, and to add flavor to foods. It is incompatible with silver nitrate. In aqueous solution, sodium chloride, a neutral salt, is a strong electrolyte, being almost completely ionized. The sodium and chlorine ions are important in maintaining the proper electrolyte balance in body fluids. The kidneys regulate retention or excretion of sodium chloride in urine; aldosterone directly increases the renal reabsorption of sodium ions.

s. citrate A white granular powder, saline in taste and soluble in water. Used as an anticoagulant for blood collected for laboratory analysis or used for transfusion.

s. fluoride NaF ; a white crystalline powder, saline in taste, soluble in 25 parts of water. It is added to drinking water and used in solution for local application to teeth to prevent dental caries, and it is an effective and inexpensive treatment used in the treatment of osteoporosis. SEE: *fluoridation*; *sodium fluoride poisoning*.

s. hydroxide NaOH ; a whitish solid that is soluble in water, making a clear solution. It is an antacid and a caustic.

It is used in laundry detergents and in commercial compounds used to clean sink traps, toilets, and in the preparation of soap. It is also used as a component in any laboratory reagent that needs pH balancing. SYN: *caustic soda*.



Great care must be taken in handling sodium hydroxide, as it rapidly destroys organic tissues. Protective glasses should be worn while working with this chemical. If splashed in the eye, it may cause blindness.

s. hypochlorite [solution] An antiseptic used in root canal therapy. This solution is not suitable for application to wounds.

s. iodide NaI ; a colorless crystalline solid that is used as an expectorant.

s. lactate [injection] Sodium salt of inactive lactic acid. In one-sixth or one-fourth molar solution, it is used intravenously to control electrolyte disturbances, esp. acidosis.

s. lauryl sulfate An anionic surface-active agent that is used as a pharmaceutical aid.

s. monofluoroacetate A toxic pesticide, once banned in the U.S., that inhibits cellular metabolism, esp. in the most metabolically active organs (i.e., brain and heart). In humans it causes arrhythmias, seizures, coma, and occasionally death. It is used commercially to kill rodents and large animals.

s. monofluorophosphate An agent suitable for topical application to teeth to prevent dental caries.

morrhuate [injection] s. The sodium salt of the fatty acids, found in cod liver oil; used as a sclerosing agent for the obliteration of varicose veins, including esophageal varices.

s. phosphate P 32 [solution] A standardized preparation of radioactive phosphorus (^{32}P).

s. thiosulfate A white crystalline substance used externally to remove stains of iodine and intravenously as an antidote for cyanide poisoning.

sodium modeling Titration of sodium concentrations during hemodialysis to relieve the muscle cramping, nausea, vomiting, and blood pressure fluctuations sometimes seen during the procedure.

sodium polyanethol sulfonate (pól'è-àn'è-thól) [P + L. fm Gr. *anethon*, anise] ABBR: SPS. A polyanionic detergent and antimicrobial agent used in microbiological assays to identify anaerobic bacteria.

sodomy (sód'ò-màl) [LL. *Sodoma*, Sodom] Anal or oral intercourse.

Soemmering, Samuel T. von (sém'er-ìng) German anatomist, 1755–1830.

S's ring An annular swelling of the periphery of the lens capsule.

SOFAS *Social and Occupational Functioning Assessment Scale.*

soft (sɒft) [AS. *softe*] Not hard, firm, or solid.

soft-calorie syndrome Weight gain in persons who have undergone gastric stapling, gastric bypass, or jaw-wiring, but who consume an excessive amount of calories through the consumption of liquids and/or mechanically soft foods like refined breads, cereals, ice creams, and custards, as opposed to raw fruits, vegetables, and whole grain products.

soft copy A radiological image visible on a computer screen instead of film.

softening (sɒf'ɛn-ɪŋ) [AS.] The process of becoming soft. SYN: *malacia*.

s. of bones Osteomalacia.

soft sign Any of a number of signs that, when considered collectively, are felt to indicate the presence of damage to the central nervous system. These signs include incoordination, visual motor difficulties, nystagmus, the presence of associated movements, and difficulties with motor control.

soft sore Chancroid.

sol (sɒl, sɔl) [Gr. *sole*, salt water]

1. State of a colloid system in which the dispersion medium or solvent forms a continuous phase in which the particles of the solute are dispersed, forming a fluid mass. It is called a hydrosol if the dispersion medium is a liquid and an aerosol if a gas. SEE: *gel*. 2. Solution.

solace (sɒ'lās) An object or resource that soothes pain or mental stress. In children a teddy bear or a "security" blanket may provide solace. In later life, one's spouse, a friend, or a hobby may be a source of comfort and security.

Solanaceae (sɒl'ā-nā'sē-ē) A family of herbs, shrubs, and trees from which several important drugs such as scopolamine and belladonna are derived. The potato is one of the species.

solanaceous (sɒl'ā-nā'shūs) Concerning the family Solanaceae.

s. glycoalkaloids ABBR: SGAs. Steroid chemicals found in plants like potatoes, tomatoes, and eggplants that may prolong the action of some anesthetics and opiates. SGAs inhibit two enzymes, butyrylcholinesterase and acetylcholinesterase, effectively decreasing the metabolism of anesthesia.

solanine (sɒ'lā-nēn) A poisonous alkaloid found in potatoes, tomatoes, and other members of the nightshade family. SEE: *poisoning, potato*.

solar (sɒ'lār) [L. *solaris*] Pert. to the sun or its rays.

solarium (sɒ-lā'rē-ūm) [L. *solarium*, terrace] 1. A room or porch exposed to the sun. 2. A room designed for heliotherapy or for the application of artificial light. 3. A day or recreational room for

patients; often used as a waiting area for family or visitors.

solar plexus The celiac plexus, located behind the stomach and between the suprarenal glands and consisting of two large ganglia, the celiac and superior mesenteric ganglia, from which sympathetic fibers pass to visceral organs.

solar therapy Treatment with the sun's rays. SYN: *heliotherapy*.

solution (sɔ-lā'shūn) In colloidal chemistry, the transformation of a gel into a sol.

solder (sɒd'ər) Any fusible alloy usually made of tin and lead but may be mostly silver or gold for use in dentistry. The alloy is applied in a molten state to build up or join metal parts.

building s. An alloy of silver with large amounts of copper used to increase the height or bulk of contact areas of dental inlays or crowns; also called *sticky solder*.

gold s. A solder alloy containing a high proportion of gold.

hard s. A solder that is used in dentistry, has a high fusion point, and is stronger and more tarnish-resistant than softer, low-melting-point solders. This class of solders has increased compressive strength and reduced tensile strength. The increased strength is a result of increased platinum or palladium content within the alloy. This class of alloys is used for appliances that span large distances in the oral cavity.

soft s. A low-melting-point solder with less strength or tarnishing resistance than hard solder.

soldering (sɒd'ər-ɪŋ) The joining of two pieces of metal by use of a lower-melting-point alloy. When the melted solder cools and solidifies, it joins the parts together. Soldering is used to join many components of dental appliances or orthodontic bands and to add bulk or contours to crowns or inlays.

sole (sɔl) [AS. *sole*] 1. The underpart of the foot. SYN: *planta pedis*. 2. The portion of a synaptic knob at the termination of a motor nerve fiber that is directly adjacent to the sarcolemma of a muscle fiber.

solenoid (sɒl'lē-noyd) A coil of insulated wire in which a magnetic force is created in the long axis of the coil when an electric current flows through the wire. It may be used to activate switches.

Solenopsis invecta (sɔ-lēn-ɒp'sis in-vik'tah) The primary species of fire ant that resides in the southern U.S. Its bite can cause welts or, in some instances, generalized anaphylaxis. SEE: *fire ant bite*.

soleus (sɔ'lē-ūs) [L. *solea*, sole of foot] A flat, broad muscle of the calf of the leg.

solid (sɒl'ɪd) [L. *solidus*] 1. Not gaseous, hollow, or liquid. 2. A substance not gaseous, liquid, or hollow.

solipsism (sōl'ip-sīzm) [L. *solus*, alone, + *ipse*, self] The theory that the self may know only its feelings and changes and there is then only subjective reality.

solitary (sōl'ī-tār-ē) [L. *solitarius*, aloneness] Alone; single or existing separately.

solitary lymph nodule One of the small spherical lymphatic nodules found in the lamina propria of the small and large intestine.

solitude Isolation; aloneness.

solo practitioner A physician, dentist, or other practitioner who practices alone rather than with a group or partner.

solubility (sōl'ū-bil'ī-tē) [LL. *solubilis*, to loosen, dissolve] The capability of being dissolved.

aqueous s. The ability of a substance to dissolve in water. The aqueous solubility of a medication determines its ability to be compounded, administered, and absorbed.

soluble (sōl'ū-bl) Able to be dissolved.

soluble fms-like tyrosine kinase 1 ABBR: sFlt-1. An antiangiogenic protein found in the serum of women who subsequently develop pre-eclampsia. It may contribute to the development of this syndrome.

soluble immune response suppressor ABBR: SIRS. A term previously used for circulating IgG antibodies that suppress antibody production.

soluble transferrin receptor ABBR: sTfR. A membrane-bound receptor expressed on the surfaces of cells that take up iron from the blood. Levels of this receptor are increased in iron-deficiency anemia. Measurement of circulating levels of the receptor are esp. useful in the diagnosis of iron deficiency in patients who also have anemia of chronic disease.

solute (sōl'ūt) [L. *solutus*, to loosen, dissolve] The substance that is dissolved in a solution.

solution (sō-lū'shūn) [L. *solutus*, to loosen, dissolve] **1.** A liquid containing a dissolved substance. **2.** The process by which a solid is homogeneously mixed with a fluid, solid, or gas so that the dissolved substances cannot be distinguished from the resultant fluid. **3.** A mixture formed by dissolution of substances.

The liquid in which the substances are dissolved is called the *solvent* and the substance dissolved, the *solute*.

aqueous s. A solution containing water as the solvent.

balanced s. 1. A synonym for isotonic solution. **2.** A solution whose concentrations are matched physiologically to the part of the body in which it will be infused or used for irrigation. SEE: *isotonic s.*

Benedict's s. SEE: *Benedict's solution.*

buffer s. A solution of a weak acid

and its salt (e.g., carbonic acid, sodium bicarbonate) of importance in maintaining a constant pH, esp. of the blood.

Burow's s. SEE: *Burow's solution.*

citrate s. A solution used to prevent clotting of the blood. Its use permits whole blood to be stored in a refrigerator until it is needed for transfusion.

cobra venom s. Minute quantities of cobra venom in sterile physiological salt solution.

colloidal s. A solution in which the solute is suspended and not dissolved, such as gelatin or albumin.

heparin lock flush s. A solution of unfractionated heparins that was used in the past to keep intravenous infusion devices from clotting. Heparin flushes are now infrequently used because they are more expensive than saline flushes and because they pose a risk of heparin-related thrombocytopenia, a potentially life-threatening allergy.

hyperbaric s. A solution with a specific gravity greater than one, or greater than the solution to which it is being compared. This is important in injecting medicines or anesthetic agents into the spinal fluid in the spinal canal.

hypertonic s. A solution having a greater osmotic pressure than that of cells or body fluids; a solution that draws water out of cells, thus inducing plasmolysis.

hypotonic s. A solution having an osmotic pressure less than that of cells or body fluids; a solution that will cause water to enter cells, thus inducing swelling and possibly lysis.

iodine s. A solution of iodine or potassium iodine used as a source of iodine.

isobaric s. A solution with a specific gravity equal to one or equal to the solution with which it is being compared. SEE: *hyperbaric s.*

isohydric s. A solution having the same hydrogen ion concentration or pH as another.

isosmotic s. A solution with the same osmotic pressure as the solution with which it is being compared.

isotonic s. A solution that has a concentration of electrolytes, nonelectrolytes, or both that will exert osmotic pressure equivalent to that of the solution with which it is being compared. Either 0.16 molar sodium chloride solution (approx. 0.95% salt in water) or 0.3 molar nonelectrolyte solution is approx. isotonic with human red blood cells.

Jessner's s. SEE: *Jessner's solution.*

Locke-Ringer's s. A buffered isotonic solution containing 9.0 g sodium chloride, 0.42 g potassium chloride, 0.24 g calcium chloride, 0.5 g sodium bicarbonate, 0.2 g magnesium chloride, 0.5 g dextrose, and distilled water to make 1000 ml.

molar s. A solution containing a gram molecular weight or mole of the reagent dissolved in 1 L (1000 ml) of solution; designated 1 M.

normal s. An obsolete term for a solution in which 1 L contains 1 g equivalent of the solute. The use of this terminology is discouraged in the SI system.

normal saline s. An isotonic saline solution. SEE: *isotonic s.*

ophthalmic s. A sterile preparation suitable for instillation in the eye.

oral rehydration s. A solution used to prevent or correct dehydration due to diarrheal illnesses. The World Health Organization recommends that the solution contain 3.5 g sodium chloride; 2.9 g potassium chloride; 2.9 g trisodium citrate; and 1.5 g glucose dissolved in each liter (approx. 1 qt) of drinking water.

physiological saline s. Normal saline s.

repair s. Any solution given intravenously to treat an electrolyte or metabolic disturbance.

Ringer's s. SEE: under *Ringer, Sydney.*

saline s. A solution of a salt, usually sodium chloride, and distilled water. A 0.9% solution of sodium chloride is considered isotonic to the body. A normal saline solution (one having an osmolality similar to that of blood serum) consists of 0.85% salt solution, which is necessary to maintain osmotic pressure and the stimulation and regulation of muscular activity.

saturated s. A solution containing all the solute it can dissolve. This limit is called the *saturation point*.

sclerosing s. Sclerosant.

seminormal s. ABBR: 05N or N/2. A solution containing one-half of a gram equivalent weight of reagent in 1 L (1000 ml) of solution.

sodium iodide I 125 s. A standardized solution of radioactive iodide, ¹²⁵I.

standard s. A solution containing a definite amount of a substance; used for comparison or analysis.

supersaturated s. A solution in which the saturation point is reached but when it is heated it is possible to dissolve more of the solute.

test s. A dissolved reagent used for a specific laboratory purpose.

Tyrode's s. A modified Ringer's solution containing, in addition, a small amount of magnesium chloride and acid and sodium phosphates.

volumetric s. A standard solution containing a definite amount of a substance in 1 L (1000 ml) of solution; used in volumetric analysis.

solvate (sól'vāt) A compound formed by reaction between solvent and solute.

solvation The interaction of solvent mol-

ecules with the molecules or ions dissolved in them.

solvent (sól'vent) [L. *solvens*] **1.** Producing a solution, dissolving. **2.** A liquid holding another substance in solution. **3.** A liquid that reacts with a solvent, bringing it into solution.

solvent abuse Glue-sniffing.

solvent/detergent treated ABBR: SD. Exposed to, soaked in, or washed in chemicals that remove or inactivate lipid-soluble components from solution. Blood products (e.g., coagulation factor concentrates or fresh frozen plasma) are SD-treated to reduce potential contamination of these products by lipid-enveloped viruses (e.g., hepatitis B, hepatitis C, or HIV).



Reported complications resulting from the use of SD plasma include clotting in some patients (thromboembolism) and bleeding in others.

solvolysis (söl-vól'i-sis) A general term for reactions involving decomposition by hydrolysis, ammonolysis, and sulfolysis.

-som A combining form used in pharmacology to designate any growth hormone derivative.

soma (sō'mā) [Gr. *soma*, body] **1.** The body as distinct from the mind. **2.** All of the body cells except the germ cells. **3.** The body of a cell; the portion containing the nucleus.

soman (sō'män) Pinacolyl methylphosphonofluoridate; an extremely toxic nerve gas.

somatesthesia (sō'mät-ēs-thē'zē-ä) [+ *aisthesis*, sensation] The consciousness of the body; bodily sensation.

somatic (sō-mät'ik) [Gr. *soma*, body]

1. Pert. to nonreproductive cells or tissues. **2.** Pert. to the body. **3.** Pert. to structures of the body wall, such as skeletal muscles (somatic musculature) in contrast to structures associated with the viscera, such as visceral muscles (splanchnic musculature). **4.** Pert. to sensations perceived as originating from superficial or muscular structures of the body rather than sensations seeming to come from the internal organs (the viscera).

somatization (sō'mä-tī-zä'shün) The process of expressing a mental condition as a disturbed bodily function.

somatization disorder A condition of recurrent and multiple somatic complaints of several years' duration for which medical attention has been sought but no physical basis for the disorder has been found. The disorder impairs social, occupational, or other forms of functioning. The age of onset is usually prior to 30. The somatic complaints may be related to virtually any organ system. If these occur in associa-

tion with a general medical condition, the physical complaints must be in excess of what would be expected from the medical illness. There must be a history of pain related to at least four different sites or functions such as menstruation, sexual intercourse, or urination. There also must be a history of at least two gastrointestinal symptoms other than pain. There must be a history of at least one sexual or reproductive symptom other than pain (e.g., nausea, vomiting, bloating). In women, this may consist of irregular menses, menorrhagia, or vomiting throughout pregnancy. In men, there may be symptoms such as erectile or ejaculatory dysfunction. Both sexes may be subject to sexual indifference. And there must also be a history of at least one symptom, other than pain, that suggests a neurological condition such as impaired coordination or balance, paralysis or localized weakness, difficulty in swallowing or speaking, urinary retention, hallucinations, loss of touch or pain sensation, double vision, blindness, deafness, seizures, amnesia, and loss of consciousness other than fainting. The unexplained symptoms are not intentionally feigned or produced. SEE: *somatiform disorder*.

somato-, somat- (sō'mā-tō) Combining form meaning *body*.

somatochrome (sō-māt'ō-krōm) [*"* + *chroma*, color] A nerve cell in which the nucleus is completely surrounded by cytoplasm.

somatocrinin (sō'māt-ō-krīn'īn) Growth hormone-releasing hormone.

somatiform disorder (sō-māt'ā-fōrm") A psychological disorder in which the physical symptoms suggest a general medical condition and are not explained by another condition such as a medication or another mental disorder. The symptoms must be clinically significant enough to impair function. A variety of conditions are included in this classification, including somatization disorder, conversion disorder, pain disorder, and hypochondriasis. Psychological factors are associated with and precede the condition. Symptoms may include loss of sense of touch, double vision, blindness, deafness, paralysis, and hallucinations. Individuals with conversion symptoms show "la belle indifference" or a relative lack of concern for their symptoms. The symptoms are not intentionally produced or feigned. The diagnosis cannot be established if the condition can be explained by the effects of medication or a neurological or other general medical condition. SYN: *conversion disorder*; *psychosomatic disease*. SEE: *Nursing Diagnoses Appendix*.

TREATMENT: The patient may benefit from reassurance, esp. when it is

provided by a trusted health care professional.

somatogenic (sō'mā-tō-jěn'īk) [*"* + *gennan*, to produce] Originating in the body. SEE: *psychogenic*.

somatome (sō'mā-tōm) [*"* + *tome*, incision] **1.** A device for cutting the body of the fetus. **2.** A somite.

somatomedin (sō'māt-ō-mē'dīn) Any of a group of insulin-like growth factors (somatomedin C and somatomedin A) that require growth hormone in order to exert their function of stimulating growth. These proteins are produced in the liver and other tissues.

somatometry (sō'mā-tōm'ē-trē) [*"* + *metron*, measure] Measurement of the body.

somatopathic (sō'mā-tō-pāth'īk) [*"* + *pathos*, disease, suffering] Pert. to organic illness, as distinguished from functional illness.

somatopause (sō-mā'tō-pawz) [*Gr.* *soma*, body, + *pausis*, cessation] The age-related decline in the secretion of growth hormone, typically noticeable after age 60. Treatments may include formal exercise programs or, in some instances, growth hormone replacement.

somatoplasm (sō-māt'ō-plāzm) [*Gr.* *soma*, body, + *LL.* *plasma*, form, mold] The cytoplasm of all the body cells as distinguished from that of the germ cells.

somatopsychic (sō'māt-ā-sī'kīk) [*"* + *psyche*, mind] Pert. to both body and mind.

somatopsychosis (sō'mā-tō-sī-kō'sīs) [*"* + *"* + *osis*, condition] Any psychological disorder that is a symptom of a bodily disease.

somatosensory evoked response (sō'mā-tō-sēn'sā-rē) ABBR: SER. Response produced by small, painless electrical stimuli administered to large sensory fibers in mixed nerves of the hand or leg. The electroencephalographical record of the character of the subsequent waves produced helps to determine the functional state of the nerves involved. SEE: *brainstem auditory evoked potential*; *evoked response*; *visual evoked response*.

somatosexual (sō'mā-tō-sēks'ū-āl) [*"* + *L.* *sexus*, sex] Concerning the body and sexual characteristics.

somatostatin (sō-māt'ō-stāt'īn) A peptide that regulates and inhibits the release of hormones by many different neuroendocrine cells in the brain, pancreas, and gastrointestinal tract. Somatostatin inhibits gastric motility and gastric acid secretion, blocks the exocrine and endocrine function of the pancreas, and inhibits the growth and release of hormones by neuroendocrine tumors. It is also used to treat variceal hemorrhage in patients with cirrhosis

and to treat pancreatitis. Octreotide is a synthetic version of somatostatin.

somatostatinoma (sō-măt'ō-stăt'ēn-ō-mă) An islet cell tumor that secretes somatostatin.

somatotonia (sō'mă-tō-tō'nē-ă) [" + *L. tonus*, a stretching] A personality type in which there is a predominance of physical assertiveness and activity.

somatotopic (sō'mă-tō-tōp'ik) [" + *topos*, place] Concerning the correspondence between a particular part of the body and a particular area of the brain.

somatotroph (sō-măt'ō-trōf) A cell or adenoma in the pituitary gland that secretes growth hormone.

somatotrophic (sō'mă-tō-trōf'ik) [" + *tropos*, a turning] 1. Having selective attraction for or influence on body cells. 2. Stimulating growth.

somatotropic (sō'mă-tō-trōp'ik) [" + *tropē*, a turn] Influencing the body or body cells.

somatotropin (sō'măt-ō-trō'pin) [" + *tropos*, a turning] Human growth hormone. It increases the rate of cell division and protein synthesis in growing tissues, mobilizes stored fats, and limits glucose production.

bovine recombinant s. A growth hormone made by recombinant methods. Its use in dairy cattle to increase milk production is controversial.

somatotype (sō-măt'ō-tīp) A particular build or type of body, based on physical characteristics. SEE: *ectomorph*; *endomorph*; *mesomorph*.

somesthetic (sō-mēs-thēt'ik) Pert. to sensations and sensory structures of the body.

somesthetic area The region in the parietal lobe of the cerebral cortex in which lie the terminations of the axons of general sensory conduction pathways. This area feels and interprets the cutaneous senses and conscious proprioceptive sense.

somesthetic path General sensory conduction path leading to the cortex.

somite (sō'mīt) [Gr. *soma*, body] Embryonic blocklike segment formed on either side of the neural tube and its underlying notochord. Each somite gives rise to a muscle mass supplied by a spinal nerve and each pair gives rise to a vertebra. The ventromedial portion of each somite differentiates into a sclerotome, and the remainder (the dorsolateral portion) becomes a dermomyotome. The sclerotomal cells surround the notochord and the neural tube to form the precursors of the ribs and vertebrae. The dermomyotomes give rise to the dermis and the dorsal muscles.

-somm Combining form meaning *sleep*.

somnambulism (sōm-năm'bū-līzm) [*L. somnus*, sleep, + *ambulare*, to walk] Sleepwalking.

somnifacient (sōm-nī-fă'shēnt) [" + *fa-*

cere, to make] 1. Producing sleep. SYN: *hypnotic*. 2. A drug producing sleep. SYN: *soporific*.

somniferous (sōm-nīf'ēr-ūs) [" + *ferre*, to bear] Sleep-producing; pert. to that which promotes sleep.

somniloquism (sōm-nīl'ō-kwīzm) [" + " + *-ismos*, condition] Talking in one's sleep.

somnolence (sōm'nō-lēns) [*L. somnolentia*, sleepiness] Prolonged drowsiness or sleepiness. **somnolent**, *adj.*

somnolence syndrome Excessive drowsiness, impaired concentration, fatigue, and low-grade fevers in individuals exposed to radiation therapy, esp. radiation to the head.

somnolentia (sōm'nō-lēn'shē-ă) [*L.*] 1. Drowsiness. 2. The sleep of drunkenness in which the faculties are only partially depressed.

somnolism (sōm'nō-līzm) [" + *-ismos*, condition] The condition of being in a hypnotic trance.

Somogyi phenomenon (sō'mō-jē) [Michael Somogyi, U.S. biochemist, 1883–1971] In diabetes mellitus, rebound hyperglycemia following an episode of hypoglycemia caused by counterregulatory hormone release. Reduction of the insulin dose will help control this condition. SEE: *dawn phenomenon*; *diabetes mellitus*.

son-, sono- Combining forms meaning *sound*.

sonē (sōn) [*L. sonus*, sound] A unit of loudness; the loudness of a pure tone of 1000 cycles per second, 40 decibels above the listener's threshold of hearing.

sonic (sōn'ik) [*L. sonus*, sound] Pert. to sound.

sonicate (sōn'ī-kăt) [*L. sonus*, sound] To expose to sound waves.

sonication (sōn'ī-kă'shūn) Exposure to high-frequency sound waves. The technique is used to destroy bacteria, hemolyze blood, and loosen substances adhering to materials such as surgical instruments.

sonogram (sō'nō-grăm) [*L. sonus*, sound, + Gr. *gramma*, something written] The record obtained by use of ultrasonography. SYN: *echogram*.

sonographer (sō-nōg'ră-fēr) An individual professionally trained to use ultrasound in the setting of other available clinical information to obtain images of anatomical structures, physiological processes, and disease states for diagnostic purposes. In the U.S., professional societies of sonographers include the Society of Diagnostic Medical Sonographers and the American Society of Echocardiography. Professionally certified sonographers are credentialed by the American Registry of Diagnostic Medical Sonographers.

diagnostic medical s. One who pro-

vides patient services for those using diagnostic ultrasound under the supervision of a doctor of medicine or osteopathy.

ophthalmic s. An individual professionally trained to perform diagnostic evaluations of the eye and its diseases, including examinations for ophthalmic foreign bodies, tumors, radiation injuries, inflammatory diseases, and vascular lesions as well as measurements of axial length (e.g., in cataract surgeries and intraocular lens implantation). In the U.S., professionally trained ophthalmic sonographers are certified in their specialty by the American Registry of Diagnostic Medical Sonographers.

sonography (sō-nōg'rá-fē) [*ʹ* + Gr. *graphein*, to write] Ultrasonography.

sonohysterography (sō'nō-his'tē-rōg'rā-fē, sō'nō) [L. *sonus*, sound + *ʹ*] Instillation of 10 to 20 ml of saline into the uterus to enhance ultrasonic imaging and help determine the cause of abnormal uterine bleeding, female infertility, or to identify uterine masses.

sonolucent (sō'nō-loo'sént) Capable of transmitting sound waves, rather than reflecting them to an ultrasound transducer. Said of anatomical structures that are fluid-filled rather than solid, such as the gallbladder or urinary bladder. In ultrasonography, these structures appear dark. SYN: *anechoic*.

sonometer (sō-nōm'ē-tēr) [*ʹ* + Gr. *metron*, a measure] A noninvasive device that uses ultrasonic energy to measure bone mineral density.

sonorous (sō-nō'rūs) [L.] Giving forth a loud and rounded sound.

sopor (sō'por) [L.] Stupor. **soporose**, **soporous**, *adj.*

soporific (sō-pō-rif'ik) [*ʹ* + *facere*, to make] 1. Inducing sleep. 2. Narcotic; a drug producing sleep. SYN: *sonnifacient*.

SOR Sexual offense registry.

sorbefacient (sor'bē-fā'shént) [L. *sorbere*, to suck up, + *facere*, to make] Causing or that which causes or promotes absorption.

sorbitol (sor'bi-tōl') C₆H₁₄O₆; a crystalline alcohol present in some berries and fruits. It is used as a sweetening agent and as an excipient in formulating tablets. Ingesting large amounts of sorbitol can produce abdominal cramps, gaseous distention of the intestines, and diarrhea.

sordes (sor'dēz) [L. *sordere*, to be dirty] Crusts or accumulations of food and bacteria on the teeth and about the lips.

PATIENT CARE: The nurse prevents this condition by providing frequent oral hygiene for mouth breathers, patients who cannot drink or are not permitted oral fluids, and debilitated patients. A hydrogen peroxide mouthwash (one part hydrogen peroxide to three

parts water) or glycerin applied with a soft brush or sponge-stick may be used to remove crusts. Either treatment should always be followed by rinsing with clear water (mouthwashes are astringent, and glycerin dries the mucous membranes). The nurse encourages oral intake if permitted and positions the patient to discourage mouth breathing. If fluids are restricted, the patient or care provider should use a water mist or spray to moisten membranes.

sore (sor) [AS. *sar*, sore] 1. Tender; painful. 2. Any type of tender or painful ulcer or lesion of the skin or mucous membrane.

bed s. Decubitus ulcer.

canker s. Aphthous ulcer.

cold s. Thin-walled blister at the junction of the mucous membranes of the mouth and lips, caused by recurrent infection with herpes simplex virus (HSV) in persons who already have antibodies to HSV. Treatment is recommended only for immunocompromised patients, who are given acyclovir. SEE: *fever blister*.

Delhi s. Cutaneous leishmaniasis.

desert s. An ulcer of the skin of the arms or legs, sometimes caused by diphtheria or staphylococci, and typically contracted in Australia or Burma.

hard s. A syphilitic chancre; primary lesion of syphilis.

jungle s. Infection of the skin or of poorly tended wounds by *Corynebacterium diphtheriae*, esp. in warm, moist, tropical climates.

Oriental s. Cutaneous leishmaniasis.

pressure s. SEE: *pressure sore*.

tropical s. Cutaneous leishmaniasis.

sore throat Inflammation of the tonsils, pharynx, or larynx.

septic s.t. Bacterial pharyngitis.

streptococcal s.t. Pharyngitis caused by group A beta-hemolytic streptococci. SEE: *scarlet fever*.

sorption (sorp'shūn) [L. *sorbere*, to suck in] The condition of being absorbed.

s.o.s. [L., *si opus sit*] If necessary or required.

Sotos syndrome (sō'tōs) A rare developmental disorder in which cerebral gigantism is associated with scoliosis. Affected children often have behavioral and psychiatric problems, mental retardation, and seizures.

souffle (soof'fl) [Fr. *souffler*, to puff] A soft blowing sound heard in auscultation; a bruit; an auscultatory murmur.

cardiac s. Cardiac murmur.

fetal s. A purring sound heard over the pregnant uterus and having the same rate as the fetal heartbeat. The sound is caused by blood flowing through vessels in the umbilical cord. SYN: *funic souffle*.

funic s. Fetal s.

placental s. The loud blowing mur-

mur heard along the side of the uterus, caused by blood entering the dilated arteries of the uterus in the last months of pregnancy and synchronous with the maternal pulse. SYN: *uterine souffle*.

splenic s. The sound heard over the spleen in various diseases.

umbilical s. SEE: *umbilical souffle*.

uterine s. Placental s.

sound (sownd) [L. *sonus*, sound] **1.** Auditory sensations produced by vibrations; noise. It is measured in decibels (dB), which is the logarithm of the intensity of sound; thus 20 dB represents not twice 10 dB but 10 times as much. Repeated exposure to excessively loud noises, esp. in certain frequencies, will cause permanent injury to the hearing. SEE: *decibel*; *noise*; *sonic boom*. **2.** A form of vibrational energy that gives rise to auditory sensations. SEE: *cochlea*; *ear*; *organ of Corti*; *sonic boom*. **3.** Healthy, not diseased. **4.** Heart sounds. SEE: *diastole*; *systole*. **5.** A long, cylindrical tool used in invasive procedures to explore or measure body cavities.

absent breath s. The lack of any sound heard over the chest of the patient during auscultation.

ETIOLOGY: Absent breath sounds can be caused by a lack of breathing (apnea) or by lung disorders that block the transmission of the sounds to the surface of the chest (e.g., pneumothorax, pleural effusion).

adventitious lung s. Crackles and wheezes superimposed on the normal breath sounds; indicative of respiratory disease. Most adventitious lung sounds can be divided into continuous (wheezing) and discontinuous (crackles) according to acoustical characteristics.

blowing s. An organic murmur as of air from an aperture expelled with moderate force.

bottle s. A noise such as fluid in a bottle. SEE: *amphoric*.

bowel s. The normal sounds associated with movement of the intestinal contents through the alimentary tract. Auscultation of the abdomen for bowel sounds may provide valuable diagnostic information. Absent or diminished sounds may indicate paralytic ileus or peritonitis. High-pitched tinkling sounds are associated with intestinal obstruction.

breath s. Respiratory sounds heard on auscultation of the chest. In a normal chest, they are classified as vesicular, tracheal, and bronchovesicular.

bronchial s. Sounds not heard in the normal lung but occurring in pulmonary disease, indicating infiltration and solidification of the lung. SEE: *bronchial breathing*.

bronchovesicular s. A mixture of bronchial and vesicular sounds.

coarse breath s. A vesicular lung

sound that is lower pitched and louder than normal.

ETIOLOGY: Pneumonia, atelectasis, pulmonary edema, and other conditions may cause this type of breath sound.

cracked-pot s. A tympanic resonance heard over air cavities. This percussion sound resembles that made by striking a cracked pot.

diminished breath s. A soft, decreased, or distant vesicular lung sound as heard through a stethoscope.

ETIOLOGY: Diminished breath sounds are common in patients with poor respiratory effort, splinting, emphysema, and other lung conditions.

ejection s. Any noise made during cardiac systole by the valves of the heart or the root of the aorta.

fetal heart s. The sound made by the fetal heart.

friction s. A sound produced by rubbing together two inflamed mucous surfaces.

heart s. The two sounds "lubb" and "dupp" heard when listening to the heart with a stethoscope. They arise from valve closure and muscular structures in the heart and are technically called S₁ and S₂. Third and fourth heart sounds may be present in some heart diseases.

physiological s. A sound perceived when the auditory canals are closed. The sound is produced by the blood flowing through adjacent vessels.

respiratory s. Any sound heard over the lungs, bronchi, or trachea.

succussion s. A splashing sound heard over a cavity with fluid in it.

to-and-fro s. Rasping friction sounds of pericarditis.

tracheal s. A sound normally heard over the trachea or larynx.

tubular s. A sound heard over the trachea or large bronchi.

urethral s. A device suitable for use in exploring the urethra.

vesicular s. A normal breath sound heard over the entire lung during breathing.

white s. A sound made up of all audible frequencies.

sound [Fr. *sonder*, to probe] An instrument for introduction into a cavity or canal for exploration. SYN: *searcher*.

sound-conducting apparatus Those parts of the acoustic apparatus that transmit sound.

Souques' phenomenon (soo-kēz') [A. A. Souques, Fr. neurologist, 1860-1944] Finger extension on the involved side of a hemiplegic patient when the extremity is raised to a position 90° above shoulder flexion or abduction.

source The initiator of an epidemic disease, e.g., the patient who spreads an illness to others, or the location from which an epidemic spreads (e.g., a

“food source,” a “source of contaminated water”).

Southern Blot test An analytical method traditionally used in DNA analysis. After a sample of DNA fragments is separated by agarose gel electrophoresis, the fragments are transferred to a solid cellulose support by blotting. The gel is placed between a concentrated salt solution and absorbent paper. Capillary action draws the fragments onto the solid support. The support is then treated with radiolabeled DNA probes.

Southern tick-associated rash illness ABBR: STARI. An expanding red rash, similar in appearance to erythema migrans, the rash found in Lyme disease. It results from the bite of the tick *Amblyomma americanum*, found in the southeastern U.S. Ticks of this species may harbor the spirochete *Borrelia lonestari*, which produces the rash.

Southey's tube (sūth'ēz) A very small tube pushed into tissue to help drain edema fluid. It is used in severe congestive heart failure to relieve edema of the legs.

sowda (sou'dah) Onchocerciasis; river blindness.

soybean (soy'bēn') [via Dutch or NL. fm. Japanese fm. Chinese + bean] A legume (*Glycine max*) used as a source of several nitrogen-rich foods, including beverages, curd (tofu), flour, textured meat substitutes, and oils. Forty percent of raw soybean is protein. The bean can be processed to remove its oils and carbohydrates to isolate soy protein, a foodstuff containing all of the essential amino acids. In the U.S., most of the soybean crop has been genetically modified to make the plant resistant to commercial weed killers.

soybean oil A commonly used oil obtained from the seeds of the soya plant that is low in unsaturated fat and rich in linolenic acid, an essential fatty acid.

sp [L., *spiritus*] *spirit*; *species*.

spa (spā) [Spa, a Belgium resort town] A mineral spring, esp. one allegedly having healing properties.

space (spās) [L. *spatium*, space] **1.** An area, region, or segment. **2.** A cavity of the body. SYN: *spatium*. **3.** The expanse in which the solar system, stars, and galaxies exist; outside the Earth's atmosphere.

anatomical dead s. The area in the trachea, bronchi, and air passages containing air that does not reach the alveoli during inspiration and is not involved in gas exchange. SYN: *dead space*; *deadspace*. SEE: *physiological dead s.*

circumlental s. The space between the equator of the lens and the ciliary body.

closest speaking s. The space between the teeth during casual repetition

of the sound “s.” This is considered the closest relationship of the occlusal surfaces and incisal edges of the mandibular teeth to the maxillary teeth during function and rapid speech.

dead s. **1.** Anatomical dead s. **2.** The unobliterated space remaining after closure of a surgical wound. This space favors the accumulation of blood and eventually infection.

EC s. *extracellular space.*

epidural s. The space outside the dura mater of the brain and spinal cord.

extracellular s. The space between cells. It contains tissue fluid, the water derived from plasma in the adjacent capillaries. The water flows among capillaries, tissue spaces, and cells. SEE: *extracellular fluid.*

s. of Fontana Spaces in scleral meshwork in angle of the iris through which the aqueous humor passes from the anterior chamber to the canal of Schlemm.

intercostal s. The interval between ribs, filled by the intercostal muscles.

interfascial s. Tenon's space.

interglobular s. Czernak's spaces.

interpleural s. Mediastinum.

interproximal s. The space between the surfaces of adjacent teeth in the dental arch. It is divided into the septal space, gingival to the contact point of the teeth and occupied normally by the interdental papilla of the gingiva, and the embrasure, the space occlusal to the contact point of the teeth.

interradicular s. The area between the roots of a multiradical tooth, which contains an alveolar bony septum and the periodontal ligament.

intervillous s. Any area of the maternal side of the placenta where transfer of maternal oxygen, nutrients, and fetal wastes occurs.

joint s. Joint cavity.

loose s. A distensible lung interstitial tissue surrounding the acinus and terminal bronchioles.

Meckel's s. Cavum trigeminale.

medullary s. The marrow-containing area of cancellous bone.

palmar s. The midpalmar and thenar spaces of the hand.

parasinoideal s. Lateral spaces in the dura mater adjacent to the superior sagittal sinus that receive meningeal and diploic veins.

perforated s. The space pierced by blood vessels at the base of the brain.

periodontal ligament s. ABBR: PDL space. A radiolucent space that appears on a dental radiograph between the tooth and the adjacent lamina dura. The space is occupied by the periodontal ligament, which lacks the density to be radiopaque.

perivascular s. The spaces within adventitia of larger blood vessels of the

brain. They communicate with the subarachnoid space.

personal s. In psychiatry, an individual's personal area and the surrounding space. This space is important in interpersonal relations and in personal feelings of security and privacy.

physiological dead s. In the respiratory tract, any nonfunctional alveoli that do not receive air that participates in gas exchange. Possible causes include emphysema, pneumothorax, pneumonia, pulmonary edema, and constriction of bronchioles. SEE: *anatomical dead s.*

plantar s. One of four spaces between the fascial layers of the foot. When the foot is infected, pus may be found there.

pleural s. The potential space between the visceral and parietal pleura. In some diseases and conditions the space fills with air, blood, lymph, or malignant tumors. Air in the pleural space is called *pneumothorax*. Blood in the space is called *hemothorax*. Lymph accumulations in the pleural space are called *chylothorax*. Malignant tumors that may fill the pleural space include mesothelioma or metastatic lung or breast cancers, among others.

pneumatic s. Air-containing spaces in bone, esp. those in the paranasal sinuses.

popliteal s. The space in back of the knee joint, containing the popliteal artery and vein and small sciatic and popliteal nerves.

prezonular s. The anterior portion of the posterior chamber of the eye.

retroperitoneal s. The potential space outside the parietal peritoneum of the abdominal cavity.

retropharyngeal s. The space behind the pharynx separating prevertebral from visceral fascia. Important as a possible path for the spread of infection from oral cavity trauma downward to visceral organs of the mediastinum.

subarachnoid s. The space between the pia mater and the arachnoid, containing the cerebrospinal fluid.

subumbilical s. The triangular space within the body cavity below the navel.

suprasternal s. Triangular space immediately above the sternum between layers of deep cervical fascia.

Tenon's s. SEE: under *Tenon, Jacques R.*

thenar s. A deep fascial space in the hand lying anterior to the adductor pollicis muscle.

tissue s. Any space within tissues not lined with epithelium and containing tissue fluid.

zonular s. Spaces within the zonule (suspensory ligament of lens). SEE: *dead space.*

space maintainer Device fashioned to keep teeth separated when placed across an edentulous segment of the

dental arch. It may consist of bands, bars, springs, or other materials, and is cemented or soldered to orthodontic bands or crowns on the adjacent teeth.

space medicine The branch of medical science concerned with the physiological and pathological problems encountered by humans who enter the area beyond the earth's atmosphere. Included in space medicine are investigation of effects of weightlessness (zero gravity), sensory deprivation, motion sickness, enforced inactivity during lengthy travels in space, and the heat and decelerative forces encountered at the time of reentry into the earth's atmosphere. With prolonged flights into space, a number of medical problems have arisen, including anemia and loss of blood volume, and loss of bone and muscle mass. These changes also make adjustment to gravity after returning to earth difficult.

spacer (spā'sēr) A hollow tube that improves the delivery of inhaled aerosols, such as beta₂ agonists, steroids, and other antiasthmatic drugs, to the bronchi and lungs. Spacers form a channel between metered dose inhalers and the mouth through which medicated mists can be inhaled. They improve the performance of antiasthmatic drugs because without them, a large quantity of inhaled medications end up in the mouth, on the palate, on the buccal mucosa, or on the tongue and fail to reach their intended target in the lower airways.

spacer oligotyping Spoligotyping.

spacer sequence, spacer DNA The genetic material on a chromosome that separates actively transcribed genes. It may make up the largest part of the genome of some eukaryotic organisms and often consists of tandem repeats of DNA.

spallation (spawl-lā'shūn) **1.** The process of breaking into very small parts. The term may be applied to gross structures or to atomic particles. **2.** The release of inert particles into the bloodstream. An example would be the splintering of bits of plastic from the pump used in hemodialysis.

span 1. The distance from one fixed point to another, as the distance, when the hand is fully expanded, from the tip of the thumb to the tip of the little finger. **2.** A length of time. The duration of a process.

attention s. The duration of sustained concentration on a task or activity. SEE: *hyperactivity (2); attention deficit-hyperactivity disorder.*

digit s. A test of memory and attention. SEE: *digit span test.*

memory s. The number of words or objects one can store and recall when asked to do so. SEE: *digit span test.*

sparer (spär'ēr) [AS. *sparian*, to refrain] A substance destroyed by catabolism that decreases catabolic action on other substances.

nitrogen s. Protein s.

protein s. Carbohydrates and fats, so designated because their presence in the diet prevents tissue proteins from being used as a source of energy.

sparganosis (spär'gā-nō'sis) Infestation with spirometra.

sparing 1. The use of one medicine in place of another, usually to prevent side effects from high doses of the first medicine (e.g., steroid-sparing). 2. Protective; said of certain surgical operations that preserve vital tissues and their function.

spasm (spāzm) [Gr. *spasmos*, convulsion] An involuntary sudden movement or muscular contraction that occurs as a result of some irritant or trauma. Spasms may be clonic (characterized by alternate contraction and relaxation) or tonic (sustained). They may involve either visceral (smooth) muscle or skeletal (striated) muscle. When contractions are strong and painful, they are called cramps. The effect depends on the part affected. Asthma is assumed to be associated with spasm of the muscular coats of smaller bronchi; renal colic to spasm of the muscular coat of the ureter.

TREATMENT: General measures to reduce tension, induce muscle relaxation, and improve circulation are needed. Specific measures include analgesics, massage, relaxation exercises, therapeutic modalities such as heat, cold, or electrotherapy, and, in some cases, gentle therapeutic exercises. Special orthopedic supports or braces are sometimes effective. For vascular spasm, chemical sympathectomy may give relief.

bronchial s. Bronchospasm.

carpal s. Involuntary contraction of the muscles of the hand. SEE: *tetany*.

carpopedal s. Involuntary muscular contraction of the hands and feet, sometimes seen in hyperventilation syndrome. It is caused by hypocalcemia and commonly encountered during hyperventilation because the lowered carbon dioxide alters the level of ionized calcium. SEE: *hyperventilation tetany*.

choreiform s. Spasmodic movements resembling chorea.

clonic s. Intermittent contractions and relaxation of muscles. SYN: *clonospasm*.

coronary s. Muscular closure of the coronary arteries, causing angina, ischemia, or myocardial infarction. SEE: *Prinzmetal's angina*.

diffuse s. An esophageal motor disorder characterized by dysphagia, odynophagia, and chest pain.

esophageal s. Intermittent inability to swallow, often associated with intense chest pain, gagging, or difficulty breathing. It can occur after swallowing cold liquids taken through a straw or may occur in such diverse diseases as rabies, anxiety or depression, or achalasia. In most patients, it is caused by excessive motor function of the esophageal muscles.

TREATMENT: Nitrates or tricyclic antidepressants are sometimes used to treat the symptoms. Diffuse esophageal spasms can also be treated by surgical division of the esophageal muscles.

habit s. Tic.

hemifacial s. Twitching of facial muscles that usually begins in one eyelid but may generalize after many years to half of the face or even to both sides of it. It usually results from an aneurysm of the vertebral or basilar artery or a tumor of the cerebellopontine angle. In some patients, the twitching can be treated with injections of botulinum toxin if the underlying cause is not treatable.

infantile s. Seizure activity marked by momentary flexion or extension of the neck, trunk, extremities, or any combination, with onset occurring in the first year of life. Although infantile spasms subside in late infancy, many affected children develop other types of seizure activity and may be severely retarded.

nodding s. A psychogenic condition in adults, causing nodding of the head from clonic spasms of the sternomastoid muscles. A similar nodding occurs in babies, with the head turning from side to side. SYN: *salaam convulsion*.

saltatory s. A tic of the muscles of the lower extremity, causing convulsive leaping upon attempting to stand. SEE: *Jumping Frenchmen of Maine*; *miryachit*; *palmus* (2); *Tourette's syndrome*.

tetanic s. A spasm in which contractions occur repeatedly and without interruption.

tonic s. Continued involuntary contractions.

torsion s. A spasm characterized by a turning of a part, esp. the turning of the body at the pelvis.

toxic s. Convulsions due to poison.

winking s. Blepharospasm.

spasmogen (spāz'mō-jën) [n + *gennan*, to produce] Something that causes spasms or constrictions, such as in the bronchospasm associated with asthma.

spasmolytic (spāz-mō-lit'ik) [n + *lysis*, dissolution] Arresting spasms or that which acts as an antispasmodic.

spasmophilia (spāz-mō-fil'e-ä) [n + *philein*, to love] Tetany.

spasmous (spāz'mūs) [Gr. *spasmos*, convulsion] Of the nature of a spasm.

spastic (spās'tik) [Gr. *spastikos*, convul-

side] 1. Resembling or of the nature of spasms or convulsions. 2. Produced by spasms. 3. One afflicted with spasms.

spastic colon Irritable colon.

spastic gait SEE: under *gait*.

spastic hemiplegia SEE: under *hemiplegia*.

spasticity (späs-tis'ī-tē) A motor disorder characterized by velocity-dependent increased muscle tone, exaggerated tendon jerks, and clonus. Spasticity is the result of an upper motor neuron lesion (i.e., found in the spinal cord or brain rather than in one of the peripheral nerves).

PATIENT CARE: Spasticity can cause abnormal and variable movement patterns and restriction of range of motion. Physical and occupational therapy are used to improve range of motion and use of affected limbs. Medications, such as muscle relaxants (baclofen or diazepam) or botulinum toxin can alleviate spasticity and improve function.

spatial (spā'shāl) Pert. to space.

spatial discrimination The ability to perceive as separate points of contact the two blunt points of a compass when applied to the skin.

spatial localization disorder An inability to describe or to find the way even though in familiar surroundings. This neurological condition is usually due to bilateral occipitoparietal lesions of the brain.

spatial resolution In radiology, the ability to distinguish two adjacent points of similar density as being separate.

spatium (spā'shē-ūm) *pl.* **spatia** [L.] Space.

spatter (spät'ēr) The distribution of droplets into the air or onto solid surfaces, as a result of injuries to blood vessels (blood spatter) or during dental or surgical procedures. In health care, spatter is a potential source of exposure to infectious body fluids. In forensic medicine, the characteristics of spattered fluids are used to reconstruct crime scenes.

spatula (späch'ū-lā) [L. *spatula*, blade] An instrument for spreading or mixing semisolids. It is usually flat, thin, somewhat flexible, and shaped like a knife without a cutting edge. It may be used in blunt dissection of soft tissues (e.g., brain).

cervical s. A blade, often made of wood or plastic, with an indented tip adapted to ensure sampling during a Papanicolaou test of the squamous cells of the endocervix of the uterus.

nasal s. A device for holding mucous flaps in place or to guard against burning from cautery.

spatulate (späch'ū-lāt) To mix something by use of a spatula. In dentistry, to mix or manipulate certain dental ma-

terials with a spatula to achieve a uniform, homogeneous mass.

spay, spaying (spā, spā'ing) [Gael. *spoth*, castrate] Surgical removal of ovaries, usually said of animals. SEE: *castration*.

SPCA *Society for the Prevention of Cruelty to Animals.*

spear tackler's spine Injury to the cervical spine resulting from players using their heads as a primary point of impact with their opponents' bodies in contact sports such as football or soccer. This condition is considered an absolute contraindication to participation in contact sports in which high-energy axial loads may be applied to the cervical spine because it markedly heightens the risk of nerve injury or paralysis. Spear tackler's spine is based on four criteria identified by Joseph Torg:

1. developmental stenosis of the cervical vertebral canal;

2. loss of the normal lordotic cervical curvature;

3. roentgenographic evidence of post-traumatic abnormalities of the cervical spine; and

4. a history of axial loads delivered to the cervical spine.

specialist (spësh'äl-ist) [L. *specialis*] A dentist, nurse, physician, or other health professional who has advanced education and training in one clinical area of practice such as internal medicine, pediatrics, surgery, ophthalmology, neurology, maternal and child health, or cardiology. In most specialized areas of health care, there are organizations offering qualifying examinations. When an individual meets all of the criteria of such a board, he or she is called "board certified" in that area.

specialization (spësh'äl-i-zā'shün) The limitation of one's practice to a particular branch of medicine, surgery, dentistry, or nursing. This is customarily done after having received postgraduate training in the area of specialization.

special need Any disability or functional limitation, e.g., attention deficit disorder, autism, blindness, deafness, or impaired mobility.

specialty (spësh'äl-tē) The branch of medicine, surgery, dentistry, or nursing in which a specialist practices.

specialty hospital 1. A hospital that provides a limited range of services (e.g., orthopedic surgery, ophthalmology, or obstetrics). 2. A hospital in which two thirds of Medicare patients receive care for just two Diagnosis-Related Groups (DRGs), or a hospital in which two thirds of patients are assigned for outpatient surgical procedures.

speciation (spē'sē-ā'shün) [L. *species*, a kind] 1. The evolutionary process by which new species of living organisms are formed. 2. The identification of the

species of an organism, e.g., of an infectious bacterium.

species (spē'shēz) [L. *species*, a kind] In biology, a category of classification for living organisms. This group is just below the genus and is usually capable of interbreeding.

species jump The transfer of a pathogen, especially one considered species-specific, to a new host species, e.g., Hantavirus from mice to humans.

species-specific The characteristics of a species, esp. the immunological nature that differentiates that species from another.

species type The original species that served as the basis for identifying a new genus or subgenus.

specific (spē-sif'ik) [L. *specificus*, pert. to a kind] **1.** Referring to a remedy having a curative effect on a particular disease or symptom. **2.** Pert. to a species. **3.** Referring to a disease always caused by the same organism. **4.** Restricted, explicit; not generalized.

specific dynamic action of food Thermic effect of food.

specific gravity ABBR: sp. gr. The weight of a substance compared with the weight of an equal volume of water. For solid and liquid materials, water is used as a standard and considered to have a specific gravity of 1.000. For gases, the weight per unit volume is compared with that of dry air at a specified temperature and usually at atmospheric pressure.

specificity (spē-si-fis'ī-tē) The state of being specific; having a relation to a definite result or to a particular cause.

antigenic s. The property of mature B and T lymphocytes that enables them to respond to specific foreign antigens entering the body. Antigen specificity requires mature B and T cells that have been previously exposed to the antigen and, therefore, are able to recognize it again and respond by neutralizing or destroying it. The exact process by which B lymphocytes become capable of recognizing and responding to antigens is unknown. Development of antigen specificity by T cells requires macrophage processing of the antigen for recognition.

diagnostic s. For a diagnostic or screening test, the proportion of people who are truly free of a specific disease and are so identified by the test. SEE: *sensitivity*.

s. of exercise The design of exercises to stress muscles in a manner similar to the way in which they are to perform. This technique helps the muscle to meet specific demands, including speed and type of contraction, strength and endurance requirements, stabilization, and mobility activities.

specific therapy Administration of a rem-

edy acting directly against the cause of a disease, as penicillin for syphilis or acyclovir for herpes simplex virus. SEE: *nonspecific therapy*.

specific treatment Treatment directed at the cause of a disease.

specimen (spēs'ī-mēn) [L. *specere*, to look] A part of something, intended to show the kind, quality, and other characteristics of the whole. Collected urine, feces, cerebrospinal fluid, sputum, blood, skin, or tissues are all considered to be specimens.



Persons handling specimens of blood, body fluids, or other excretions should wear protective gloves to limit exposure to infectious agents, such as the hepatitis viruses.

The following information is important in obtaining, containing, and handling biological and forensic samples.

Sterilization of glassware: This is accomplished by the use of hot air or dry heat, boiling water, flowing steam, steam under pressure, certain gases, and germicidal chemicals.

Labels: All containers should be labeled with the names of the patient and attending physician and the room number. Labels should be placed on the container, not on the lid. Request forms, sometimes used as labels, are made up to suit the individual laboratory or hospital. Provision is made for recording necessary data as indicated, including the date the specimen was taken, the circumstances, the substances for which the examination is being performed, and any other information desired. SEE: *chain of custody*.

Time: If the required specimen cannot be furnished at once, one should note what is needed and inform the patient, supervisor, and any other caregiver who may attend the patient in one's absence.

Charting: The chart should record all specimens sent to the laboratory, when they were sent, and any other data that seem pertinent such as the appearance of the specimen or unusual occurrences while it was being obtained.

Care of specimen: The specimen should be covered immediately after it is deposited in the container. The label or request form should be checked. One should make sure that the container is intact and in no danger of spilling while in transit. Some types of specimens (e.g., blood, urine, tissues) will need special care with respect to the temperature to be maintained while they are stored or transported and the time allowed before being analyzed. SEE: *Standard and Universal Precautions Appendix*.

speckle A grainy distortion (a kind of "noise") in an ultrasonographic image.

spectacles (spĕk'tāk-lz) [L. *spectare*, to see] Glasses.

spectating (spĕk'tā-tĕr-ĭng) Paying excessive attention to oneself; excessive self-monitoring or self-absorption. It is a psychological characteristic of some individuals with social anxiety and/or sexual dysfunction.

spectral (spĕk'trāl) [L. *spectrum*, image] Concerning a spectrum.

spectrin (spĕk'trĭn) An intracellular, calcium-dependent contractile protein that helps maintain the structure and shape of cells, esp. red blood cells.

spectro- Combining form meaning *appearance, image, form, or spectrum*.

spectrocolorimeter (spĕk-trō-kŭl-or-ĭm'ĕ-tĕr) [L. *spectrum*, image, + *color*, color, + Gr. *metron*, measure] A device for detecting color blindness by isolating a single spectral color.

spectrofluorometer (spĕk'trō-floo'or-ōm'ĕ-tĕr) An instrument that measures the degree and frequencies of fluorescence of compounds in chemical reactions or in solution.

spectrograph (spĕk'trō-grāf) [ʹ + Gr. *graphein*, to write] An instrument designed to photograph spectra on a sensitive photographic plate.

mass s. A device that separates ions of different masses by employing a magnetic field to deflect them as they travel along a given path.

spectrometer (spĕk-trōm'ĕt-ĕr) [ʹ + Gr. *metron*, measure] A spectroscopy so constructed that angular deviation of a ray of light produced by a prism or by a diffraction grating thus indicates the wavelength.

spectrometry (spĕk-trōm'ĕ-t-rĕ) [ʹ + Gr. *metron*, measure] The process of determining the wavelength of light rays by use of a spectrometer.

mass s. A process that separates and identifies molecules by ionizing them, assessing their ratio of mass to ionic charge, and measuring the electrical current they generate.

tandem mass s. ABBR: MS/MS. An analytical device that can rapidly assess the biochemical makeup of hundreds of specimens by measuring the mass-to-charge ratio of molecules. SYN: *tandem mass assay*. SEE: *high-performance liquid chromatography*; *mass spectrometry*.

PATIENT CARE: It is used in clinical laboratories to screen newborn infants for metabolic disorders such as fatty acid oxidation deficiencies, organic acid disorders, and congenital adrenal hyperplasia.

spectrophotometer (spĕk'trō-fō-tōm'ĕt-ĕr) [ʹ + Gr. *photos*, light, + *metron*, measure] An instrument that measures the transmission of a specified

light wavelength through a material (e.g., a material in solution). Contrasting the light transmission through a standard solution and the test solution, one can determine a variety of characteristics of the material, esp. its concentration.

spectrophotometric analysis (spĕk'trō-fō'tō-mĕ'trĭk) Determination of materials in a compound by measuring the amount of light they absorb in the infrared, visible, or ultraviolet region of the spectrum.

spectrophotometry (spĕk'trō-fō-tōm'ĕt-rĕ) An estimation of coloring matter in a solution by use of the spectroscopy or spectrophotometer.

spectropolarimeter (spĕk'trō-pō'lār-ĭm'ĕ-tĕr) [ʹ + *polaris*, pole, + *metron*, measure] A device for measuring the rotation of light rays of a specific wavelength by passage through a translucent solid.

spectroscope (spĕk'trō-skōp) [ʹ + Gr. *skopein*, to examine] An instrument for separating radiant energy into its component frequencies or wavelengths by means of a prism or grating to form a spectrum for inspection.

spectroscopic (spĕk'trō-skōp'ĭk) Concerning a spectroscopy.

spectroscopy (spĕk-trōs'kō-pĕ) **1.** The branch of physical science that treats the phenomena observed with the spectroscopy, or those principles on which the action is based. **2.** The art of using the spectroscopy.

infrared absorption s. A technique that uses the infrared absorbing properties of molecules to determine their presence in tissues or body fluids. A common clinical application is in the design of oximeters. SEE: *oximeter*.

nuclear magnetic resonance s. ABBR: NMR spectroscopy. A technique that uses the characteristic absorption of nuclei inside a strong magnetic field to identify and characterize molecules.

spectrum (spĕk'trŭm) *pl.* **spectra** [L., image] **1.** The charted band of wavelengths of electromagnetic vibrations obtained by refraction and diffraction of rays of white light. **2.** The range or breadth of a phenomenon; the distribution of values in an array.

absorption s. Spectrum recorded after light rays have passed through a substance capable of absorbing some of the wavelengths passing through. This spectrum is specific for various chemicals.

broad s. Having the ability to treat a wide variety of conditions or infections.

chromatic s. The portion of the spectrum that produces visible light. Wavelengths of about 3900 Å to 7700 Å are visible.

invisible s. The portion of the spectrum either below the red (infrared) or

above the violet (ultraviolet), which is invisible to the eye, the waves being too long or too short to affect the retina. The invisible spectrum includes rays less than 3900 Å in length (ultraviolet, roentgen or x, gamma, and cosmic rays) and those exceeding 7700 Å in length (infrared, high-frequency oscillations used in short- and long-wave diathermy, radio, hertzian, and very long waves). These range in length from 7700 Å to 5,000,000 m.

narrow s. Having a limited span of action against only a few diseases, conditions, or pathogens.

visible s. The portion of the spectrum that is detectable by the human eye. The visible spectrum consists of the colors from red to violet with wavelengths of 3900 Å to 7700 Å.

visible electromagnetic s. The complete range of wavelengths of electromagnetic radiation.

spectrum bias Variation in the performance of a diagnostic test due to its application to people of differing ages, genders, nationalities, or specific disease manifestations. A test's sensitivity and specificity may increase or decrease, depending on the population to which it is applied. SYN: *case-mix bias*.

spectrum emission 1. In spectroscopy and fluorometry, the range of wavelengths emitted by a substance. 2. In the case of atoms, the lines of emission.

speculum (spĕk'ū-lŭm) *pl.* **specula** [L., a mirror] 1. An instrument for examination of canals or hollow organs. SEE: **illus.** 2. The membrane separating the anterior cornua of lateral ventricles of the brain. SYN: *septum pellucidum*.



NASAL SPECULUM

bivalve s. A speculum with two opposed blades that can be separated or closed. SEE: *vaginal s.*

duck-bill s. A bivalve speculum with wide blades.

ear s. A short, funnel-shaped tube, tubular or bivalve (the former being preferable), used to examine the external auditory canal and eardrum.

eye s. A device for separating the eyelids. Plated steel wire, plain, Luer's,

Von Graefe's, and Steven's are the most common types.

Pedersen s. A small vaginal speculum for examining prepubertal patients or others with small vaginal orifices.

vaginal s. A speculum, usually with two opposing portions that, after being inserted, can be pushed apart for examining the vagina and cervix. It should be warmed before use. SEE: **illus.**



VAGINAL SPECULUM

speech [AS. *spæc*] 1. The oral expression of one's thoughts. 2. The utterance of articulate words or sounds. 3. The words spoken for communication.

aphonic s. Whispering. SEE: *aphonia*.

ataxic s. Defective speech due to muscular incoordination, usually the result of cerebellar disorder.

clipped s. Scamping s.

cued s. Cued speech.

dyspraxia of s. In people with normal muscle tone and speech muscle coordination, partial loss of the ability to pronounce words consistently, resulting from injury to the central nervous system or stroke.

echo s. Echolalia.

esophageal s. In people who have had laryngectomies, the modulation by the pharynx, mouth, and tongue of air expelled from the esophagus to produce speech.

explosive s. Sudden, loud speech.

interjectional s. Speech into which gestures, ejaculatory sounds, and other nonverbal mannerisms are introduced.

mirror s. Speech characterized by reversing the order of syllables of a word.

nasal s. Speech in which air from the oropharynx enters the nasopharynx, usually resulting in abnormal resonance. Emission of air through the nose, weak pressure in articulating consonants, and attempts by the patient to stifle the abnormally spoken air column are also characteristic.

paraphasic s. SEE: *paraphasia*.

scamping s. Speech characterized by omission of consonants or syllables when the person is unable to pronounce them. SYN: *clipped speech*.

scanning s. The pronunciation of words in syllables, or slowly and hesitatingly. Pauses between the syllables result in staccato-like speech. It is a symptom of certain diseases of the cerebellum and advanced multiple sclerosis. SYN: *staccato speech*.

staccato s. Scanning s.

telegraphic s. Nonfluent or halting speech, in which some nouns or verbs are uttered but other elements of normal sentence structure are replaced by pauses or gaps. This type of aphasia is a hallmark of Broca's aphasia.

speech abnormality Any disorder, dysfunction, or impairment of speech. Speech abnormalities include expressive and receptive aphasias, dysarthrias, labialism, stammering, stuttering, and word deafness.

speech and language pathologist ABBR: SLP. A health care professional trained to evaluate and treat people who have voice, speech, language, swallowing, or hearing disorders, esp. those that affect their ability to communicate or consume food.

speech delay Any disorder of childhood in the acquisition and use of spoken language.

speech disorder Any abnormality that prevents a person from communicating through spoken words. The disorder may develop from brain injury, stroke, muscular paralysis of the organs of speech, structural defects of the mouth, teeth, or tongue, somatization disorders, or cognitive deficits.

speech processor A miniature computer within a cochlear implant that analyzes sounds and converts them into digital signals.

speechreading Lip reading.

speech recognition The ability of a machine or computer to interpret human speech. Also known as voice recognition and speech understanding.

speech synthesizer An electronic device for producing speech. Activated by a keyboard, it permits persons lacking the ability to speak to communicate.

speech therapist A speech and language pathologist.

speech therapy The study, diagnosis, and treatment of defects and disorders of the voice and of spoken and written communication.

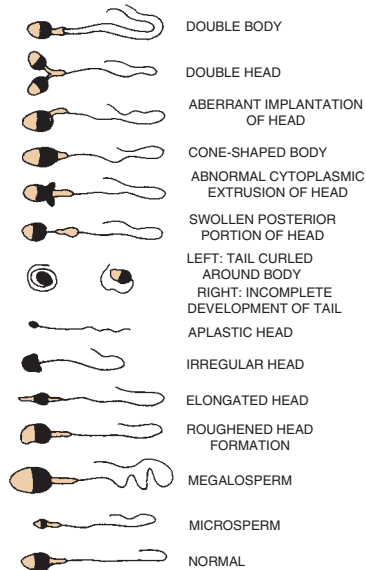
speedball A slang term for a combination of cocaine and heroin taken intravenously.

spend down, spend-down The deliberate depletion of one's financial assets in order to meet the criteria for insurance support from Medicaid.

sperm (spĕrm) [Gr. *sperma*, seed] 1. Semen. 2. Spermatozoa. SEE: *illus.*

sperma (spĕr'mă) [Gr.] 1. Semen. 2. Spermatozoa.

sperma- SEE: *spermato-*.



NORMAL AND ABNORMAL SPERM

spermacrasia (spĕr'măk-ră-zĕ-ă) [Gr. *sperma*, seed, + *akrasia*, bad mixture] Aspermia.

spermagglutination (spĕr'mă-gloo'ti-nă'shŭn) Agglutination of spermatozoa.

spermat- SEE: *spermato-*.

spermatic (spĕr-măt'ik) [Gr. *sperma*, seed] Pert. to semen or sperm.

spermatocide, spermatocide (spĕrm'ăt-ĭ-sĭd, spĕrm'ăt-ō-sĭd) [Gr. *sperma*, seed, + L. *cidus*, kill] Spermicide. **spermatocidal** (-sĭd'ăl), *adj.*

spermatic vein One of two veins draining the testes. The right one empties into the inferior vena cava, the left into the left renal vein. In the spermatic cord, each forms a dilated pampiniform plexus.

spermatid (spĕr'mă-tĭd) A cell arising by division of the secondary spermatocyte to become a spermatozoon. SYN: *spermatoblast*.

spermatin (spĕr'mă-tĭn) A mucilaginous substance in the semen.

spermatitis (spĕr'mă-tĭ'tĭs) [ʹ + *itis*, inflammation] Inflammation of the spermatic cord or of the ductus deferens. SYN: *deferentitis*; *funiculitis*.

spermato-, spermat-, sperma- Combining form meaning *seed*.

spermatoblast (spĕr-măt'ō-blăst) [Gr. *sperma*, spermato-, seed, + *blastos*, germ] Spermatid.

spermatocèle (spĕr-măt'ō-sĕl) [ʹ + *kele*, tumor, swelling] A cystic tumor of the epididymis containing spermatozoa.

spermatocidal (spĕr'mă-tō-sĭ'dăl) [ʹ + L. *cidus*, kill] Destroying spermatozoa.

spermatocyst (spér-mät'ō-sist) [" + *kystis*, bladder] **1.** A seminal vesicle. **2.** Tumor of the epididymis containing semen. SEE: *spermatocoele*.

spermatocystectomy (spér'mät-ō-sis-ték'tō-mē) [" + " + *ektome*, excision] Removal of the seminal vesicles.

spermatocystitis (spér'mät-ō-sis-tī'tis) [" + " + *itis*, inflammation] Inflammation of a seminal vesicle.

spermatocystotomy (spér'mä-tō-sis-tót'ō-mē) [" + " + *tome*, incision] Drainage of the seminal vesicles by use of a surgical incision into the vesicle.

spermatocytal (spér'mä-tō-si'täl) [" + *kytos*, cell] Concerning spermatocytes.

spermatocyte (spér-mät'ō-sīt) [" + *kytos*, cell] A cell originating from a spermatogonium that divides to form spermatids, which become spermatozoa.

primary s. A cell formed by mitosis of a spermatogonium.

secondary s. A cell formed by meiosis of a primary spermatocyte. It undergoes a second meiotic division to form two spermatids, each with the haploid number of chromosomes.

spermatogenesis (spér'mät-ō-jěn'ē-sīs) [" + *genesis*, generation, birth] The formation of mature functional spermatozoa. In the process, undifferentiated spermatogonia become primary spermatocytes, each of which divides to form two secondary spermatocytes. Each of these divides to form two spermatids, which transform into functional motile spermatozoa. In the process, the chromosome number is reduced from the diploid to the haploid number. SEE: *illus.*; *gametogenesis*; *maturation*; *meiosis*.

spermatogenic, spermatogenous (spér'mä-tō-jěn'ík, spēr'mä-tōj'ē-nūs) Producing sperm.

spermatogonium (spér'mät-ō-gō'nē-ŭm) *pl. spermatogonia* [" + *gone*, generation] A large unspecialized germ cell that in spermatogenesis divides by mitosis to form primary spermatocytes. SEE: *spermatogenesis*.

spermatoid (spér'mä-toyd) [" + *eidos*, form, shape] Resembling a spermatozoon.

spermatology (spér'mä-tōl'ō-jē) [" + *logos*, word, reason] The study of the seminal fluid.

spermatolysin (spér'mät-ōl'i-sin) [" + *lysis*, dissolution] A lysin destroying spermatozoa.

spermatolysis (spér'mät-ōl'i-sīs) [" + *lysis*, dissolution] The dissolution or destruction of spermatozoa.

spermatolytic (spér'mät-ō-lit'ik) Destroying spermatozoa.

spermatopathia, spermatopathy (spér'mä-tō-pāth'ē-ā, spēr-mä-tōp'ā-thē) [Gr. *spermatos*, seed, + *pathos*, disease] A disease of sperm cells or their secreting glands or ducts.

spermatopoeitic (spér'mät-ō-poy-ēt'ik) [" + *poiein*, to make] Promoting the formation and secretion of semen.

spermatorrhoea (spér'mä-tō-rē'ä) [" + *rhoia*, flow] An abnormally frequent involuntary loss of semen without orgasm.

spermatotoxin (spér'mä-tō-tōk'sin) [" + *toxikon*, poison] Spermatoxin.

spermatoxin (spér'mä-tōk'sin) [" + "] A toxin that destroys spermatozoa. SYN: *spermatotoxin*.

spermatozoa (spér'mät-ō-zō'ä) *Pl.* of spermatozoon.

spermatozoal (spér'mä-tō-zō'äl) [" + *zoon*, life] Concerning spermatozoa.

spermatozoicide (spér'mä-tō-zō'i-sī) [" + " + *L. cidus*, kill] Spermicide.

spermatozoon (spér'mät-ō-zō'ōn) *pl. spermatozoa* [" + *zoon*, life] The

mature male sex or germ cell formed within the seminiferous tubules of the testes. The spermatozoon has a broad oval flattened head with a nucleus and a protoplasmic neck or middle piece and tail. It is about 51 μ m long and resembles a tadpole. It has the power of self-propulsion by means of a flagellum. It develops after puberty from the spermatids in the testes in enormous quantities. The head pierces the envelope of the ovum and loses its tail when the two cells fuse. This process is called fertilization. SEE: *illus.*; *sperm* for *illus.*; *fertilization*.

spermaturia (spér'mä-tū'rē-ä) [" + *ouron*, urine] Semen discharged with the urine. SYN: *seminuria*.

spermectomy (spér-měk'tō-mē) [" + *ektome*, excision] Resection of a portion of the spermatic cord and duct.

spermic (spér'mik) Concerning sperm, male reproductive cells.

spermicide (spér'mi-sid) An agent that kills spermatozoa. Two spermicides used in contraceptive products are nonoxynol 9 and octoxynol 9. SYN: *spermicide*; *spermatozoicide*. **spermicidal** (spér'mi-sid'äl), *adj.*

spermidine (spér'mi-din) An amine present in semen.

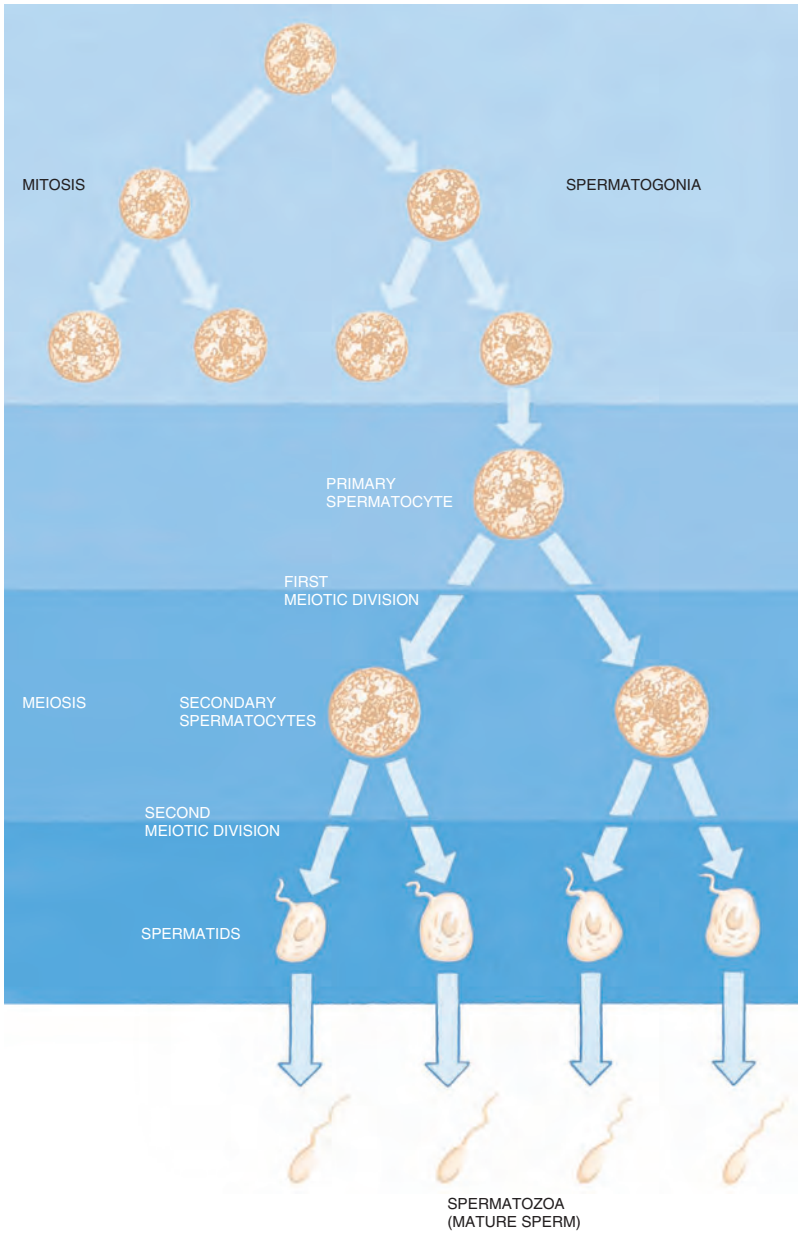
spermiduct (spér'mi-dükt) [" + *L. ductus*, a duct] The ejaculatory duct and ductus deferens considered as one.

spermine (spér'min) An amine present in semen and other animal tissues.

spermiogenesis (spér'mē-ō-jěn'ē-sīs) The processes involved in the transformation of a spermatid to a functional spermatozoon.

spermiogram (spér'mē-ō-grām) [" + *gramma*, something written] A record of examining and classifying sperm in a semen sample.

sperm mucus penetration test A test used to evaluate male infertility. During the female partner's ovulation, a sample of mucus from the uterine cervix and a sample of the male's sperm are combined in a test tube. The distance



SPERMATOGENESIS

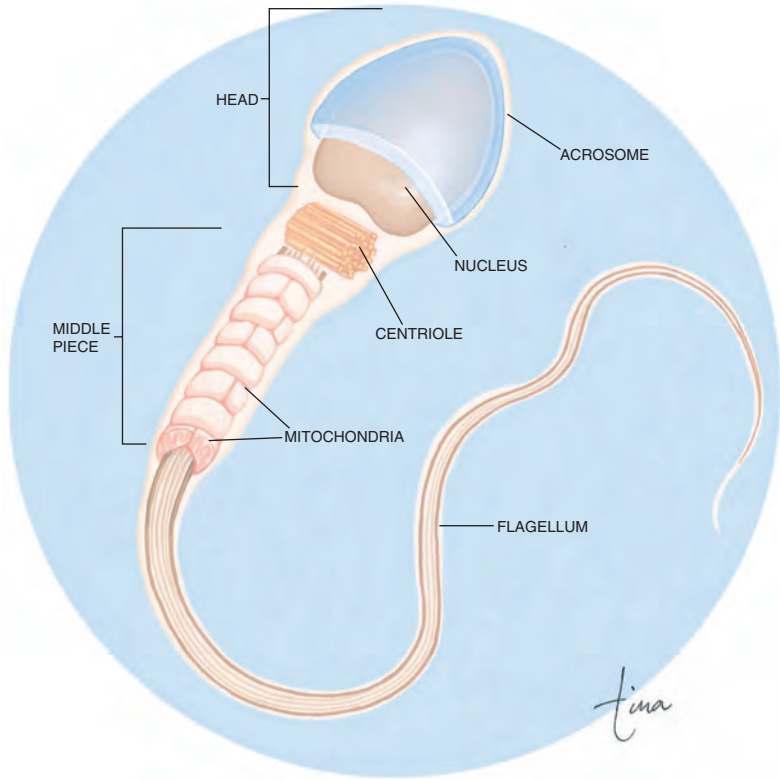
that the sperm travel in 90 minutes is measured. Sperm penetration is considered to be normal when sperm easily travel through the cervical mucus during the allotted time.

spermolith (spĕr'mō-līth) [ʹ + *lithos*, stone] A stone in the seminal vesicles or spermatic ducts.

spermyolytic (spĕr-mō-līt'īk) [ʹ + *lysis*, dissolution] Causing spermatozoa destruction.

spermophlebectasia (spĕr'mō-flĕ'běk-tā'zē-ā) [ʹ + *phlebos*, vein, + *ektasis*, dilatation] Varicosity of the spermatic veins.

spermosphere (spĕr'mō-sfĕr) [ʹ +

**SPERMATOZOON**

Mature sperm cell

sphaira, a circle] A mass of spermatids derived from spermatogonia.

spermotoxin (spēr"mō-tōk'sin) [" + *toxikon*, poison] Spermatoxin.

sperm penetration assay A test used to evaluate male fertility in which a sample of a male's sperm is added to hamster eggs that have had their outer membranes (*zona pellucida*) removed. The number of sperm that penetrate each egg is measured and compared to a normal value. SYN: *hamster zona-free ovum test*.

sperm retrieval, posthumous Obtaining sperm from a body shortly after death in an attempt to use the specimen to impregnate the fiancée or wife of the deceased. The sperm may be frozen for later use.

sp. gr. *specific gravity*.

sph *spherical*.

sphacelate (sfās'ēl-āt) [Gr. *sphakelos*, gangrene] 1. To develop gangrene. 2. Gangrenous. SYN: *mortification*; *necrosis*.

sphacelation (sfās'ēl-ā'shūn) Mortifica-

tion; formation of a mass of gangrenous tissue. SYN: *gangrene*; *necrosis*.

sphacelism (sfās'ēl-izm) [" + *-ismos*, condition] Condition of being affected with sphacelus or gangrene. SYN: *necrosis*.

sphacelous (sfās'ēl-ūs) [Gr. *sphakelos*, gangrene] Pert. to a slough or patch of gangrene. SYN: *gangrenous*; *necrosis*; *necrotic*.

sphacelus (sfās'ēl-ūs) A necrosed mass of tissue. SYN: *gangrene*; *mortification*; *necrosis*; *slough*.

spheno- Combining form meaning *wedge* or indicating a relationship to the sphenoid bone.

sphenobasilar (sfē'nō-bās'ī-lār) [Gr. *sphen*, wedge, + L. *basilaris*, basal] Concerning the sphenoid bone and basilar portion of the occipital bone.

sphenoid (sfē'noyd) [" + *eidos*, form] Cuneiform or wedge-shaped.

sphenoidal (sfē-noy'dāl) Concerning the sphenoid bone.

sphenoiditis (sfē'noy-dī'tīs) [" + " + *itis*, inflammation] 1. Inflammation of

the sphenoidal sinus. **2.** Necrosis of the sphenoid bone.

sphenoidostomy (sfē'noy-dōs'tō-mē) [" + " + *stoma*, mouth] Surgically producing an opening into the sphenoid sinus.

sphenoidotomy (sfē'noyd-ōt'ō-mē) [" + " + *tome*, incision] Incision into the sphenoid bone.

sphenomaxillary (sfē'nō-māk'sī-lā-rē) [" + *L. maxilla*, jawbone] Concerning the sphenoid bone and the maxilla.

spheno-occipital (sfē'nō-ōk-sīp'ī-tāl) [" + *L. occipitalis*, occipital] Concerning the sphenoid and occipital bones.

sphenopalatine (sfē'nō-pāl'ā-tēn) [" + *L. palatum*, palate] Concerning the sphenoid and palatine bones.

sphenoparietal (sfē'nō-pā-rī'ē-tāl) [" + *L. paries*, a wall] Pert. to the sphenoid and parietal bones.

sphenosquamosal (sfē'nō-skwā-mō'sāl) [Gr. *sphen*, wedge, + *L. squamosa*, scaly] Concerning the sphenoid bone and the squamous portion of the temporal bone.

sphere (sfēr) [Gr. *sphaira*, a globe] A ball or globelike structure.

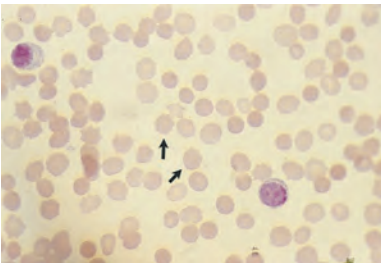
attraction s. A clear region in the cytoplasm close to the nucleus and usually containing a centriole or diplosome (a divided centriole).

segmentation s. The segmented ovum or morula.

spherical (sfēr'ī-kāl) [Gr. *sphairikos*] Having the form of or pert. to a sphere. SYN: *globular*.

sphero-cylinder (sfērō-sil'in-dēr) [Gr. *sphaira*, globe, + *kylindros*, cylinder] A lens with a spherical surface and a cylindrical surface.

spherocyte (sfērō-sīt) [" + *kytos*, cell] An erythrocyte that assumes a spheroid shape, and has no central pallor. SEE: *illius*.



SPHEROCYTES

In peripheral blood (×400)

spherocytosis (sfērō-sī-tō'sīs) [" + " + *osis*, condition] A condition in which erythrocytes assume a spheroid shape. It occurs in certain hemolytic anemias.

hereditary s. An autosomal dominant hemolytic anemia caused by a defect in the red blood cell membrane that

makes the cell abnormally fragile and esp. susceptible to changes in the concentration of osmoles in the blood. Affected cells are gradually destroyed in the spleen, resulting in splenic enlargement, jaundice, and anemia as well as a high incidence of gallstone disease. Surgical removal of the spleen prevents many of this condition's complications but carries with it a risk of postoperative immune suppression.

spheroid (sfē'royd) [" + *eidōs*, form, shape] **1.** A body shaped like a sphere. **2.** Sphere-shaped.

spheroidal (sfē-roy'dāl) Sphere-shaped. **spherolith** (sfē'rō-līth) [" + *lithos*, stone] A minute stone in the kidney of the newborn.

spheroma (sfē-rō'mā) [" + *oma*, tumor] A tumor of spherical form.

spherometer (sfē-rōm'ēt-ēr) [" + *metron*, measure] A device to ascertain the curvature of a surface.

spheroplast (sfēr'ō-plāst) In bacteriology, the cell and partial cell wall remaining after the organism's cell-wall synthesis has been prevented. Spheroplasts may be formed when synthesis of the cell wall is prevented by the action of certain chemicals, e.g., penicillin, while cells are growing. SEE: *proto-plast*.

spherospermia (sfērō-spēr'mē-ā) [" + *sperma*, seed] Round spermatozoa without tails.

spherule (sfēr'ūl) [LL. *sphaerula*, little globe] **1.** A very small sphere. **2.** A minute granule found in the center of a centromere of a chromosome. **3.** The structures present in tissues infected with *Coccidioides immitis*. These spherules contain up to hundreds of endospores.

sphincter (sfīngk'tēr) [Gr. *sphinkter*, band] A circular muscle constricting an orifice. In normal tonic condition, it closes the orifice, i.e., the muscle must relax to allow the orifice to open.

s. ani A sphincter that closes the anus, composed of two parts: the external one being of striated muscle, the internal one, of smooth muscle.

bladder s. The smooth muscle surrounding the opening of the bladder into the urethra.

cardiac s. Lower esophageal sphincter.

s. choledochus The smooth muscle investing the common bile duct just before its junction with the pancreatic duct; a part of the sphincter of Oddi.

ileocecal s. A projection of the ileum into the cecum that acts as a sphincter. SEE: *valve, ileocecal*.

lower esophageal s. The smooth muscle surrounding the opening of the esophagus into the stomach. In health, it separates these linked organs from each other, preventing the reflux of

stomach acids into the esophagus. SYN: *cardiac sphincter*.

s. of Oddi A contracted region at the opening of the common bile duct into the duodenum at the papilla of Vater.

s. pancreaticus The smooth muscle encircling the pancreatic duct just before it joins the ampulla.

precapillary s. A smooth muscle cell found at the beginning of a capillary network. It regulates capillary blood flow. SEE: *artery for illus*.

pyloric s. The thickened circular smooth muscle around the pyloric orifice at the junction of the stomach and duodenum. The sphincter is usually contracted but relaxes at intervals (when gastric pressure exceeds duodenal pressure) to permit acid chyme to enter the duodenum. It then contracts to prevent backup of chyme to the stomach.

upper esophageal s. A sphincter that keeps the opening between the posterior pharynx and the proximal esophagus closed, except during swallowing. It is maintained principally by the cricopharyngeal muscle.

sphincteralgia (sfɪŋk'tēr-āl'jē-ă) [Gr. *sphinkter*, band, + *algos*, pain] Pain in the sphincter ani muscles.

sphincterectomy (sfɪŋk'tēr-ĕk'tō-mē) [" + *ektome*, excision] 1. Excision of any sphincter muscle. 2. Excision of part of the iris' pupillary border.

sphincterismus (sfɪŋk'tēr-iz'mūs) [" + *-ismos*, condition] A spasm of the sphincter ani muscles.

sphincteritis (sfɪŋk'tēr-ī'tīs) [" + *itis*, inflammation] Inflammation of any sphincter muscle.

sphincterolysis (sfɪŋk'tēr-ōl'ī-sīs) [" + *lysis*, dissolution] Freeing of the iris from the cornea in anterior synechia affecting only the pupillary border.

sphincteroplasty (sfɪŋk'tēr-ō-plās'tē) [" + *plassein*, to form] Surgical repair of any sphincter.

sphincteroscope (sfɪŋk'tēr-ō-skōp") [" + *skopein*, to examine] An instrument for inspection of the anal sphincter.

sphincteroscopy (sfɪŋk'tēr-ōs'kō-pē) Inspection of the internal anal sphincter. The internal anal sphincter is covered by anodermal and mucous membrane tissues that cannot be seen unless exposed surgically.

sphincterotome (sfɪŋk'tēr-ō-tōm") [" + *tome*, incision] A surgical instrument for cutting a sphincter.

sphincterotomy (sfɪŋk'tēr-ōt'ō-mē) [" + *tome*, incision] The cutting of a sphincter muscle; done, for example, in eye surgery to enlarge the pupil.

Sphingobacterium (sfɪŋg'ō-bāk-tēr-ūm) A genus of gram-negative bacilli formerly identified as *Flavobacterium*. It is commonly present in soil and may

occasionally cause skin infections and sepsis.

sphingolipid (sfɪŋg'ō-lip'īd) [Gr. *sphingein*, to bind, + *lipos*, fat] A lipid containing one of several long-chain bases such as sphingosine or dihydrosphingosine or bases of similar chemical structure but containing longer chains.

sphingolipidosis (sfɪŋg'ō-lip'ī-dō'sīs) [" + " + *osis*, condition] Any disease marked by a defective metabolism of sphingolipids. These genetically determined errors of metabolism include Sandhoff's disease, Fabry's disease, Tay-Sachs disease, Kufs' disease, Gaucher's disease, Krabbe's leukodystrophy, Niemann-Pick disease, Batten disease, and Spielmeyer-Vogt disease. They are marked by neurological deterioration, usually beginning a few months after birth and eventually leading to death except in the adult form of Gaucher's disease. These diseases can be detected by examining fluid obtained by amniocentesis.

sphingolipodystrophy (sfɪŋg'ō-lip'ō-dīs'trō-fē) [" + *dys*, bad, + *trophe*, nutrition] A group of diseases caused by defective sphingolipid metabolism.

sphingomyelins (sfɪŋg'ō-mī'ēl-īns) A major group of phosphorus-containing sphingolipids. They are found primarily in nervous tissue and in lipids in the blood. They are derived from choline phosphate and a ceramide. Deficiencies in sphingomyelin manufacturing are found in many diseases. SEE: *sphingolipidosis*.

sphingosine (sfɪŋg'ō-sīn) A long-chain base, C₁₈H₃₇O₂N, present in sphingolipids. SEE: *dihydrosphingosine*; *sphingolipid*.

sphygmik (sfɪg'mik) [Gr. *sphygmikos*] Rel. to the pulse.

sphygmo- Combining form meaning *pulse*.

sphygmobolometer (sfɪg'mō-bō-lōm'ē-tēr) [Gr. *sphygmos*, pulse, + *bolos*, mass, + *metron*, a measure] A device used to measure the force of the pulse rather than the blood pressure.

sphygmogram (sfɪg'mō-grām) [" + *gramma*, something written] A tracing of the pulse made by using the sphygmograph.

sphygmograph (sfɪg'mō-grāf) [" + *graphein*, to write] Polygraph.

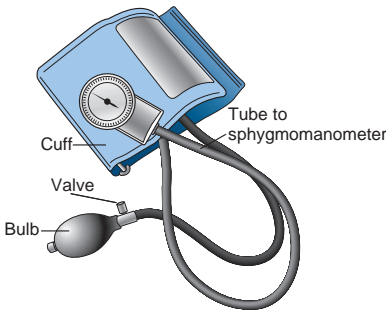
sphygmography (sfɪg'mōg'rā-fē) Recording the arterial pulse by use of a polygraph.

sphygmoid (sfɪg'moyd) [Gr. *sphygmos*, pulse, + *eidōs*, form, shape] Resembling the pulse.

sphygmology (sfɪg'mōl'ō-jē) [" + *logos*, word, reason] The scientific study of the pulse.

sphygmomanometer (sfɪg'mō-mān-ōm'ēt-ēr) [" + *manos*, thin, + *metron*, measure] An instrument for deter-

mining arterial blood pressure indirectly. The two types are aneroid and mercury. SEE: *illus.*; *blood pressure*.



SPHYGMOMANOMETER

sphygmometer (sfīg-mōm'ēt-ēr) [" + *metron*, measure] An instrument for measuring the pulse. SYN: *polygraph*.

spica (spī'kā) [L., ear of grain] SEE: *bandage, spica*.

spicular (spīk'ū-lar) [L. *spiculum*, a dart] Pert. to or resembling a spicule; dartlike.

spicule (spīk'ūl) A small, needle-shaped structure. SYN: *spiculum*.

bony s. A thin island of developing bone.

cemental s. An excementosis or pointed protuberance extending from the surface cementum of a tooth root.

spiculed red cell Crenated red blood cells with surface projections. It often instances, this is a normal variation in red cell equilibrium and is reversible. SEE: *acanthocyte*.

spiculum (spīk'ū-lūm) *pl.* **spicula** [L., a dart] Spicule.

spider (spī'dēr) **1.** An arachnid, belonging to the order Araneae, class Arachnida, phylum Arthropoda. The body is divided into cephalothorax and abdomen joined by a narrow waist. A spider usually possesses four pairs of legs as well as poison fangs. It often possesses spinnerets. **2.** Anything resembling a spider in appearance.

arterial s. SEE: *nevus, spider*.

s. bite SEE: under *bite*.

black widow s. The female of *Latrodectus mactans*. It is native to the southern U.S. but has been reported throughout the country. It prefers to live in woodpiles and other locations where it is well hidden. It is glossy black with a brilliant red spot, usually shaped like an hourglass or two triangles, on the undersurface of the abdomen (Southern black widow), or a row of red, white or yellow spots down the middle of the abdomen with two crosswise bars (Northern black widow). Its body mea-

sures about 1 cm and its leg spread can reach 5 cm.

The bite of a black widow spider initially produces a sensation resembling the prick of a pin and may be mistaken for a flea bite. A numbing pain usually lasts for a short time and then subsides; later the abdominal muscles become rigid and the patient becomes severely diaphoretic. Within 1/2 hr, severe abdominal cramps begin. The venom, which is neurotoxic, causes an ascending motor paralysis. Because of the severity of abdominal pain caused by the bite, the patient may be suspected of having an acute abdomen. Severe cases, esp. in children, can result in death; however, healthy patients usually respond to treatment, and most victims recover completely.

PATIENT CARE: Intravenous access should be established in order to administer fluids, antiemetics, and/or analgesics as prescribed. Stimulant drugs should not be given to patients who have been bitten by a black widow spider. Local suction is of little value as the toxin is rapidly absorbed. Symptomatic treatments include intravenous, intramuscular, or oral muscle relaxants, antihistamines, and benzodiazepines. Tetanus prophylaxis should be administered. Specific antivenins may be used when envenomation has severe neurological consequences.



Respiratory status must be carefully monitored when morphine or a benzodiazepine is used.

Antivenin generally is used only for very young or very elderly patients experiencing respiratory distress or when severe pain and muscle spasms are not controlled by other measures. Prior to its administration, a skin test is performed to assess for allergic reaction to the horse serum used in making the antivenin. Even if the test is negative, resuscitative medications and equipment should be readily at hand to manage an anaphylactic reaction to the antivenin. In addition to the risk of acute hypersensitivity, delayed serum sickness can occur 7 to 12 days after antivenin administration.

brown recluse s. *Loxosceles reclusa*, 3/8-in (10 mm) long spider native to North America. The venom of the brown recluse spider is toxic and can be lethal. It may produce a large area of necrosis at the site of the bite.

TREATMENT: Dapsone, antivenins, and steroids are often used to treat the envenomation; however, before using dapsone, the patient should be tested for glucose-6-phosphate dehydrogenase

deficiency. Tetanus prophylaxis should be administered.

hobo s. A 5-in (45 mm) long brown spider with gray markings found in northwestern North America. Males are more venomous than females. A bite causes erythema, blisters, subsequent necrosis of the skin, and sometimes severe, persistent headaches. Systemic corticosteroid therapy may be helpful. Aplastic anemia, intractable diarrhea, or vomiting may occur and, although rare, may be fatal.

spider-burst An area on the leg in which capillaries radiate from a central point. The veins, though dilated, are not varicosities.

spider fingers Arachnodyctyly.

sigelian line (spī-jē'lē-ān) [Adriaan van den Spieghel, Flemish anatomist, 1578–1625] A line on the abdomen lying parallel to the median line and marking the edge of the rectus abdominis muscle. SYN: *linea semilunaris*; *semilunar line*.

sigelian lobe SEE: under *lobe*.

spike **1.** The dominant peak in the record of an action potential or electroencephalogram. **2.** The narrow vertical tracing left on an electrocardiogram by the impulse generator of an electronic pacemaker. **3.** A needle used to puncture an object (e.g., a bag of intravenous fluids or a cyst), permitting fluids within the object to flow out. **4.** Any of the structural units that facilitate attachment of viruses to host cell receptors.

spike and wave Electroencephalic evidence of grand mal seizures.

spikeboard (spīk'bōrd) An assistive technology device for persons with limited upper extremity or one-handed function that allows food to be held in place while it is being prepared.

spill (spil) [AS. *spillan*, to squander] **1.** To flow out of or release; in medicine, said of a substance that cannot be maintained in the body by one of its organs, esp. the kidneys. In diabetes mellitus, for example, the kidneys spill sugar into the urine. In the nephrotic syndrome, they spill protein. **2.** An overflow.

cellular s. A dissemination of cells through the lymph or the blood resulting in metastasis.

radioactive s. A release of radioactive materials into the environment.

spillway (spil'way) The contour of the teeth that allows food to escape from the cusps during mastication.

spina (spī'nā) *pl.* **spinæ** [L., thorn] **1.** Any spinelike protuberance. **2.** The spine.

s. bifida *Spina bifida cystica*.

s. bifida cystica A congenital defect in the walls of the spinal canal caused by a lack of union between the laminae of the vertebrae. The lumbar portion is the section chiefly affected. The conse-

quences of this defect may include urinary incontinence, saddle or limb anesthesia, gait disturbances, and structural changes in the pelvis. SYN: *rachischisis*.

s. bifida occulta A failure of the vertebrae to close without hernial protrusion.

spinal (spī'nāl) [L. *spinalis*] Pert. to the spine or spinal cord. SYN: *rachial*; *rachidial*.

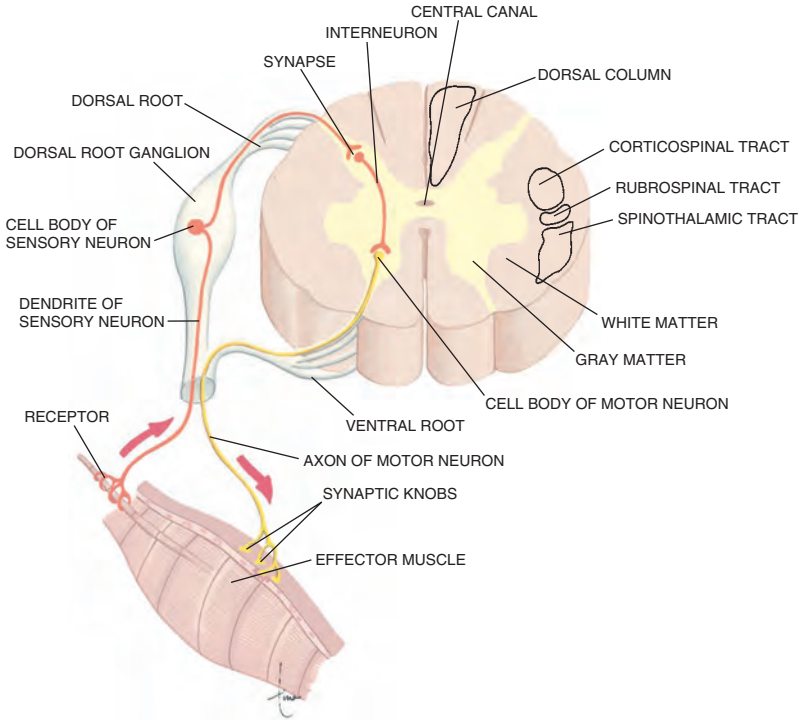
spinal accessory nerve Accessory nerve.

spinal cord Part of the central nervous system, the spinal cord is an ovoid column of nerve tissue 40 to 50 cm long that extends from the medulla to the second lumbar vertebra; it is within the spinal (vertebral) canal, protected by bone, and directly enclosed in the meninges. The center of the cord is gray matter in the shape of the letter H; it consists of the cell bodies and dendrites of neurons. The ventral (anterior) horns of the gray matter contain cell bodies of somatic motor neurons; the dorsal (posterior) horns contain cell bodies of interneurons. The white matter is arranged in tracts around the gray matter. It consists of myelinated axons that transmit impulses to and from the brain, or between levels of gray matter in the spinal cord, or that will leave the cord as part of peripheral nerves. The spinal cord is the pathway for sensory impulses to the brain and motor impulses from the brain; it also mediates stretch reflexes and the defecation and urination reflexes. Thirty-one pairs of spinal nerves emerge from the spinal cord and innervate the trunk and limbs. SEE: *illus*.

spinal cord injury, acute Acute traumatic injury of the spinal cord. Signs and symptoms depend upon the vertebral level injured and degree of injury. Damage may occur both as a result of the initial injury and any inflammatory response or swelling that occurs in the next 48 to 72 hr. Therapy for this condition includes immobilization, high doses of corticosteroids, airway maintenance, cardiovascular resuscitation, and insertion of an indwelling catheter. The use of intravenous methylprednisolone given as a bolus dose of 30 mg/kg and then a maintenance dose of 5.4 mg/kg/hr for 24 to 48 hr during the acute phase improves neurological recovery and may reduce edema.

PATIENT CARE: Cooling the patient or the spinal cord has theoretical advantages; clinical benefit has been difficult to document. Immediately after spinal cord injury emphasis is placed on stabilizing the spine, maintaining adequate ventilation and circulation, and assessing and treating problems with thermoregulation and urinary retention. After initial stabilization, all general patient care concerns apply. The





SPINAL CORD

Cross-section with nerve roots on left side and examples of tracts on right side

patient is assessed for evidence of paralysis, loss of sensation or reflexes, pneumonia, deep vein thrombosis, pulmonary embolism, decreased peristalsis, gastrointestinal bleeding, and problems associated with immobilization. Explanations of all procedures and support are provided to the patient and his or her supporters. Anxiolytics (if needed) should be administered as prescribed, and their effects evaluated. The patient who suffers serious trauma to the spinal cord may suddenly confront many challenges to body image and functional independence, including changes in mobility, urinary and fecal continence, erectile function, skin integrity, and mood. A sensitive and caring multidisciplinary approach to rehabilitation is needed to help the client resume an active and fulfilling life.

spinal curvature Abnormal curvature of the spine, frequently constitutional in children. It may be angular, lateral (scoliosis), or anteroposterior (kyphosis, lordosis).

spinal curvature, lateral Scoliosis.

spinal fusion Surgical immobilization of adjacent vertebrae. This procedure may

be done for several conditions, including herniated disk.

spinalgia (spī-nāl'jē-ă) [L. *spina*, thorn, + Gr. *algos*, pain] Pain in a vertebra under pressure.

spinalis (spī-nā'lis) [L.] A muscle attached to the spinal process of a vertebra.

spinate (spī'nāt) Having spines or shaped like a thorn.

spindle (spīn'dl) [AS. *spinel*] **1.** A fusiform-shaped body. **2.** The mitotic spindle, a series of microtubules formed by the centrosomes during cell division; the spindle fibers pull the new sets of chromosomes toward opposite poles of the cell.

enamel s. A tubular hypomineralized structure extending a short distance from the dentinoenamel junction into enamel, seen in ground sections of teeth.

muscle s. A specialized sensory fiber within a muscle that is sensitive to tension and changes in length of the muscle. The central region consists of a nuclear bag with primary or annulospiral receptor endings and several nuclear chains with primary endings and sec-

ondary, or flower spray, endings. Each end consists of intrafusal muscle fibers innervated by gamma motor nerves. When these fibers contract, tension on the central bag and chains results in feedback to the muscle fibers outside the muscle spindle, causing them to contract.

neuromuscular s. A complex sensory nerve ending consisting of muscle fibers enclosed within a capsule and supplied by an afferent nerve fiber. It mediates proprioceptive sensations and reflexes.

neurotendinous s. A proprioceptive nerve ending found in a tendon, in muscle septa or sheaths, in muscle tissue, or at the junction of a muscle and tendon. SYN: *Golgi tendon organ*.

sleep s. Electroencephalographic waves with a frequency of 12 or 14 cycles per second that appear during sleep and may participate in sleep maintenance. They become less frequent with aging.

spine (spīn) **1.** A sharp process of bone. **2.** The spinal column, consisting of 33 vertebrae: seven cervical, 12 thoracic, five lumbar, five sacral, and four coccygeal. The bones of the sacrum and coccyx are ankylosed in adult life and counted as one each. SYN: *backbone*.

alar s. The spinous process of the sphenoid bone.

anterior nasal s. The projection formed by the anterior prolongation of the inferior border of the nasal notch of the maxilla.

bamboo s. In ankylosing spondylitis, a spinal column that on a radiograph resembles a bamboo stalk.

bifid s. SEE: *spina bifida cystica*; *spina bifida occulta*.

fracture of the s. Fracture of a vertebral body or its bony prominences. SEE: *hangman's fracture*; *Jefferson fracture*.

TREATMENT: The patient is carefully assessed for evidence of neuromuscular compromise and other internal injuries. To prevent complications and promote healing, vests, casts, or halo devices may be used, depending on the location of the fracture. A program of supervised physical therapy may be needed during recovery.

PROGNOSIS: Prognosis depends on the type of spinal fracture and associated spinal cord involvement.

iliac s. One of four spines of the ilium, namely, the anterior and posterior inferior spines and the anterior and posterior superior spines.

ischial s. The spine of the ischium, a pointed eminence on its posterior border.

mandibular s. The small, tongue-shaped protuberance on the medial aspect of the mandibular ramus near the mandibular foramen, to which the

sphenomandibular ligament is attached.

pharyngeal s. The point of attachment of the superior pharyngeal constrictor and its fibrous raphe on the inferior surface of the basilar part of the occipital bone.

posterior nasal s. The spine formed by medial ends of the horizontal processes of the palatine bones at the very back of the hard palate.

s. of pubis A prominent tubercle on the upper border of the pubis.

s. of scapula An osseous plate projecting from the posterior surface of the scapula.

spear tackler's s. SEE: *spear tackler's spine*.

s. of sphenoid The spinous process of the greater sphenoid wing.

typhoid s. An acute arthritis due to infection causing spinal ankylosis during or following typhoid fever.

spine board, spineboard Back board.

spinnbarkeit (spīn' bār-kīt) [Ger.] ABBR: SBK. Evaluation of the elasticity of cervical mucus used to determine time of ovulation. The cervical secretion is aspirated and placed on a slide. SBK is measured by pulling upward on the secretion with a forceps. Before ovulation, there is no elasticity. On the day of ovulation, elasticity is good, measuring 12 to 24 cm or more. The day after ovulation, elasticity diminishes. Not all women have clear-cut SBK changes. Therefore, this test is used in conjunction with other signs of ovulation. SEE: *chart, basal temperature; ferning; mittelschmerz; mucorrhea*.

spinobulbar (spī'nō-būl'bār) [ʹ + Gr. *bulbos*, a bulb] Concerning the spinal cord and medulla oblongata.

spinocerebellar (spī'nō-sēr-ē-bēl'ār) [ʹ + *cerebellum*, little brain] Concerning the spinal cord and cerebellum.

spinocortical (spī'nō-kor'ti-kāl) [ʹ + *cortex*, rind] Pert. to the spinal cord and cerebral cortex.

spinofugal (spī-nīf'ū-gāl) [L. *spina*, thorn, + *fugare*, to flee] Conducting nerve impulses away from the spinal cord.

spinoglenoid (spī'nō-glēn'oyd) [ʹ + Gr. *glene*, socket, + *eidōs*, form, shape] Rel. to the spine of the scapula and the glenoid cavity.

spinopetal (spī-nīp'ē-tāl) [ʹ + *petere*, to seek] Conducting nerve impulses toward the spinal cord.

spinose (spī'nōs) [L. *spina*, thorn] Spinous.

spinotectal (spī'nō-tēk'tāl) [ʹ + *tectum*, roof] Pert. to the spinal cord and the tectum, the dorsal portion (corpora quadrigemina) of the midbrain.

spinous (spī'nūs) [L. *spina*, thorn] Pert. to or resembling a spine.

spinous point A spot over a spinous process very sensitive to pressure.

spinous process The prominence at the posterior part of each vertebra.

spiradenoma (spī'rad-ĕn-ō'mă) [" + " + *oma*, tumor] A benign tumor of the sweat glands. SEE: *spiroma*.

spiral (spī'rāl) [L. *spiralis*] Coiling around a center like the thread of a screw.

Curschmann's s. SEE: *Curschmann's spirals*.

spirillicidal (spī-rīl'ī-sīd'āl) [L. *spirillum*, coil, + *cidus*, kill] Destructive to spirochetes or spirilla.

spirillicide (spī-rīl'ī-sīd) An agent that is destructive to spirilla.

spirillolysis (spī'rī-lōl'ī-sīs) [" + Gr. *lysis*, dissolution] The destruction of spirilla.

spirillosis (spī-rīl-ō'sīs) [" + Gr. *osis*, condition] A disease caused by the presence of spirilla in the blood.

spirillotropic (spī'rī-lō-trōp'īk) [" + Gr. *trope*, a turning] Having an attraction to spirilla.

spirillotropism (spī'rī-lōt'rō-pīzm) [" + " + *-ismos*, condition] The ability to attract spirilla.

Spirillum (spī-rīl'ūm) [L., coil] A genus of spiral, motile bacteria of the family Pseudomonadaceae, tribe Spirillae. They are found in fresh water and salt water.

S. minus A species that infects rats and mice. It causes one form of rat-bite fever. It was formerly known as *S. minor*.

spirillum (spī-rīl'ūm) *pl.* **spirilla** A flagellated aerobic bacterium with an elongated spiral shape, of the genus *Spirillum*. SEE: *bacteria* for illus.

spirit (spīr'it) [L. *spiritus*, breath] **1.** A solution of essential or volatile liquid. **2.** Any distilled or volatile liquid. **3.** An alcoholic beverage. **4.** Mood; courage. **5.** Soul.

spiritual distress Disruption in the life principle that pervades a person's entire being and that integrates and transcends one's biological and psychosocial nature.

risk for s.d. At risk for an altered sense of integration with life and the universe in which dimensions that transcend and empower the self may be disrupted. SEE: *Nursing Diagnoses Appendix*.

spirituality (spīr'ī-choo-āl'ī-tē) [ME.] An awareness of the metaphysical, the religious, or the sublime. In practice, spirituality includes participation in organized religion, contemplation, meditation, prayer, reflection, and activities fostering self-growth and connections with others and with nature.

spiritual therapy The use of beliefs, religious practices, and prayer to treat disease.

spiritual well-being, readiness for enhanced Ability to experience and integrate meaning and purpose in life through connectedness with self, others, art, music, literature, nature, or a power greater than oneself. SEE: *Nursing Diagnoses Appendix*.

Spirochaeta (spī'rō-kē'tā) [Gr. *speira*, coil, + *chaite*, hair] A genus of slender, spiral, motile bacteria of the family Spirochaetaceae. The species are saprophytes in water and soil.

spirochete (spī'rō-kēt) Any member of the order Spirochaetales. **spirochetal**, *adj.*

spirochetemia (spī'rō-kē-tē'mē-ā) [" + *chaite*, hair, + *haima*, blood] Spirochetes in the blood.

spirocheticide (spī'rō-kē'tī-sīd') Anything that destroys spirochetes. **spirocheticidal** (-sī'dāl), *adj.*

spirochetolysis (spī'rō-kē-tōl'ī-sīs) [" + *chaite*, hair, + *lysis*, dissolution] The destruction of spirochetes by specific antibodies, chemotherapy, or lysins.

spirocheturia (spī'rō-kē-tū'rē-ā) [Gr. *speira*, coil, + *chaite*, hair, + *ouron*, urine] Spirochetes in the urine.

spiogram (spī'rō-grām") [L. *spirare*, to breathe, + Gr. *gramma*, something written] A record made by a spiograph or a spirometer, demonstrating lung volumes and air flow.

spiograph (spī'rō-grāf) [" + Gr. *graphein*, to write] A graphical record of respiratory movements.

spiroid (spī'royd) [Gr. *speira*, coil, + *eidōs*, form, shape] Resembling a spiral.

spiroma (spī-rō'mă) [" + *oma*, tumor] Multiple, benign, cystic epithelioma of the sweat glands. SEE: *spiradenoma*.

spirometer (spī-rōm'ēt-ēr) [L. *spirare*, to breathe, + Gr. *metron*, measure] An apparatus used to measure lung volumes and air flow. The following are typical measurements made on adult patients by using the spirometer: inspiratory reserve volume: the amount that a subject can still inhale by special effort after a normal inspiration; expiratory reserve volume: the volume of air that can still be exhaled after a normal exhalation; tidal volume: the volume of air exhaled or inhaled during normal breathing; vital capacity: the maximum volume of air that can be exhaled after a maximal inhalation; forced vital capacity or forced expiratory volume: the air that can be exhaled during a maximal exhalation.

spirometry the plerocercoid larva of tapeworms, esp. those of the genera *Diphyllobothrium* and *Spirometra*.

spirometry (spī-rōm'ēt-ēr) [L. *spirare*, to breathe, + Gr. *metron*, measure] Measurement of air flow and lung volumes. SEE: *pulmonary function test*.

incentive s. Spirometry in which visual and vocal stimuli are given to the

patient to produce maximum effort during deep breathing. Incentive spirometry is used most often in postoperative patients to prevent atelectasis. **SEE: il-lus.**



INCENTIVE SPIROMETER

spit (spīt) [AS. *spittan*] 1. Saliva. 2. To expectorate spittle.

spittle (spit'tl) [AS. *spatl*] Saliva.

spit tobacco **SEE:** under *tobacco*.

splanchn-, splanchno- Prefixes meaning *viscera* or *splanchnic nerve*.

splanchna (splāngk'nā) [Gr.] The viscera.

splanchnectopia (splāngk'nēk-tō'pē-ā) [" + *ektopos*, out of place] Dislocation of a viscus or of the viscera.

splanchnesthesia (splāngk'nēs-thē'zē-ā) [" + *aisthesis*, sensation] Visceral sensation.

splanchnic (splāngk'nīk) [Gr. *splanchnikos*] Pert. to the viscera.

splanchnicectomy (splāngk'nē-sēk'tō-mē) [Gr. *splanchnos*, viscus, + *ektome*, excision] Resection of the splanchnic nerves.

splanchnicotomy (splāngk'nī-kōt'ō-mē) [" + *tome*, incision] Section of a splanchnic nerve.

splanchnocranium (splāngk'nō-kra'nē-ūm) [" + *kranion*, skull] Viscerocranium.

splanchnography (splāngk-nōg'rā-fē) [" + *graphein*, to write] Examination of the viscera using fluoroscopy or transillumination.

splanchnology (splāngk-nōl'ō-jē) [" + *logos*, word, reason] The study of the viscera.

splanchnomegaly (splāngk'nō-mēg'ā-lē) [" + *megas*, large] Visceromegaly.

splanchnomicria (splāngk'nō-mīk'rē-ā) [" + *mikros*, small] The condition of having small splanchnic organs.

splanchnoptosis, splanchnoptosis (splāngk'nō-tō'sē-ā,-sīs) [" + *ptosis*, a dropping] Prolapse of the viscera. **SYN:** *enteroptosis; visceroptosis*.

splanchnosclerosis (splāngk'nō-sklēr-ō'sīs) [" + *sklerosis*, to harden] A

hardening of any of the viscera through overgrowth or infiltration of connective tissue.

splanchnotribe (splāngk'nō-trīb) [" + *tribein*, to rub] A crushing instrument formerly used to close the lumen of the intestine before surgically removing the organ.

splatter, spatter The airborne distribution of particles, e.g., during dental or surgical procedures.



To avoid exposure to potentially infectious agents or other hazardous particles during procedures in which splatter is anticipated, exposed personnel should wear protective equipment such as goggles, respirators, gowns, and gloves.

splayfoot (splā'foot) [ME. *splayen*, to spread out, + AS. *fof*, foot] Flatfoot.

spleen (splēn) [Gr. *splen*] A dark red, oval lymphoid organ in the upper left abdominal quadrant posterior and slightly inferior to the stomach; on the inferior side is the hilum, an indentation at which the splenic vessels and nerves enter or exit. The spleen is surrounded by an outer capsule of connective tissue from which strands of connective tissue (trabeculae) extend into the soft pulp (functional tissue), dividing the spleen into compartments.

The white pulp, composed of lymphocytes and follicles, forms sheaths around arterial vessels and collects in larger nodules containing germinal centers. The red pulp contains vascular sinuses and sinusoids with highly permeable walls, and spongelike splenic cords filled with macrophages and dendritic cells. The spleen is part of the mononuclear phagocytic system and its removal (splenectomy), though compensated for by the lymph nodes and liver, decreases immune function and may place the patient at increased risk for infection, esp. from *Streptococcus pneumoniae* and *Haemophilus influenzae*.

FUNCTION: In the embryo, the spleen forms both red and white blood cells; after birth, only lymphocytes are created except in severe anemia, when production of red blood cells may be reactivated. Blood enters via the splenic artery and passes through progressively smaller arterial vessels; foreign antigens are trapped in the white pulp, initiating proliferation of antigen-specific lymphocytes and antibodies. The arterioles terminate in the red pulp, where macrophages remove cell debris, microorganisms, and cells that are old, damaged, abnormal, or coated with antibody.

The vascular capacity of the spleen, 100 ml to 300 ml, is an average of 4% of the total blood, and the spleen may con-

tain 30% of the total platelets. In stressful situations, sympathetic impulses stimulate constriction of the venous sinuses, forcing most of the splenic blood into circulation. If the spleen is enlarged (splenomegaly), its vascular capacity increases dramatically, and increased contact with macrophages may cause anemia, leukopenia, and thrombocytopenia. Removal of the spleen may be necessary in patients with thrombocytopenia. Many disorders cause splenomegaly, including portal hypertension (e.g., in cirrhosis), heart failure, and certain infections. Primary disorders of the spleen, however, are rare. SEE: *lymphatic system for illus; asplenia syndrome; germinal center.*

accessory s. Splenic tissue found outside the main bulk of the organ, usually but not always within the peritoneal cavity. If the patient is asymptomatic, the accessory spleen may be found only as an incidental mass on an abdominal scan; alternatively, the condition may exacerbate certain illnesses (e.g., immune thrombocytopenic purpura).

floating s. An enlarged movable spleen that is not protected by the ribs. SYN: *splenectopia*.

sago s. A spleen having the appearance of grains of sago.

wandering s. A dislocated floating spleen.

splenadenoma (splĕn'ād-ĕ-nō'mă) [Gr. *splen*, spleen, + *aden*, gland, + *oma*, tumor] An enlarged spleen caused by hyperplasia of its pulp.

splinalgia (splĕ-nāl'jĕ-ă) [" + *algos*, pain] Neurological pain in the spleen. SYN: *splendynia*.

splenectasia, splenectasis (splĕ'nĕk-tă-zĕ-ă, splĕ'nĕk'tă-sĭs) [" + *ektasis*, dilatation] Enlargement of the spleen.

splenectomy (splĕ'nĕk'tō-mĕ) [" + *ektome*, excision] 1. Surgical removal of the spleen. 2. Obliteration of the spleen by trauma or illness (e.g., by infarction resulting from sickle cell anemia).



Because the spleen removes encapsulated bacteria from the bloodstream, its absence or removal increases the risk of many serious infections. To prevent life-threatening infections, all patients scheduled for splenectomy should be vaccinated against *Haemophilus influenzae*, *Neisseria meningococcus*, and *Streptococcus pneumoniae* about 10 days before surgery.

deficient blood elements. Symptoms and complications of underlying disorders are also treated.

After splenectomy, the patient should have an intravenous line and receive fluids, medications (including pain relievers), and blood products as prescribed. The patient should be helped to a comfortable position in bed by correctly aligning his body alignment. The abdominal assessment should include looking for abrasions or contusions, periumbilical ecchymosis, and abdominal distention, incisional bleeding, or infection or excessive drainage. Increases in the patient's abdominal girth may indicate postoperative blood loss into the abdominal cavity, bowel obstruction, or paralytic ileus. The abdomen should be auscultated for return or bowel sounds, palpated for areas of tenderness, pain, guarding, or rigidity, and percussed for hollow or dull sounds (hollowness indicates gaseous distention; dull sounds suggest intra-abdominal fluid, blood, or solid tissue). Repeat examinations of the patient should occur on a scheduled basis until postoperative stability is ensured. Fevers may suggest peritonitis; decreased urinary output, tachycardia, and hypotension may indicate third-spacing or bleeding. The patient should be assessed for restlessness, agitation, and disorientation and watched for subtle changes that indicate hypoxemia or inadequate organ perfusion. Nasogastric drainage via low or intermittent suction is administered as prescribed. Sequential laboratory studies include white blood cell counts, hemoglobin levels, serum chemistries, coagulation factors, and platelets. Significant changes from prior levels should be noted. Sudden or progressive decompensation of the patient's hemodynamic status may well necessitate reoperation. If a splenectomy patient becomes unstable, breathing should be supported with high-flow oxygen with a non-rebreather mask; and vascular access established and reinforced using a 16- or 18-gauge intravenous catheter; fluids should be administered by bolus to increase blood pressure, decrease heart rate, and increase urine output to 50 to 100 ml/hr. Blood products should be typed and cross-matched. Throughout his the hospitalization, the patient and family will require physical, emotional, informational, and in some cases, spiritual support and care. Discharge instructions should be reviewed with the patient, and a printed copy provided for reinforcement. Restrictions may be placed on heavy lifting, stretching, and sports activities for a period of 6 weeks to 6 months. Follow-up appointments should be arranged with the attending physician, surgeon, or primary health

PATIENT CARE: Preoperatively, the patient is prepared for open abdominal or laparoscopic surgery by agency/surgeon protocol, and postoperative care and concerns are explained. Blood or blood products are transfused to replace

care provider as required. Postsplenectomy patients should wear a MedicAlert device bracelet to alert future caregivers of their status.

splenectopia, splenectomy (splē'nēk-tō'pē-ā, -nēk'tō-pē) [" + *ektos*, out of place] Floating spleen.

splenelcrosis (splē'nēl-kō'sīs) [" + *helkosis*, ulceration] Ulceration or abscess of the spleen.

splenemia (splē-nē'mē-ā) [Gr. *splen*, spleen, + *haima*, blood] **1.** Splenic congestion with blood. **2.** Leukemia with splenic hypertrophy.

spleneolus (splē-nē'ō-lūs) Accessory spleen.

splenic (splēn'ik) [Gr. *splenikos*] **1.** Pert. to the spleen. **2.** Suffering with chronic disease of the spleen. **3.** Surly, fretful, impatient. SYN: *splenetic*.

splenic cord A spongelike cord in the red pulp of the spleen composed of macrophages and dendritic cells. The macrophages phagocytize pathogens, cell debris, and cells that are old, abnormal, or damaged, esp. red blood cells. Phagocytosis may be increased when the spleen is enlarged (splenomegaly).

splenic nodule A concentrated mass of white pulp in the spleen. SYN: *malpighian body* (2).

splenic sinus Any of the vascular collecting channels that lead into the internal veins of the spleen. The microcirculation in the spleen is quite leaky. Some capillaries empty directly into the splenic sinuses, but others allow blood to percolate through the extracellular red pulp before it drains into the splenic sinuses and thence into the veins.

splenic vein The vein carrying blood from the spleen to the portal vein.

spleniform (splēn'ī-form) [" + L. *forma*, form] Resembling the spleen.

splenitis (splē-nī'tīs) [" + *itis*, inflammation] Inflammation of the spleen, usually as a result of infection.

ETIOLOGY: Typical causes may include viral (e.g., mononucleosis), bacterial (e.g., bartonellosis, Lyme disease), or fungal (e.g., actinomycoses) infections.

splenium (splē'nē-ūm) [Gr. *splenion*, bandage] **1.** A compress or bandage. **2.** A structure resembling a bandaged part.

s. corporis callosi The thickened posterior end of the corpus callosum.

splenius (splē'nē-ūs) A flat muscle on either side of the back of the neck and upper thoracic area. SEE: *muscle* for illus.

spleno- Combining form meaning *spleen*.
splenocele (splē'nō-sēl) [Gr. *splen*, spleen, + *kele*, tumor, swelling] **1.** A hernia of the spleen. **2.** Splenoma.

splenoceleisis (splē'nō-klī'sīs) [" + *kleisis*, closure] Friction on the surface of the spleen or application of gauze in

order to induce the formation of fibrous tissue.

splenocolic (splē'nō-kōl'ik) [" + *kolon*, colon] Pert. to the spleen and colon or reference to a fold of peritoneum between the two viscera.

splenocyte (splē'nō-sīt') [" + "'] A monocyte found in the spleen or in splenic tissue.

splenodynia (splē'nō-dīn'ē-ā) [" + *odyne*, pain] Pain in the spleen. SYN: *splenalgia*.

splenogenic, splenogenous (splē'nō-jēn'ik, splē-nōj'ēn-ūs) [" + *gennan*, to produce] Originating in the spleen.

splenography (splē-nōg'rā-fē) [" + *graphein*, to write] **1.** A radiographical image of the spleen. **2.** A treatise on or a description of the spleen.

splenoid (splē'noyd) [" + *eidos*, form, shape] Resembling the spleen.

splenolaparotomy (splē'nō-lāp'ā-rōt'ō-mē) [" + *lapara*, flank, + *tome*, incision] Incision through the abdominal wall to access the spleen.

splenology (splē-nōl'ō-jē) [" + *logos*, word, reason] The study of functions and diseases of the spleen.

splenolymphatic (splē'nō-līm-fāt'ik) [" + L. *lymphā*, lymph] Concerning the spleen and lymph nodes.

splenolysin (splē-nōl'ī-sīn) [" + *lysis*, dissolution] An antibody that destroys splenic tissue.

splenolysis (splē-nōl'ī-sīs) Destruction of splenic tissue.

splenoma (splē-nō'mā) *pl.* **splenomasmata** [" + *oma*, tumor] A splenic hamartoma. SYN: *splenocele* (2).

splenomalacia (splē'nō-mā-lā'shē-ā) [" + *malakia*, softening] Softening of the spleen.

splenomedullary (splē'nō-méd'ū-lēr'ē) [" + L. *medulla*, marrow] Concerning the spleen and bone marrow, or originating in the spleen and bone marrow. SYN: *spleno-myelogenous*.

splenomegaly (splē'nō-mē-gā'lē, -mēg'ā-lē) [" + *megas*, large] Enlargement of the spleen. Causes for splenomegaly include portal hypertension, infections (such as leishmaniasis), autoimmune diseases, and blood disorders (such as some lymphomas, leukemias, and myeloproliferative disorders). It is frequently associated with anemia, leukopenia, and/or thrombocytopenia. Splenomegaly may cause a sense of discomfort in the left upper quadrant of the abdomen, particularly after eating. SEE: *spleen*.

congestive s. Enlargement of the spleen caused by various types of venous congestion: splenic vein obstruction, systemic venous congestion (e.g., due to heart failure), or portal vein hypertension caused by cirrhosis of the liver. Blood flow through the spleen is slowed, increasing red blood cell de-

struction by macrophages (hypersplenism) and resulting in focal hemorrhages. SEE: *Banti's syndrome*.

hemolytic s. Enlarged spleen associated with hemolytic anemia. The increased rigidity of red blood cell membranes results in their increased destruction as they attempt to move from splenic cords into the vascular sinuses. SEE: *spleen*.

splenomyelogenous (splē-nō-mī'ē-lōj'ē-nūs) [*"* + *myelos*, marrow, + *genan*, to produce] Splenomedullary.

splenomyelomalacia (splē-nō-mī'ēl-ō-mā-lā'shē-ā) [*"* + *malakia*, softening] Abnormal softening of the spleen and bone marrow.

splenephric (splē'nō-nēf'rik) [*"* + *nephros*, kidney] Rel. to the spleen and kidney. SYN: *lienorenal*.

splenopancreatic (splē'nō-pān'krē-āt'ik) [*"* + *pankreas*, pancreas] Rel. to the spleen and pancreas.

splenopathy (splē-nōp'ā-thē) [*"* + *pathos*, disease, suffering] Any disorder of the spleen.

splenopexy (splē'nō-pēk'sē) [*"* + *pexis*, fixation] Artificial fixation of a movable spleen.

splenephrenic (splēn-ō-frēn'ik) [*"* + *phren*, diaphragm] Concerning the spleen and diaphragm.

splenoportography (splē'nō-por-tōg'rā-fē) [*"* + *L. porta*, gate, + *Gr. graphēin*, to write] Radiography of the spleen and portal vein after injection of a radiopaque contrast medium into the spleen.

splenoptosis (splē'nōp-tō'sis) [*"* + *ptosis*, a dropping] Downward displacement of the spleen.

splene renal (splē'nō-rē'nāl) Pert. to the spleen and kidney.

splene renal shunt Anastomosis of the splenic vein to the renal vein to enable blood from the portal system to enter the general venous circulation; performed in cases of portal hypertension.

spleno rragia (splē'nō-rā'jē-ā) [*"* + *rhegnynai*, to burst forth] Hemorrhage from a ruptured spleen.

spleno rraphy (splē-nor'ā-fē) [*"* + *rhaphe*, seam, ridge] Suture of a wound of the spleen.

spleno tomy (splē-nōt'ō-mē) [*"* + *tome*, incision] Incision of the spleen.

spleno toxin (splē'nō-tōks'in) [*"* + *toxikon*, poison] Cytotoxin having specific action on splenic cells.

splenu lus, splenu culus (splēn'ū-lūs) [*L.*, a little spleen] A rudimentary or accessory spleen.

splice (splis) To take two cut pieces and fasten them together; to link two cut segments of DNA.

spliceosome (spli'sē-ō-sōm) A multipart ribonucleoprotein complex within the nucleus of cells that splices exons and

introns from pre-messenger RNA during the regulation of protein synthesis.

splint (splint) [MD. *splinte*, a wedge] An appliance made of bone, wood, metal, plastics, composites, or plaster of Paris used for the fixation, union, or protection of an injured part of the body. It may be movable or immovable.

Agnew's s. A splint used in fractures of the patella and metacarpus.

air s. A lightweight splint used for immobilizing fractured or injured extremities. It is usually an inflatable cylinder, open at both ends, that becomes rigid when inflated, thus preventing the part confined in the cylinder from moving. SYN: *blow-up splint*; *inflatable splint*.



Because of the tendency for the air cast to straighten out the limb as it is inflated, this device should not be used to immobilize joint dislocations or fractures with gross displacement.

airplane s. An appliance usually used on ambulatory patients in the treatment of fractures of the humerus. It takes its name from the elevated (abducted) position in which it holds the arm suspended away from the body.

anchor s. A splint for fracture of the jaw, with metal loops fitting over the teeth and held together by a rod.

Balkan s. A splint used for continuous extension in fracture of the femur.

banjo traction s. A splint made out of a steel rod bent to resemble the shape of a banjo. It provides anchor points for attachments to the fingers in the treatment of contractures and fractures of the fingers.

Bavarian s. An immovable dressing in which the plaster is applied between two layers of flannel.

Bennett double-ring s. SEE: *Bennett double-ring splint*.

blow-up s. Air s.

Bond's s. A splint used for fracture of the lower end of the radius.

Bowly's s. A splint used for fracture of the shaft of the humerus.

box s. A splint used for fracture below the knee.

Cabot's s. A splint composed of a metal structure placed posterior to the thigh and leg.

Carter's intranasal s. A steel bridge with wings connected by a hinge; used for operation of a depressed nasal bridge.

coaptation s. A small splint adjusted about a fractured part to prevent over-riding of the fragments of bones; usually covered by a longer splint for fixation of entire section.

cock-up s. A static splint designed to maintain the wrist in either extension or flexion.

cylinder s. A splint constructed around an injured bone to reduce the potential for flexion contractures.

Denis Browne s. A splint used to treat talipes equinovarus (clubfoot), consisting of a curved bar attached to the soles of a pair of high-topped shoes. It is often used in late infancy and applied at bedtime. Its use generally follows casting and manipulation to reduce the deformity.

dorsal blocking s. A splint constructed on the back of the hand to inhibit full extension of one or more of the finger joints and/or the wrist.

Dupuytren's s. A splint used to prevent eversion in Pott's fracture.

dynamic s. A splint that assists in movements initiated by the patient. SYN: *functional splint*.

finger s. A padded strip of malleable metal used to immobilize a fractured finger. As an alternative, the injured finger is often "buddy taped" to an adjoining finger for support.

flail arm s. ABBR: FAS. An upper-extremity orthotic device used to provide support and limited function, consisting of a shoulder-operated harness, a volar supporting structure made of low-temperature thermoplastic material, and a terminal device that allows the arm to grasp or stabilize objects.

Fox's s. A splint used for a fractured clavicle.

functional s. Dynamic s.

Gibson walking s. A splint that is a modification of a Thomas splint.

Gordon's s. A side splint used for the arm and hand in Colles' fracture.

inflatable s. Air s.

interdental s. A rigid or flexible device or compound used to support, protect, or immobilize teeth that have been loosened, replanted, fractured, or subjected to surgical procedures.

Jones' nasal s. A splint used for the fracture of nasal bones.

Levis' s. A splint of perforated metal extending from below the elbow to the end of the palm; shaped to fit the arm and hand.

McIntire's s. A splint shaped like a double inclined plane, used as a posterior splint for the leg and thigh.

occlusal s. A device fashioned to cover the incisal and occlusal surfaces of a dental arch to stabilize the teeth, treat bruxism, or facilitate proper occlusal positioning.

opponens s. A splint designed to maintain the thumb in a position to oppose the other fingers.

padded board s. A slat of wood, typically padded on one side and covered with plastic or cloth, to which an injured extremity can be fastened to immobilize it.

permanent fixed s. A nonremovable

prosthesis firmly attached to an abutment used to stabilize or immobilize teeth. A fixed bridge may serve as a permanent fixed splint for such support.

resting pan s. Splint designed to position the fingers and stabilize the hand in a functional position with the fingers held in opposition. Also called *resting hand splint*.

static s. Any orthosis that lacks movable parts and is used for positioning, stability, protection, or support.

sugar tong s. A splint commonly used instead of a cast to immobilize a Colles' fracture after it has been reduced. The splint permits the affected arm to swell without being compressed within the confines of the cast, yet maintain its alignment. Follow up x-rays of the fracture are typically obtained 5 to 7 days after placement of the splint to make certain that adequate reduction of the fracture is maintained.

temporary removable s. One of a variety of splints used for temporary or intermittent support and stabilization of the teeth.

tenodesis s. Orthosis fabricated to allow pinch and grasp movements through use of wrist extensors. Also called *wrist-driven flexor hinge hand splint*.

Thomas s. SEE: *Thomas splint*.

traction s. A splint that provides continual traction to a midshaft lower extremity fracture.

vacuum s. A negative-pressure device used to immobilize the extremities or torso after an injury. It may be used to safely transport the injured person. The splint consists of a nylon appliance filled with Styrofoam-like beads. The appliance is fitted around the injured body part and air is removed using a negative-pressure (vacuum) pump. As air is removed, the appliance conforms to the body part without straightening the limb. SEE: *illus.*



VACUUM SPLINT



Distal neurovascular function must be monitored after splint application. If decreased circulation or neurolog-

ical involvement is noted, the splint must be loosened immediately.

Volkman's s. A splint used for fracture of the lower extremity, consisting of a footpiece and two lateral supports.

splinter (splin'tēr) [MD. *splinte*, a wedge] **1.** A fragment from a fractured bone. **2.** A slender, sharp piece of material piercing or embedded in the skin or subcutaneous tissue.

splinter hemorrhage A small linear hemorrhage under the fingernails or toenails. It may be due to subacute bacterial endocarditis.

splinting (splint'ing) **1.** Fixation of a dislocation or fracture with a splint. Splints are also used to help support weak joints, to assist actively with functional movement, to immobilize to promote healing, and to protect from injury and deformity. **2.** Involuntary tensing of muscles to limit the pain that results from moving them or rubbing them over inflamed, internal body parts.

split (splīt) [D. *splitten*, to divide] **1.** A longitudinal fissure. **2.** Characterized by a deep fissure.

split foot Cleft foot.

split hand Cleft hand.

splitting (splīt'ing) [D. *splitten*, to divide] **1.** In chemistry, the breaking up of complex molecules into two or more simpler compounds. **2.** A defense mechanism found in some children and some patients with personality disorders, in which things are represented as being either very good (because they support one's desires or behaviors) or very bad (because they are obstructive to those desires or behaviors).

split tongue A cleft or bifid tongue resulting from developmental arrest.

SpO₂ The saturation of arterial blood with oxygen as measured by pulse oximetry, expressed as a percentage. SEE: *oximetry*.

spodogenous (spō-dōj'ēn-ūs) [Gr. *spodos*, ashes, + *gennan*, to produce] Caused by waste material.

spoligotyping (spōl'i-gō-tīp'ing) [Fm. *sp(acer) oligotyping*] The use of the polymerase chain reaction to identify pathogens, such as *Mycobacterium tuberculosis*, in laboratory specimens. It relies on the detection of unique spans of repeated DNA sequences found between the active genes of the pathogen. Culture-based methods of identifying mycobacteria are slow, often taking as long as 4 to 6 weeks to identify microorganisms in sputum or blood. DNA fingerprinting requires considerable technical expertise. Spoligotyping is simpler, more economical, and a more efficient means of identifying slowly growing microorganisms. SYN: *spacer oligotyping*.

sponde (spōn-dē) Two-syllable words

that receive equal stress on each syllable.

sponde threshold [Fr., a two-syllable word with equal stress on each syllable] In audiometry, the intensity at which speech is recognized as a meaningful symbol. This is tested by presenting, through an audiometer, two-syllable words in which each symbol is accented equally. SEE: *audiometry*.

spondyl- (spōn'dīl) SEE: *spondylo-*.

spondylalgia (spōn'dil-äl'jē-ä) [Gr. *spondylos*, vertebra, + *algos*, pain] Painful condition of a vertebra.

spondylarthritis (spōn'dil-är-thrī'tis) [+ *arthron*, joint, + *itis*, inflammation] Inflammation of the joints of the vertebrae; arthritis of the spine. SEE: *spondylitis*.

spondylitic (spōn'dī-lit'ik) [+ *itis*, inflammation] **1.** A person with spondylitis. **2.** Concerning spondylitis.

spondylitis (spōn-dil-i'tis) [+ *itis*, inflammation] Inflammation of one or more vertebrae.

ankylosing s. ABBR: AS. A chronic progressive inflammatory disorder that, unlike other rheumatological diseases, affects men more often than women. It involves primarily the joints between articular processes, costovertebral joints, and sacroiliac joints, and occasionally the iris or the heart valves. Bilateral sclerosis of sacroiliac joints is a diagnostic sign. Affected persons have a high incidence of a specific human leukocyte antigen (HLA-B27), which may predispose them to the disease. Changes occurring in joints are similar to those seen in rheumatoid arthritis. Ankylosis may occur, giving rise to a stiff back (poker spine). Nonsteroidal anti-inflammatory drugs and physical therapy are the primary forms of treatment. SYN: *Marie-Strümpell spondylitis*; *rheumatoid spondylitis*.

s. deformans Inflammation of the vertebral joints resulting in the outgrowth of bone-like deposits on the vertebrae, which may fuse and cause rigid and distorted spine.

hypertrophic s. A condition in which bodies of vertebrae hypertrophy; it occurs in most people over 50. Bony changes such as facet degeneration and the formation of bone spurs commonly occur.

Kümmell's s. A traumatic spondylitis in which symptoms do not appear until some time after the injury.

Marie-Strümpell s. Ankylosing s.

rheumatoid s. Ankylosing s.

tuberculous s. Pott's disease. SEE: under *Pott, John Percivall*.

spondylizema (spōn'dil-i-zē'mä) [Gr. *spondylos*, vertebra, + *izema*, depression] Downward displacement of a vertebra caused by the disintegration of the one below it.

spondylo-, spondyl- Combining form meaning *vertebra*.

spondylodymus (spŏn'dī-lŏd'ī-mūs) [" + *didymos*, twin] Twin fetuses joined at the vertebrae.

spondylodynia (spŏn'dī-lŏ-dīn'ē-ă) [" + *odyne*, pain] Pain in a vertebra.

spondylolisthesis (spŏn'dī-lŏ-līs'thē'sīs) [" + *obliethesis*, a slipping] Any forward slipping of one vertebra on the one below it. Predisposing factors include spondylolysis, degeneration, elongated pars, elongated pedicles, and birth defects in the spine such as spina bifida. SYN: *spondyloptosis*. SEE: *retrospondylolisthesis*.

spondylolisthetic (spŏn'dī-lŏ-līs-thēt'ik) Concerning spondylolisthesis.

spondylolysis (spŏn'dī-lŏl'ī-sīs) [" + *lysis*, dissolution] The breaking down of a vertebral structure.

spondylomalacia (spŏn'dī-lŏ-mă-lă'shē-ă) [" + *malakia*, softening] Softening of the vertebrae.

spondylopathy (spŏn'dīl-ŏp'ă-thē) [" + *pathos*, disease, suffering] Any disorder of the vertebrae.

spondyloptosis (spŏn'dī-lŏ-tŏ'sīs) [" + *ptosis*, a dropping] Spondylolisthesis.

spondylopyosis (spŏn'dī-lŏ-pī-ŏ'sīs) [" + *pyosis*, suppuration] Suppuration with inflammation of a vertebra.

spondyloschisis (spŏn'dī-lŏs'ki-sīs) [" + *schisis*, a splitting] A congenital fissure of one or more of the vertebral arches. SYN: *rhachischisis*.

spondylolysis (spŏn'dī-lŏ'sīs) [Gr. *spondylos*, vertebra, + *osis*, condition] Vertebral ankylosis.

cervical s. Degenerative arthritis, osteoarthritis, of the cervical or lumbar vertebrae and related tissues. It may cause pressure on nerve roots with subsequent pain or paresthesia in the extremities. SYN: *lumbar spondylolysis*.

lumbar s. Cervical spondylolysis.


rhizomelic s. Ankylosis interfering with movements of the hips and shoulders.

spondylosyndesis (spŏn'dī-lŏ-sīn'dē-sīs) [" + *syndesis*, a binding together] Surgical formation of an ankylosis between vertebrae.

spondylotomy (spŏn'dīl-ŏt'ŏ-mē) [" + *tome*, incision] Removal of part of the vertebral column to correct a deformity. SYN: *rachitomy*.

spondylous (spŏn'dī-lūs) [Gr. *spondylos*, vertebra] Concerning a vertebra.

sponge (spŏnj) [Gr. *sphongos*, sponge]

 1. Elastic, porous mass forming the internal skeleton of certain marine animals; or rubber or synthetic substance that resembles a sponge in properties and appearance. SYN: *spongia*. 2. An absorbent pad made of gauze and cotton used to absorb fluids and blood in surgery or to dress wounds. 3. Short term

for sponge bath. 4. To moisten, clean, cool, or wipe with a sponge.

abdominal s. A flat sponge from .5 to 1 in. (1.27 to 2.54 cm) thick, 3 to 6 in. (7.62 to 15.24 cm) in diameter, used as packing, to prevent closing or obstruction by intrusion of viscera, as covering to prevent tissue injury, and as absorbents.

contraceptive s. A sponge impregnated with a spermicide. It is used intravaginally during sexual intercourse as a method of contraception. SEE: *illus*. SYN: *spermicidal sponge*. SEE: *contraceptive*.

gauze s. A sterile pad made of absorbent material. It is used during surgery and in wound dressing materials.

gelatin s. A spongy substance prepared from gelatin. This nonantigenic, readily absorbable material is used esp. to stop internal bleeding (e.g., during surgery or during procedures in which blood vessels are occluded by embolization).

spermicidal s. Contraceptive s.

spongia (spŏn'jē-ă) [Gr. *sphongos*, sponge] Sponge.

spongiform (spŏn'jī-form) [Gr. *sphongos*, sponge, + *L. forma*, shape] Having the appearance or quality of a sponge. SYN: *spongioid*.

spongio- Combining form meaning *sponge*.

spongioblast (spŏn'jē-ŏ-blăst) [" + *blastos*, germ] A cell that develops with the embryonic neural tube. It is a precursor of ependymal cells and astrocytes.

spongioblastoma (spŏn'jē-ŏ-blăst-ŏ-mă) [" + " + *oma*, tumor] A glioma of the brain derived from spongioblasts.

spongiocyte (spŏn'jē-ŏ-sīt) [" + *kytos*, cell] A neuroglial cell.

spongioid (spŏn'jē-ŏyd) [" + *eidōs*, form, shape] Spongiform.

spongiolysis (spŏn'jē-ŏ-sīt'is) [" + *itis*, inflammation] Inflammation of the corpus spongiosum of the urethra.

spongy (spŏn'jē) Resembling a sponge in texture.

sponsor A mentor or supporter.

spontaneous (spŏn-tă'nē-ūs) [L.] Occurring unaided or without apparent cause; voluntary.

spontaneous breathing trial A method of assessing a patient's readiness for weaning from mechanical ventilation in which the patient is allowed to breathe on his or her own through a t-piece or while on the ventilator but with only minimal pressure support. A patient who breathes comfortably for a half an hour without support while maintaining stable oxygenation and hemodynamics can be safely disconnected from mechanical ventilation.

spontaneous intracranial hypotension A chronically recurring headache caused



CONTRACEPTIVE SPONGE

by leakage of cerebrospinal fluid (CSF) into the epidural space; it worsens when a person stands and improves on lying down. It is typically found in those with connective tissue disorders. The leakage of CSF limits the quantity of fluid in which the brain floats, drawing the brain toward the foramen magnum and base of the skull. Applying a blood patch to alleviate the leakage resolves the symptoms in most patients.

spoon [AS. *span*, a chip] Instrument consisting of a small bowl on a handle used in scooping out tissues or tumors or in measuring quantities.

sporadic (spō-rād'ik) [Gr. *sporadikos*] Occurring irregularly, alone, or without linkage to other events. SEE: *endemic; epidemic; pandemic*.

sporangiophore (spō-rān'jē-ō-for) [Gr. *sporos*, seed, + *angeion*, vessel, + *phoros*, a bearer] In microbiology, the supporting stalk for a spore sac of certain fungi.

sporangium (spō-rān'jē-ūm) A sac enclosing spores, seen in certain fungi.

spore (spor) [Gr. *sporos*, seed] **1.** A cell produced by fungi for reproduction. Spores may remain dormant yet viable for months. Cooking destroys spores, but pathogenic spores are usually inhaled rather than ingested. **2.** A resistant cell produced by bacteria to withstand extreme heat or cold or dehydration; such spores may remain viable for decades. Important spore-forming bac-

teria include the causative agents of tetanus, botulism, and gas gangrene. The spores are heat-resistant and can survive an hour of boiling, but they can be destroyed by steam under pressure (i.e., autoclave). **3.** An airborne particle (fungal, bacterial, or derived from mosses or ferns) that may trigger an allergic response when inhaled. **4.** A stage in the life cycle of some parasitic protozoa that contains infective sporozoites.

sporicide (spor'ī-sid) An agent that destroys bacterial and mold spores. Because spores are more difficult to kill than vegetative cells, a sporicide also acts as a sterilizing agent. **sporicidal** (-āl), *adj.*

sporiferous (spor-īf'ēr-ūs) [ʹ + *L. ferre*, to bear] Producing spores.

spork (spork) An adapted utensil for persons with limited upper extremity function. The distal end may swivel to allow food to remain level as a result of gravitational force. The bowl end is shaped like a spoon but has modified tines, like a fork.

sporoblast (spor'ō-blāst) [ʹ + *blastos*, germ] The structure within the oocyst of certain parasitic protozoa (*Eimeria* and *Isospora*) that gives rise to a sporocyst and eventually a spore.

sporocyst (spor'ō-sīst) [ʹ + *kystis*, sac] **1.** Any sac containing spores or reproductive cells. **2.** A sac secreted around a sporoblast by certain protozoa before spore production. **3.** A stage in the life cycle of a trematode worm usually found

in the tissues of the first intermediate host, a mollusk. It develops from a miracidium and is essentially a germinal sac containing germ cells. It gives rise to daughter sporocysts or rediae.

sporogenesis (spor'ō-jěn'ĕ-sīs) [Gr. *sporos*, seed, + *genesis*, generation, birth] The production or formation of spores. SYN: *sporogeny*; *sporogony*.

sporogenic (spor'ō-jĕn'ĭk) [ʹ + *gennan*, to produce] Having the ability of developing into spores.

sporogenous (spor'ōj'ĕ-nūs) [ʹ + *gennan*, to produce] Concerning sporogenesis.

sporogeny (spor'ōj'ĕ-nĕ) Sporogenesis.

sporogony (spor'ōg'ĕ-nĕ) [ʹ + *goneia*, generation] Sporogenesis.

sporophore (spor'ō-for) [ʹ + *phoros*, bearing] The spore-bearing portion of an organism.

sporophyte (spor'ō-fit) [ʹ + *phyton*, plant] The spore-bearing stage of a plant exhibiting alternation of generations.

sporoplasm (spor'ō-plāzm) [ʹ + LL. *plasma*, form, mold] The cytoplasm of spores.

Sporothrix (spor'ō-thrĭks) A genus of fungi of the family Moniliaceae.

S. schenckii The causative agent of sporotrichosis.

sporotrichin (spor'ō'trĭ-kĭn) An antigenic substance derived from *Sporothrix* organisms and used for diagnostic purposes.

sporotrichosis (spor'ō-trĭ-kō'sĭs) [ʹ + *thrix*, hair, + *osis*, condition] A chronic granulomatous infection usually of the skin and superficial lymph node, marked by the formation of abscesses, nodules, and ulcers and caused by the fungus *Sporothrix schenckii*. SYN: *rose-handler's disease*.

Sporozoa (spor'ō-zō'ă) [ʹ + *zoon*, animal] A class of parasitic protozoa of the phylum Apicomplexa (apical microlobule complex), kingdom Protista. The mature forms lack a means of self-locomotion. Important genera are *Plasmodium*, *Toxoplasma*, *Cryptosporidium*, *Microsporidia*, and *Isoospora*.

sporozoan (spor'ō-zō'ăn) A protozoan belonging to the group formerly called Sporozoa.

sporozoite (spor'ō-zō'ĭt) [ʹ + *zoon*, animal] An elongated sickle-shaped cell that develops from a sporoblast within the oocyst in the life cycle of malaria. Upon bursting of the oocyst within a mosquito, sporozoites are released into the body cavity and make their way to the salivary gland. They are introduced into human blood by a mosquito and almost immediately enter liver cells, where they go through two schizogonic divisions and then reenter the bloodstream and infect erythrocytes.

sport [ME. *sperten*, to divert] Mutation.

sports medicine SEE: *medicine, sports*.

sports vision The use of eye safety procedures, ophthalmology, optometry, and visual training to protect or enhance athletic performance.

sporular (spor'ū-lār) [L. *sporula*, little spore] Concerning a spore.

sporulation (spor'ū-lā'shūn) [L. *sporula*, little spore] 1. The production of spores, a method of reproduction in fungi, mosses, and ferns. 2. Bacterial production of spores, resistant forms that can withstand extremes of heat and cold, and dehydration.

spot (spôt) [MD. *spotte*] 1. A small surface area differing in appearance from its surroundings. SYN: *macula*. 2. Randomly collected, as in the phrase "spot" urine specimen.

ash-leaf s. White macules found on the trunk and extremities of persons with tuberous sclerosis.

Bitot's s. SEE: *Bitot's spots*.

blind s. 1. Physiological scotoma situated 15° to the outside of the visual fixation point; the point where the optic nerve enters the eye (optic disk), a region devoid of rods and cones. SEE: *scotoma*. 2. In psychiatry, the inability of an individual to have insight into his or her own personality.

blue s. Mongolian s.

Brushfield s. SEE: *Brushfield spots*.

cherry-red s. A red spot occurring on the retina in children with Tay-Sachs disease.

cold s. An area on a nuclear medicine scan in which no radioactive tracer is taken up, indicative of nonfunctioning tissue in a gland or other structure.

corneal s. Leukoma.

Fordyce's s. SEE: *Fordyce's disease*.

genital s. The area on the nasal mucosa that tends to bleed during menstruation. SEE: *menstruation, vicarious*.

hot s. 1. An area on the surface of the skin that, when stimulated, causes a sensation of warmth. 2. In a nuclear medicine scan, a region of the image that shows an abnormally high concentration of injected isotope. 3. Any location that has been radioactively contaminated.

hypnogenic s. Hypnogenic zone.

liver s. SEE: *liver spots*.

milk s. A dense area of macrophages in the omentum.

mongolian s. One of the blue or mulberry-colored spots usually located in the sacral region. It may be present at birth in Asian, American Indian, black, and Southern European infants, and usually disappears during childhood. SYN: *blue spot*. SEE: *illius*.

rose s. Rose-colored maculae occurring on the abdomen or loins in typhoid fever.

ruby s. Cherry angioma.



MONGOLIAN SPOTS

white s. Light-colored, elevated areas of various sizes occurring on the ventricular surface of the anterior leaflet of the mitral valve in endocarditis.

yellow s. Macula (3).

spot compression The application of local pressure to a region of the breast in which an anomaly was found during routine mammography. The locally imaged portion of breast tissue is magnified by compression and easier to view than the surrounding breast tissue because the volume of tissue in the image is minimized.

spotted fever A general, imprecise name for a variety of infectious diseases (including typhus and rickettsial illnesses) characterized by fever and rash. SEE: *Rocky Mountain spotted fever*.

spotting The appearance of blood-tinged discharge from the vagina, usually between menstrual periods or at the onset of labor.

spouse 1. A partner in marriage. 2. A life partner. **spousal**, *adj.*

spp *species* (plural).

sprain (sprān) [O.Fr. *espraindre*, to wring] Trauma to ligaments that causes pain and disability, depending on the degree of injury to the ligaments. In the most severe sprain, ligaments are completely torn. The ankle joint is the most often sprained. SEE: *fracture*; *strain*.

SYMPTOMS: Pain may be accompanied by heat, discoloration, and localized swelling in the affected area. Moderate to severe sprains are marked by joint laxity, reduced range of motion, and limitation of function. When the sprained ligament is contiguous with the joint capsule (e.g., anterior talofibular ligament, medial collateral ligament), swelling occurs in the acute stage. When the sprain involves other intracapsular or extracapsular ligaments (e.g., calcaneofibular ligament, anterior cruciate ligament), swelling is slight or absent in the acute stage and progressively increases.

DIAGNOSIS: X-ray examination is often indicated, to rule out an avulsion fracture of the ligament's attachment.

TREATMENT: The affected part should be treated initially with ice or other cooling agents to limit inflammation and hypoxic injury. Circumferential compression, in the form of an elastic wrap, should be applied to the joint and the limb elevated to reduce swelling. Joint range of motion should be restricted to patient tolerance through the use of immobilization devices, crutches, or both. Analgesics and nonsteroidal anti-inflammatory medications may be administered for pain and swelling. In the chronic stage of the injury, massage, intermittent compression, and muscle contractions can be used to reduce swelling.

s. of ankle Trauma to the ligaments of the ankle and foot, possibly involving tendon injury, but without an avulsion. Sprains of the lateral ligaments (most commonly the anterior talofibular ligament) account for approx. 90% of all ankle sprains. SEE: *Nursing Diagnoses Appendix*.

TREATMENT: SEE: *sprain* for treatment.



Ice should not be applied directly to the foot and ankle in patients who are elderly or who have cold allergy or circulatory insufficiency.

s. of back Overstretching of the spinal ligaments, often involving the surrounding muscles and spinal structures. Small fractures of the vertebrae are often associated.

TREATMENT: Treatment includes superficial moist heat and rest. If muscle spasm is present, muscle relaxants, nonsteroidal anti-inflammatory drugs, or both, may be prescribed. After the acute symptoms have subsided, strengthening and flexibility programs are prescribed.



If back pain develops after acute trauma, or if the patient has a known history of cancer, the patient should not be moved until the possibility of a fracture has been ruled out. Persons with a history of back pain and fever or back pain and injection drug use should be evaluated for spinal epidural abscess.

s. of foot Trauma to the ligaments of the foot not involving the ankle.

high ankle s. Syndesmotic ankle sprain.

syndesmotic ankle s. Damage to the ligamentous structures of the distal tibiofibular syndesmotic joint, resulting from dorsiflexion or external rotation of the talus within the ankle mortise, or both, which in turn causes spreading of the joint. The distal tibiofibular syndes-

mosis is formed by the anterior tibiofibular ligament, the interosseous membrane, and the posterior tibiofibular ligament. SYN: *high ankle sprain*.

ETIOLOGY: The rate of syndesmotic ankle sprains may be increased when athletes are participating on artificial surfaces, because of the increased friction between the shoe and playing surface.

SYMPTOMS: Patients may describe pain along the fibula, just superior to the lateral malleolus, that worsens during dorsiflexion or external rotation of the talus, or both.

spray (sprā) [MD. *spraeyen*, to sprinkle]

1. A jet of fine medicated vapor applied to a diseased part or discharged into the air. **2.** A pressurized container. SYN: *atomizer*. **3.** To discharge fluid in a fine stream.

pepper s. A chemical derived from chili peppers (capsaicin) that irritates the eyes, mucous membranes, and bronchi. It is commonly used by law enforcement personnel against individuals to help subdue and apprehend them.

spreader (sprēd'ēr) **1.** An instrument for distributing something evenly over a tissue or culture plate. **2.** A bacterial culture that, as it grows, spreads over the surface of the culture medium. **3.** A surgical instrument that divides and holds apart tissues or bones.

bladder-neck s. An instrument used to expose the bladder neck and prostatic cavity while doing a retropubic prostatectomy.

root canal s. In dentistry, an instrument that is pointed and of variable diameter and taper. It is used to apply force to the material used in filling a root canal.

spreading (sprēd'ing) [AS. *spraedan*, to strew] The extension of a bacterial culture on a growth medium.

spring [AS. *springan*, to jump] **1.** The season of the year that comes after winter and before summer. SYN: *vernal*. **2.** The quick movement of a body to its original position through its elasticity.

spring fever A feeling of lassitude, rejuvenation, or increased sex drive that affects some people in the spring.

spring finger Arrested movement of a finger in flexion or extension followed by a jerk. SYN: *trigger finger*.

sprout [ME. *spruten*] The new, germinated growth from a root, seed, or tuber.

alfalfa s. The initial growth from the germinated seeds of the legume alfalfa, eaten as a source of vegetable protein.

spruce (sproos) Any of the evergreen coniferous trees and shrubs of the genus *Picea* (family Piceaceae), widely found in the Northern Hemisphere. Known side effects of exposure to spruce dusts (e.g., in sawmill workers) include an increased incidence of reactive airways

diseases such as asthma. The gum of the spruce is used occasionally in complementary and alternative medicine as an expectorant.

sproe (sprou) [D. *sprouwe*] **1.** In dentistry, the wax, metal, or plastic used to form the aperture(s) through which molten gold or resin will pass to make a casting; also, the part of the casting that later fills the sprue hole. **2.** A disease of the intestinal tract characterized by malabsorption, weight loss, abdominal distention, bloating, diarrhea, and steatorrhea.

celiac s. A synonym for celiac disease.

collagenous s. Infiltration of the small intestine by collagen fibers. Clinically, the disease is similar to severe celiac sprue. It is resistant to treatment with a gluten-free diet and immunosuppressive drugs.

nontropical s. Celiac s.

tropical s. A disease endemic in Southeast Asia and the Caribbean, marked by diarrhea, nutrient malabsorption, anemia, fatigue, malnutrition, and edema. It is similar pathologically to celiac sprue although the involvement of the small intestine is often more extensive. Folate, iron, and vitamin B₁₂ deficiencies are common findings. The administration of folic acid and tetracyclines for 6 to 12 months provides effective treatment. SYN: *Hill diarrhea*.

spud (spüd) [ME. *spudde*, short knife] Short, flattened, spadelike blade to dislodge a foreign substance.

Spumavirus (spū'mā-vī'rūs) A genus of retroviruses occasionally transmitted to humans after exposure to the blood or body fluids of infected animals (e.g., apes, cats, or cattle). SYN: *foamy virus*.

spun glass hair syndrome Uncombable hair syndrome.

spur [AS. *spura*, a pointed instrument] **1.** A sharp or pointed projection. **2.** A sharp horny outgrowth of the skin.

bone s. The common term for an exostosis.

calcaneal s. An exostosis of the heel, often painful and resulting in disability. SYN: *heel spur*.

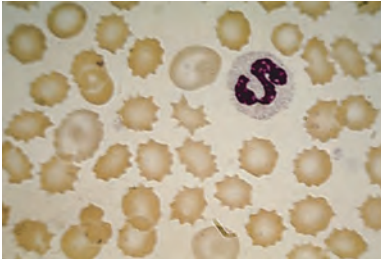
s. cell An erythrocyte with spikes caused by a membrane deformity. Spur cells are often seen in persons with alcoholic cirrhosis and congenital abetalipoproteinemia. SEE: *illus*.

femoral s. A spur sometimes present on the medial and underside of the neck of the femur.

heel s. Calcaneal s.

scleral s. Scleral fibers bordered anteriorly by the canal of Schlemm and the trabecular meshwork and posteriorly by the ciliary muscle fibers.

spurious (spū'rē-ūs) [L. *spurius*] Not true or genuine; adulterated; false.



SPUR CELLS

In severe liver disease ($\times 640$)

Spurling's maneuver, Spurling's test (spŭr'ling) Extending the patient's neck, moving the head to the affected side, and applying an axial load to the cervical spine to determine if symptoms of paresthesia or pain intensify. The maneuver is used in the physical assessment of patients with possible cervical nerve root compression. This test is not performed until the possibility of a cervical spine fracture or dislocation has been ruled out.

sputum (spŭ'tŭm) *pl. sputa* [L.] Mucus expelled from the lung by coughing. It may contain a variety of materials from the respiratory tract, including in some instances cellular debris, mucus, blood, pus, caseous material, and/or microorganisms.

CONDITIONS: A wide variety of illnesses, including typical and atypical pneumonias, tuberculosis, cancers of the lungs or bronchi, reactive airway disease, and occupational diseases of the lungs can be diagnosed with gram staining or culturing of sputum, cytological examination of sputum, or the use of special stains and microscopic techniques.



Sputum color or thickness cannot be relied on to diagnose any particular illness.

bloody s. Hemoptysis.

currant jelly s. Thick sputum mixed with clotted blood, typically seen in patients with pneumonia caused by *Klebsiella pneumoniae*.

nummular s. Sputum laden with round, coin-shaped solids.

prune juice s. Thin, reddish, bloody sputum.

rusty s. Blood-tinged purulent sputum sometimes seen in patients with pneumococcal pneumonia.

sputum cytology The examination of cells obtained from mucus in the upper or lower respiratory tract to see if cancer cells are present. SEE: *sputum specimen*.

sputum specimen A specimen of mucus

from the lungs expectorated through the mouth or obtained via tracheal suctioning with an in-line trap or bronchoscope. Sputum specimens are used to 1. identify the microorganism responsible for lung infections; 2. identify cancer cells shed by lung tumors; 3. aid in the diagnosis and management of occupational lung diseases. SEE: *postural drainage*.

PATIENT CARE: The procedure for coughing up a sputum sample is explained to the patient. The patient should increase fluid intake the evening prior to collection (unless otherwise restricted), brush his or her teeth, remove dentures, and gargle and rinse the mouth with to remove food particles. These directions may decrease the contamination of the specimen by bacteria in the mouth or the throat. Using the sterile collection container provided, the patient is instructed to take three deep breaths, then force a deep cough and expectorate into a sterile screw-top container. The specimen should be collected in the early morning before ingesting food or drink if possible. The nurse or respiratory therapist examines the specimen to differentiate between sputum and saliva, documents its characteristics (color, viscosity, odor) and volume, and records the date and time the specimen went to the laboratory and the reason the specimen was taken. Five to 10 ml of sputum is typically needed for laboratory analysis. A specimen will be rejected by the laboratory if it contains excessive numbers of epithelial cells from the mouth or throat or if it fails to show adequate numbers of neutrophils on gram staining. If the patient cannot cough up a specimen, the respiratory therapist can use sputum induction techniques such as heated aerosol (nebulization), followed in some instances by postural drainage and percussion. More invasive means of obtaining a sputum specimen are with suction or bronchoscopy. These techniques are used in intubated patients, and in those from whom an uncontaminated specimen is required.

The following procedures should be followed to obtain a specimen by suctioning: the operator should put on sterile gloves, and a face shield, mask, and gown to avoid exposure to airborne pathogens during the procedure; suction equipment, specimen containers and oxygenating devices should assembled at the bedside; the patient should be hyperoxygenated to an oxygen saturation of 99% to 100% before suctioning; suction is applied for about 10 to 15 sec, and the patient's respiratory and cardiac status are closely monitored for evidence of poor tolerance for the procedure. Sputum may also be collected

bronchoscopically, through the inner channel of the bronchoscope. Normal saline is used as an irrigating solution if needed, a technique known as bronchoalveolar lavage (BAL). BAL increases the likelihood of obtaining a diagnostic specimen, although on occasion the fluid used to irrigate the airways may contain local anesthetics, which, because they are bacteriostatic, may prevent bacteria from growing in culture. After bronchoscopy, the patient is observed closely for hypoxia and other possible complications, and oral liquids are withheld until the gag reflex has returned and the patient can swallow saliva without difficulty. All sputum specimens should be sent to the laboratory immediately and refrigerated. They should be treated as infective until proven otherwise. Appropriate isolation procedures are used for handling specimens. Common isolates from sputum specimens include *Staphylococcus aureus*, *Haemophilus influenzae*, *Streptococcus pneumoniae*, and *Moraxella catarrhalis*.

SQ *subcutaneous*.

squalamine (skwā'li-mēn") [L. *squalus*, dogfish + "] An antiangiogenic protein, originally isolated from dog sharks. It has been used to treat the neovascularization of age-related macular degeneration and to limit blood vessel proliferation needed by a cancer for it to spread and survive.

squalene (skwāl'ēn) An unsaturated carbohydrate present in shark-liver oil and some vegetable oils. It is an intermediate in the biosynthesis of cholesterol.

squam-, squamo- Combining forms meaning *scale*.

squama (skwā'mā) *pl. squamae* [L.]
1. A thin plate of bone. 2. A scale from the epidermis. SYN: *squame*.

squamate (skwā'māt) [L. *squama*, scale] Scaly.

squamization (skwā'mā-ti-zā'shūn) [L. *squama*, scale] The changing of cells into squamous cells.

squame (skwām) [L. *squama*, scale] Squama (2).

squamocellular (skwā'mō-sēl'ū-lār) [L. *squama*, scale, + *cellula*, little cell] Rel. to or having squamous cells.

squamocolumnar (skwā'mō-kō-lūm'nār) [" + "] Pertaining to any tissue in which squamous epithelium abuts columnar epithelium.

squamosa (skwā'mō'sā) *pl. squamosae* [L. scaly] 1. The squamous part of the temporal bone. 2. Scaly or platelike.

squamosal (skwā-mō'sāl) [L. *squama*, scale] Squamous.

squamous (skwā'mūs) [L. *squamosus*] Scalelike.

square knot SEE: under *knot*.

squatting position A position in which

the person crouches with legs drawn up closely in front of, or beneath, the body; sitting on one's haunches and heels.

squeeze-bottle A bottle made of a flexible, semirigid material that can be deformed by applying hand pressure to it. It is used to contain irrigating solutions, esp. those required in ophthalmology.

squill (skwīl) [Gr. *skilla*, a sea onion] An ancient remedy now rarely employed in medical practice, with therapeutic and toxic effects that mimic those of digoxin. It is derived from plants of the lily family.

squint (skwīnt) [ME. *asquint*, sidelong glance] 1. Abnormality in which the right and left visual axes do not bear toward an objective point simultaneously. SEE: *strabismus*. 2. To close the eyes partly, either to block out excess environmental light or to try to improve a refractive error of vision. 3. To be unable to direct both eyes simultaneously toward a point.

convergent s. Esotropia.

divergent s. Exotropia.

external s. Exotropia.

internal s. Esotropia.

Sr Symbol for the element strontium.

src Family of oncogenes involved in transforming normal cells to cancer cells. Src was the first transforming oncogene discovered. Proteins produced by these genes have tyrosine kinase activity. SEE: *oncogene*; *transformation*.

SRF *somatotropin releasing factor*.

sRNA *soluble ribonucleic acid*.

SRS, SRS-A *slow-reacting substance; slow-reacting substance of anaphylaxis*. SEE: *leukotriene*.

Sézary syndrome (sā'zā-rē) An advanced stage of cutaneous T-cell lymphoma in which there is widespread involvement of the skin and systemic circulation of malignant cells. SEE: *cutaneous T cell lymphoma*.

SS *saliva sample; soapsuds; sterile solution*.

ss [L. *semis*, half] 1. One half; *subjects*, as in ss of an experiment or clinical study. 2. Single strength.

SSD *source-skin distance*.

SSE *soapsuds enema*.

SSRI *selective serotonin reuptake inhibitor*

SSS *sterile saline soak*.

ST *sedimentation time*.

stab (stāb) [ME. *stob*, stick] 1. To pierce with a knife. 2. A wound produced by piercing with a knife or pointed instrument. 3. A stab culture.

stabile (stā'bīl) [L. *stabilis*, stable] Not moving; fixed.

stability 1. The condition of remaining unchanged, even in the presence of forces that would normally change the state or condition (e.g., a chemical com-

ound that remains unchanged, or a mature mental state that resists change). **2.** A measure of the ability of an aerosol to remain in suspension. This is determined by the size, type, and concentration of particles, the humidity, and the mobility of the gas in which the particles are transported.

limits of s. ABBR: LOS. The largest angle from vertical that can be reached and maintained before balance is lost. In normal adults, the sagittal plane limit is 12 degrees and the coronal plane limit is 16 degrees.

PATIENT CARE: The patient with decreased limits of stability has an increased likelihood of falling when he shifts his body from side to side and therefore an increased risk of injuring himself. Physical therapy, occupational therapy, personal assistance, or assistive devices may reduce this risk.

stability testing of pharmaceuticals The monitoring of a drug's quality and effectiveness throughout its shelf life.

stabilization (stā'bīl-ī-zā'shūn) [L. *stabilis*, stable] **1.** The act of making something, such as a body structure, chemical reaction, mood state, or disease process less variable, mobile, or volatile or more rigid. **2.** The fixation of a dental restoration, the mandible, or a tooth so that it will not move, especially under such conditions as chewing, speaking, or swallowing.

dynamic s. An integrated function of neuromuscular systems requiring muscles to contract and fixate the body against fluctuating outside forces, providing postural support with fine adjustments in muscle tension. The term usually pertains to a function of the trunk, shoulder, and hip muscles and includes the lower extremity muscles when they are functioning in a closed chain.

stable (stā'bl) **1.** Firm; steady. **2.** Of an atom or a chemical compound, not subject to spontaneous radioactivity; not readily decomposing. **3.** In psychology, not subject to emotional insecurity or illness.

stable condition A term used in describing a patient's status. It indicates that the patient's disease process has not changed precipitously or significantly.

Stachybotrys atra (ā'trā) *Stachybotrys chartarum*.

Stachybotrys chartarum (stāk'ē-bō'trīs kahr-tār'ūm) [NL] A mold that grows well on wood, plaster, insulation, tobacco products, and sheetrock. Inhalation of spores has been implicated in cases of fatigue, chronic headaches, and respiratory difficulties. SYN: *Stachybotrys atra*.

stachyose (stāk'ē-ōs") A nonabsorbable carbohydrate present in beans. Because

the substance is not absorbed or metabolized in the small intestine, it passes into the colon where it is acted on by bacteria to form gas. This may be related to the flatus produced by eating beans.

stack (stāk) [ME. *stak*] **1.** To place objects directly on top of others. **2.** To perform a procedure immediately after a preceding one, without interruption or pause.

stacked shock (stākt) In emergency cardiac care, defibrillation repeated immediately without resuming basic life support or cardiopulmonary resuscitation between the electrical discharges.

stadiometer (stā'dē-ōm'ā-tēr) [Gr. *stadium* + *meter*] A device used to measure body height, esp. of children.

stadium (stā'dē-ūm) [Gr. *stadiōn*, alteration] A stage or period in the progress of a disease. SEE: *fastigium*.

staff (stāf) [AS. *stæf*, a stick] **1.** An instrument to be introduced into the urethra and bladder as a guide to a surgical knife. **2.** The medical, nursing, and other personnel attached to a hospital.

attending s. The group of physicians and surgeons who have privileges to practice at a hospital.

consulting s. The physicians and surgeons attached to a hospital who may be consulted by members of the attending staff.

house s. A nonspecific term for physicians, esp. interns and residents and other allied health professionals employed as part of the medical care team for a hospital. They are supervised by the permanent hospital staff and receive training to meet the requirements for licensure or certification in their specialty. SEE: *teaching hospital*.

retention of s. Keeping employees on a stable roster without losses due to attrition, firing, or layoffs.

stage (stāj) [O.Fr. *estage*] **1.** Period in the course of a disease or in the life history of an organism. **2.** The platform of a microscope on which the slide is placed.

algid s. Cold and cyanotic skin that occurs in cholera and some other diseases.

anal s. In Freudian psychology, the second phase of sexual development, from infancy to childhood, in which the libido is concentrated in the anal region. In order of appearance, the phases of sexual development are oral, anal, phallic, and genital.

asphyxial s. The preliminary stage of Asiatic cholera.

cold s. The chill or rigor of a malarial paroxysm.

eruptive s. **1.** The period in which an exanthem appears. **2.** The middle stage in the pre-eruptive, eruptive, or post-eruptive categorization of tooth erup-

tion. It is characterized by root elongation and movement of the tooth mesially and toward the occlusal plane.

hot s. Febrile stage in a malarial paroxysm.

s. of invasion The period in which the causative agent is present in the body before the onset of a disease.

s. of latency The incubation period of an infectious disorder.

pre-eruptive s. The stage following an infection (e.g., with measles or chickenpox) before the characteristic rash appears.

resting s. Term sometimes used for a cell that is between mitotic divisions. It is not accurate because the cell is metabolically active and is producing a new set of chromosomes for the next division. SEE: *interphase*.

sweating s. The third or terminal stage of malaria during which sweating occurs.

stage 0 In situ, or noninvasive. Said of cancers.

staggers (stäg'ērzh) Vertigo and confusion that occur in decompression illness.

staging The process of classifying tumors, esp. malignant tumors, with respect to their degree of differentiation, to their potential for responding to therapy, and to the patient's prognosis.

stagnation (stäg-nā'shūn) [L. *stagnans*, stagnant] 1. Cessation of motion. 2. Stasis.

stain (stān) [O.Fr. *desteindre*, deprive of color] 1. Any discoloration. 2. A pigment or dye used in coloring microscopic objects and tissues. 3. To apply pigment to a tissue or microscopic object.

acid s. A chemical used to stain the cytoplasmic or basic components of cells.

acid-fast s. A stain used in bacteriology, esp. for staining *Mycobacterium tuberculosis*, *Nocardia*, and other species. A special solution of carbolfuchsin is used, which the organism retains in spite of washing with the decolorizing agent acid alcohol. SEE: *Ziehl-Neelsen method*.

basic s. A chemical used to add pigment to the nuclear or acidic components of cells.

Commission Certified s. A stain that has been certified by the Biological Stain Commission.

contrast s. A stain used to color one part of a tissue or cell, unaffected when another part is stained by another color.

counter s. Counterstain.

dental s. A discoloration accumulating on the surface of teeth, dentures, or denture base material, most often attributed to the use of tea, coffee, or tobacco. Many stains contain calcium, carbon, copper, iron, nitrogen, oxygen, and sulfur. Stains may be intrinsic or extrinsic. Extrinsic stains of teeth can be re-

moved, e.g. by brushing, rinsing, or sonication. Intrinsic stains cannot be removed by these methods.

differential s. In bacteriology, a stain such as Gram's stain that enables one to distinguish different types of bacteria.

double s. A mixture of two contrasting dyes, usually an acid and a basic stain.

Giemsa s. A stain that contains azure II-eosin and azure II. It is used to stain blood cells, Negri bodies, and chromosomes.

hematoxylin-eosin s. A widely used method of staining tissues for microscopic examination. It stains nuclei blue-black and cytoplasm pink.

intravital s. A nontoxic dye that, when introduced into an organism, selectively stains certain cells or tissues. SYN: *vital stain*.

inversion s. A basic stain that, when under the influence of a mordant, acts as an acid stain.

metachromatic s. A stain which causes cells or tissues to take on a color different from the stain itself.

neutral s. A combination of an acid and a basic stain.

nonspecific s. A dye added to a tissue specimen that binds to tissue indiscriminately, making it more difficult to distinguish one part from the next.

nuclear s. A basic stain that colors cell nuclei, but does not stain structures in the cytoplasm.

Perl's s. SEE: *Perl's stain*.

port-wine s. Nevus flammeus.

substantive s. A stain that is directly absorbed by the tissues when they are immersed in the staining solution.

supravital s. Stain that will color living cells or tissues that have been removed from the body.

tumor s. In arteriography, an abnormally dense area in a radiographical image caused by the collection of contrast medium in the vessels. This may be a sign of neoplastic growth.

vital s. Intravital s.

Wright's s. SEE: *Wright's stain*.

stained teeth Deep or superficial discoloration of teeth. A number of conditions cause this (e.g., exposure of the fetus to tetracycline the mother took during pregnancy or mottling caused by exposure to high levels of fluoride in drinking water). The stains may be covered by applying a resin or porcelain laminate veneer over the stain (bonding). The same technique may be used to rebuild or repair chipped or cracked teeth.

staining (stān'ing) [O.Fr. *desteindre*] The process of impregnating a substance, esp. a tissue, with pigments so that its components may be visible under a microscope.

staircase phenomenon The effect exhib-

ited by skeletal and heart muscle when subjected to rapidly repeated maximal stimuli following a period of rest. In the resulting series of contractions, each is greater than the preceding one until a state of maximum contraction is reached. SYN: *trappe*.

stair chair A device used to transport patients capable of being moved in a sitting position up or down a staircase or through narrow and confined spaces.

stalagmometer (stäl-äg-möm'è-tër) [Gr. *stalagmos*, dropping, + *metron*, a measure] An instrument for measuring the number of drops in a given amount of fluid.

stalk (stawk) [ME.] An elongated structure usually serving to attach or support an organ or structure.

body s. A bridge of mesoderm that connects the caudal end of the embryo with the chorion. It later forms the structural tissue of the umbilical cord.

optic s. The structure that connects the optic vesicle or cup to the forebrain.

pineal s. Pineal peduncle.

stalking A form of harassment in which one person repeatedly calls, follows, or writes to another even though these attempts at contact are disruptive, unwanted, or felt to be menacing by the person who is the object of attention.

stamina (stäm'î-nă) [L., thread of the warp, thread of human life] Inherent force, constitutional energy; strength; endurance.

stammering (stäm'er-îng) [AS. *stamerian*] Stuttering.

stanch (stönch) [O.Fr. *estanche*, firm] To stop the flow of blood from a wound.

standard [O.Fr. *estandard*, marking rallying place] That which is established by custom or authority as a model, criterion, or rule.

biological s. The standardization of drugs or biological products (vitamins, hormones, antibiotics) by testing their effects on animals. It is used when chemical analysis is impossible or impracticable.

reasonable patient s. In the giving of informed consent, the amount of information that a rational patient would want before making a choice to pursue or reject a treatment or procedure.

reasonable physician s. In the giving of informed consent, the amount of information that a typical physician would provide to patients before asking that they decide to pursue or reject a treatment.

standard of care **1.** A statement of actions consistent with minimum safe professional conduct under specific conditions, as determined by professional peer organizations. **2.** In forensic medicine, a measure with which the defendant's conduct is compared to determine negligence or malpractice. In negligence

law, the degree of care which a reasonable, prudent person should exercise under the same or similar circumstances.

standard deviation ABBR: S.D. SYMB: σ . In statistics, the commonly used measure of dispersion or variability in a distribution; the square root of the variance.

standard drink In alcohol-related research either one 12 oz serving of beer, 5 oz of wine, or 1.5 oz of distilled spirits.

standard error ABBR: S.E. A measure of variability that could be expected of a statistical constant following the taking of random samples of a given size in a particular set of observations. An important standard error is that of the difference between the means of two samples.

standardized assessment of concussion instrument, standardized assessment of concussion tool ABBR: SAC. A common battery of neurological, neuropsychological, and physical tests used to index the relative severity of sports-related traumatic brain injury (colloquially known as "concussion"). These results are also an indicator of an athlete's physical readiness to return to competition. The assessment includes tests of orientation, memory, concentration, cognition, and physical exertion.

standardized test A test that has been developed empirically, has adequate norms, definite instructions for administration, and evidence of reliability and validity.

standardized uptake value ABBR: SUV. The amount of radioactive tracer detected by a positron-emission tomographic scan during imaging of a body part. The SUV is equal to the tissue tracer taken up by the tissue of interest, divided by the injected dose of tracer, divided by the body weight of the patient. The SUV is used radiologically to distinguish benign masses from those that are cancerous; to monitor the response of cancerous masses to treatment with chemotherapy and/or radiation; and to assess the likelihood that a particular cancer will respond to treatment.

standard patient, standardized patient An actor who is trained to represent a patient during a clinical encounter with a health care provider. His or her performance is used in health-care education to help trainees recognize the signs and symptoms of diseases and how to gather and relay information during a patient interview.

standard precautions SEE: *precautions, standard*.

standard survey (of nursing home care) A regularly scheduled, on-site federal investigation of the quality of care provided in a nursing home. The survey assesses compliance with rules promulgated by Medicaid and Medicare.

standard temperature and pressure, dry ABBR: STPD. Gas volume at 0°C 760 mm Hg total pressure and partial pressure of water of zero (i.e., dry).

stand-by assistance Help provided to a person who cannot complete an activity of daily living on his own, e.g., the prevention of falls and injuries.

standing orders Orders, rules, regulations, protocols, or procedures prepared by the professional staff of a hospital or clinic and used as guidelines in the preparation and carrying out of medical and surgical procedures.

standstill A cessation of activity.

atrial s. Cessation of atrial contractions.

cardiac s. Cessation of contractions of the heart.

inspiratory s. The temporary cessation of inspiration normally following each inspiration, resulting from stimulation of proprioceptors in the alveoli of the lungs. SEE: *Hering-Breuer reflex*.

respiratory s. Cessation of respiratory movements.

ventricular s. Cessation of ventricular contractions.

Stanford-Binet IQ test (stän'fürd-bī-nā') [A. Binet, Fr. psychologist, 1857-1911; Stanford University, where the original test was revised by Louis Terman in 1916] A commonly used test of cognitive abilities. It assesses verbal and nonverbal reasoning by subtests that assess a person's language fluency, three-dimensional thought processes, and pattern recognition skills. The test was first used in the late 1800s as an approximate means of classifying and comparing intellectual function in broad groups of people. It has been revised many times since then and is used for a variety of purposes, including the classification of military recruits and the assessment of individuals thought to have subnormal intelligence.

stannic (stän'ik) [L. *stannum*, tin] 1. Resembling or containing tin. 2. In chemistry, containing tetravalent tin.

stannosis (stā-nō'sis) The deposition of tin oxide dust in the upper or lower respiratory tract. Patients may complain of irritation of the eyes, nasal passages, and other mucous membranes. Chest x-ray examination often reveals dust deposits in the lungs, but this form of pneumoconiosis does not cause lung injury or disease.

stannous (stän'ūs) [L. *stannum*, tin] 1. Resembling or containing tin. 2. In chemistry, containing divalent tin.

stannum (stän'üm) [L.] Tin.

stanazolol (stän'ō-zō-lōl") An anabolic steroid.

stapedectomy (stā'pē-dēk'tō-mē) [L. *stapes*, stirrup, + Gr. *ektome*, excision] Excision of the stapes to improve hearing, esp. in cases of otosclerosis. In pa-

tients with severely impaired hearing, the stapes is replaced by a prosthesis which is placed in the ear.

PATIENT CARE: After surgery the patient is instructed to keep head movements to a minimum and to refrain from blowing the nose or sneezing) for at least a week, and preferably two. Subsequently all nose blowing should be done with the mouth open. Dizziness or lightheadedness, bloody drainage from the ear, reduced hearing, and nose bleeding are common initial adverse effects of the surgery. To prevent falls caused by dizziness, the patient is kept at bedrest for the first day after surgery, and then gradually permitted freer ambulation, initially with someone to assist him or her. Bending, suddenly moving the head, lifting heavy weights, and straining during bowel movements should be initially avoided. The patient should not get the operated ear wet for at least 10 days postoperatively. For 30 days after surgery the patient should not fly; climb to high altitudes; dive, scuba, or snorkel (to avoid sudden pressure changes); or be exposed to loud sounds such as those produced by a jet aircraft. Sudden movements of the head should be avoided. Prior to discharge from the hospital, patient and family are taught about caring for the incision and changing the external ear dressing. The patient is warned to avoid contact with anyone with an upper respiratory infection. An appointment is scheduled for follow-up care. SEE: *Nursing Diagnoses Appendix*.

stapediotomy (stā-pē'dē-ō-tēn-ōt'ō-mē) ["/ + Gr. *tenon*, tendon, + *tome*, incision] Division of the tendon of the stapedius muscle.

stapediovestibular (stā-pē'dē-ō-vēs-tīb'ū-lar) ["/ + *vestibulum*, an antechamber] Rel. to the stapes and vestibule of the ear.

stapedius (stā-pē'dē-ūs) [L. *stapes*, stirrup] A small muscle of the middle ear inserted in the stapes.

stapes (stā'pez) [L., stirrup] The ossicle in the middle ear that articulates with the incus; commonly called the *stirrup*. The footplate of the stapes fits into the oval window. SEE: *ear*.

staphyledema (stāf'īl-ē-dē'mā) ["/ + *oidema*, swelling] Swelling of the uvula.

staphylene (stāf'ī-līn) [Gr. *staphyle*, a bunch of grapes] 1. Resembling a bunch of grapes. SYN: *botryoid*. 2. Rel. to the uvula. SYN: *uvular*.

staphylo- [Gr. *staphyle*, a bunch of grapes] Combining form indicating the uvula, pert. to or resembling a bunch of grapes, or pert. to *Staphylococcus*.

staphylococcal food poisoning SEE: *under poisoning*.

staphylococcal scalded skin syndrome Infection and inflammation of the outer

layers of skin, predominantly but not exclusively found in children, elderly persons, and immunosuppressed patients. It is caused by exotoxins produced by *Staphylococcus aureus*. Initially, the skin in the affected areas is rough, with a bright red, flat rash; it then becomes wrinkled, and blisters form. The syndrome is treated with antistaphylococcal antibiotics (e.g., nafcillin), and supportive care is provided to minimize the risk of cellulitis or pneumonia. About 2% to 3% of affected patients die of the disease. In survivors, the blisters heal without scarring.

TREATMENT: Beta-lactamase-resistant synthetic penicillin is given. The bullae and denuded skin should be treated symptomatically. Uncomplicated lesions heal without scarring. **SYN:** *Ritter's disease*.

staphylococemia (stáf'íl-ō-kōk-sē'mē-ā) [" + " + *haima*, blood] The presence of staphylococci in the blood.

Staphylococcus (stáf'íl-ō-kōk'ūs) [Gr. *staphyle*, a bunch of grapes, + *kokkos*, berry] A genus of micrococci belonging to the family Micrococcaceae, order Eubacteriales. They are gram-positive and when cultured on agar produce white, yellow, or orange colonies. Some species are pathogenic, causing suppurative conditions and elaborating exotoxins destructive to tissues. Some produce enterotoxins and are the cause of a common type of food poisoning. **staphylococcal**, *adj.*

S. aureus A species that is coagulase positive, often part of resident flora of the skin and the nasal and oral cavities. These bacteria may cause suppurative conditions such as boils, carbuncles, and abscesses, as well as hospital-acquired infections, foreign body (prosthetic) infections, and life-threatening pneumonia or sepsis. Various strains of this species produce toxins, including those that cause food poisoning, staphylococcal scalded skin syndrome, and toxic shock syndrome. Some strains also produce hemolysins and staphylokinase.

S. aureus, methicillin-resistant ABBR: MRSA. A strain of *S. aureus* resistant to methicillin. MRSA is resistant to all penicillins and cephalosporins. Patients with MRSA infections should be isolated; appropriate mask-gown-glove precautions must be used, depending on the site of the infection. MRSA is an important cause of health care associated infections. Handwashing is essential in caring for patients who harbor this organism. SEE: *isolation; resistance, antibiotic*.

MRSA is resistant to most antibiotics and is usually acquired in hospitals or nursing homes, spread from patient to patient by contaminated hands, clothing, and equipment. Infection with

MRSA can range from pneumonia to flesh-eating diseases. About 0.5% of people in the U.S. have MRSA bacteria on their skin or in their noses and, although not infected, can still spread the bacteria to those at risk. The CDC estimates that 90,000 people die annually in the U.S. from hospital-acquired infections; about 17,000 of these deaths are due to MRSA. Agencies can now reduce and perhaps stop the spread of MRSA infection by following the guidelines of a pilot program of the Pittsburgh, PA, Veterans Affairs Healthcare System.

PATIENT CARE: The Pittsburgh guidelines require that all patients have their noses swabbed for MRSA on admission and discharge. Those with MRSA are isolated from other patients and are cared for in protective isolation. Noninvasive equipment is disinfected after each use with these patients, and strict hand hygiene policies are applied. As a result, there was a drop of more than 70% of MRSA cases in surgical care units. The VA, because of the Pittsburgh results, plans to expand the program to more than 150+ VA hospitals nationwide. The CDC suggests screening high-risk patients (those with weak immune systems, intensive care patients, and patients in nursing homes), rather than recommending universal screening. However, Denmark, Finland, and the Netherlands have essentially eradicated MRSA by using universal screening methods. In addition to screening everyone, agencies may provide MRSA carriers with special soap and antibiotic nasal creams. Additionally, a gene-based MRSA test provides results in hours as opposed to days.

S. aureus, vancomycin-resistant ABBR: VRSA. A strain of *S. aureus* resistant to vancomycin that may become a serious nosocomial pathogen. Strains with intermediate resistance to vancomycin have caused life-threatening infections. SEE: *Standard Precautions Appendix*.

S. capitis A coagulase-negative *Staphylococcus* species that has been isolated from infections in premature neonates and patients with endocarditis.

S. caprae A coagulase-negative, DNase-positive *Staphylococcus* species first identified in goats. It can infect humans, e.g., in prosthetic joints and injured bones.

S. epidermidis A coagulase-negative species that is part of the normal flora of the skin. It may colonize, form biofilms on, and infect prosthetic devices and indwelling catheters.

S. haemolyticus A coagulase-negative *Staphylococcus* species that primarily infects premature neonates and

patients being treated for cancer or other critical conditions. It is frequently resistant to multiple common antibiotics.

S. hominis A coagulase-negative species frequently recovered from skin. It is not consistently pathogenic for humans.

S. lugdunensis An aggressive coagulase-negative *Staphylococcus* species.

S. saprophyticus A species that is the second most common cause of urinary tract infection in young, sexually active females. It is a rare cause of pneumonia.

staphylococcus (stăf'īl-ō-kōk'ūs) *pl.* **staphylococci** Any bacterium of the genus *Staphylococcus*. SEE: *bacteria* for illus.; *Staphylococcus*.

staphyloiderma (stăf'ī-lō-dēr'mă) [*"* + *derma*, skin] Cutaneous infection with staphylococci.

staphyloidermatitis (stăf'īl-ō-derm"ă-tī'tis) [*"* + *"* + *itis*, inflammation] A dermatitis caused by staphylococci.

staphylokinase (stăf'ī-lō-kī'nās) An exotoxin produced by some strains of *Staphylococcus aureus* that may be used clinically as a thrombolytic drug.

staphylolysin (stăf'ī-lōl'ī-sīn) [*"* + *lysis*, dissolution] A hemolysin produced by staphylococci.

staphyloma, staphyloma corneae (stăf'īl-ō'mă) [Gr.] Bulging of part of the uvea (choroid, iris, or ciliary body) into a thin, stretched area of sclera. **staphylo-matous, adj.**

anterior s. Globular enlargement of the anterior part of the eye. SYN: *keratoglobus*.

ciliary s. Staphyloma in the region of the ciliary body.

equatorial s. Staphyloma in the equatorial region of the eye.

intercalary s. Staphyloma in the region of the union of the sclera with the periphery of the iris.

partial s. Staphyloma that extends in one direction, displacing the pupil. The remainder of the cornea is clear.

posterior s. A bulging of the sclera backward.

total s. An opaque, protuberant scar found in place of the cornea. It is caused by a perforation of the cornea resulting in poor vision, increased tension, and rupture of thin scar. Treatment involves incision, excision, and ablation.

uveal s. The protrusion of any portion of the uvea through the sclera.

staphylopharyngorrhaphy (stăf'ī-lō-făr'in-gor'ă-fē) [*"* + *"* + *rhaphe*, seam, ridge] Any of several different operations on the soft palate and uvula.

staphyloplasty (stăf'ī-lō-plăs'tē) [*"* + *plassein*, to form] Plastic surgery of the uvula or soft palate.

staphylorrhaphy (stăf'īl-or'ă-fē) [*"* +

rhaphe, seam, ridge] Suture of a cleft palate.

staphylootomy (stăf'ī-lōt'ă-mē) [Gr. *staphylo-*, excision of the uvula] **1.** Amputation or incision of the uvula. **2.** Excision of a staphyloma.

staphylotoxin (stăf'ī-lō-tōk'sin) [Gr. *staphyle*, a bunch of grapes, + *toxikon*, poison] A toxin elaborated by one of the staphylococci, esp. *S. aureus*. Among some of the toxins produced are an enterotoxin, a cause of food poisoning, and exotoxins, including a hemotoxin that lyses red blood cells, a dermonecrotic toxin, toxic shock syndrome toxin-1, and leukocidins.

staple food, staple Any food that supplies a substantial part, at least 25% to 35%, of the caloric requirement and is regularly consumed by a certain population.

stapling (stăp'ling) In surgery, a means of fastening tissues to one another with C-shaped clips. Staples are made of either titanium or an absorbable polymeric material. Stapling can usually be performed more rapidly than suturing. SEE: *illu.*



STAPLED INCISION

gastric s. The surgical restriction of the outlet of the stomach (gastric cardia); used as a treatment for obesity in morbidly overweight patients. The procedure has many potential side effects, including esophagitis, vitamin deficiencies, and stenosis of the operative site.

star [AS. *steorra*] Aster.

lens s. A starlike structure developing in the lens of the eye as a result of unequal growth of lens fibers.

starburst (stăr'būrst) A visual disturbance in which brilliant flashes are seen around light sources. It is an occasional complication of refractive keratoplasty on the eye.

starch [AS. *stercan*] Plant polysaccharides composed of glucose that are digestible by humans. Staple grains often comprise 50% to 58% of caloric intake. Salivary and pancreatic amylases hydrolyze starches to dextrin and maltose. These in turn are hydrolyzed to glucose, which is absorbed in the bloodstream.

Glucose not immediately needed for energy is converted into glycogen and stored in the liver and muscle.

animal s. Glycogen.

corn s. Starch obtained from ordinary corn or maize (*Zea mays*). It is used as a dusting powder and an absorbent and is a constituent in many pastes and ointments. It is widely used in industry and as a food.

starch-iodine test A test for the presence of starch. When an iodine solution is applied to a substance or material that contains starch, a dark blue color appears.

stare (stār) [AS. *starian*] To gaze fixedly at anyone or anything.

star excursion balance test A test of dynamic stability used to assess function of the lower extremity. The patient stands on the test leg and reaches as far as possible in eight directions 45° apart (anterior, anteromedial, medial, posteromedial, posterior, posterolateral, lateral, and anterolateral) without using the reaching leg as a source of support. Scores are determined based on the distance reached in each direction.

Stargardt disease (stār'gärt) [Karl Bruno Stargardt, Ger. ophthalmologist, 1875–1927] An autosomal-recessive form of macular degeneration, marked by progressive central visual loss beginning in childhood or adolescence and worsening in middle age. SYN: *fundus flavimaculatus*.

Star of Life symbol The symbol designated by the Department of Transportation (DOT) to represent providers of emergency medical services (EMS). It is displayed on EMS vehicles and outside the emergency departments of hospitals. SEE: *illus.*



STAR OF LIFE

EMERGENCY MEDICAL CARE SYMBOL

Starling's law [Ernest Henry Starling, Brit. physiologist, 1866–1927] A law that states that the force of blood ejected by the heart is determined primarily by

the length of the fibers of its muscular wall (i.e., an increase in diastolic filling lengthens the fibers and increases the force of muscular contraction).

starter A pure culture of bacteria or other microorganism used to initiate a particular fermentation, as in the making of cheese.

star test pattern In radiography, a test to evaluate the condition of the focal spot of the x-ray tube.

startle (stār'tēl) [ME. *sterten*, stand up stiffly; move quickly] A response to a sudden stimulus marked by jerking body movements and some or all of the following: defensive posture, tremors, sweating, widened pupils, and a temporary increase in pulse and respiratory rates.

startle syndrome A rare, autosomal dominant neurological disorder in which affected persons have either brisk reflexes or sudden loss of consciousness with muscular rigidity when suddenly stimulated (e.g., by a loud noise or bright light). Treatment with benzodiazepines, such as clonazepam, is often beneficial.

starvation (stār-vā'shūn) [AS. *steorfan*, to die] **1.** The condition of being without food for a long period of time. When everything but air and water is withheld, the sequence of events is as follows: (1) hunger, beginning about 4 hr after the last meal, accompanied by gastric contraction and general restlessness, becoming more acute periodically, esp. at times when meals were customarily taken; (2) utilization of glycogen stored in the liver and muscles; (3) utilization of stored fat; (4) loss of weight; (5) spells of nausea and diminishing acuteness of the sensation of hunger; (6) destruction of body protein. The greatest loss of weight is in the fatty tissues, spleen, and liver. **2.** The condition in which the supply of a specific food is below minimum bodily requirements, such as protein starvation. SEE: *kwashiorkor*. **3.** The condition resulting from failure of the body to digest and absorb essential foodstuffs. SEE: *deficiency disease*; *diet*; *dietetics*.

stasimorphia, stasimorphy (stā'si-mor'fē-ā, -fē) [ʹ + *morphe*, form] A deformity caused by the failure to develop and grow.

stasis (stā'sis) [Gr. *stasis*, a standing] Stoppage of the normal flow of fluids, as of the blood or urine, or feces. SYN: *stagnation* (2).

diffusion s. Stasis with diffusion of lymph or serum.

intestinal s. Ileus.

venous s. Stasis of blood caused by venous congestion.

stat (stāt) [L., *statim*] Immediately.

-stat (stāt) A suffix used in pharmacology to designate an enzyme inhibitor.

state [L. *status*, condition] **1.** A condi-

- tion. **2.** A mode or condition of being. **3.** Status. Particular states are listed under the first word. SEE: e.g., *dream state*; *locked-in state*; *persistent vegetative state*.
- State Children's Health Insurance Program** ABBR: SCHIP. A state-based program providing health insurance for children whose parents have no private insurance and have incomes that exceed eligibility limits for Medicaid.
- state of matter** The condition in which matter exists under specified kinetic conditions (e.g. the pressure and temperature). All matter is in one or more states at any time: solid, liquid, gas, or plasma.
- statement, consensus** A comprehensive summary of the opinions of a panel of experts about a particular scientific, medical, nursing, or administrative issue. Its purpose is to provide guidance to health care professionals, esp. on controversial or poorly understood aspects of care.
- statement, position** The official attitude assumed by a professional organization regarding an important health care topic. Position statements reflect care standards proposed by the organization and are typically updated regularly.
- static** (stăt'ĭk) [Gr. *statikos*, causing to stand] At rest; in equilibrium; not in motion.
- static acoustic impedance** ABBR: Z_a . The opposition to the passage of sound through the external auditory canal.
- static balance** Static equilibrium.
- static equilibrium** The ability to maintain a steady position of the head and body in relation to gravity; it is integrated with the equilibrium of movement, or dynamic equilibrium. SYN: *static balance*.
- static reaction** One of the postural reflex responses important to standing and walking. Included are local static reactions acting on individual limbs, segmental static reactions linking the extremities together, and general static reactions to the position of the head in space.
- statics** (stăt'ĭks) The study of matter at rest and of the forces bringing about equilibrium. SEE: *dynamics*.
- statim** (stăt'ĭm) [L.] ABBR: stat. Immediately; at once.
- statins** (stă'tĭnz) Any of the drugs from the class known as 3-hydroxy-3-methylglutaryl coenzyme A (HMG CoA) reductase inhibitors. These drugs have powerful lipid-lowering properties. The names of drugs in this class all end in "-statin" (e.g., atorvastatin, pravastatin, lovastatin, and simvastatin). Drugs from this class reduce the risk of myocardial infarction and stroke.
- station** (stă'shŭn) [L. *statio*, standing] **1.** The manner of standing. **2.** A stop-
- ping place. **3.** In obstetrics, the relationship in centimeters between the presenting part and the level of the ischial spines. SEE: *forceps*.
- aid s.** A site in the army for collecting the wounded in battle.
- dressng s.** A temporary station for soldiers wounded during combat.
- rest s.** A temporary relief station for the sick on a military road or railway.
- stationary** (stă'shŭn-ĕr-ĕ) [L. *stationarius*, belonging to a station] Remaining in a fixed condition.
- statistical** (stă-tĭs'tĭ-kăl) Pert. to statistics.
- statistical reasoning** Reasoning from combinations of data to arrive at conclusions about what is true, false, likely, or improbable.
- statistical significance** Numerical meaningfulness; the likelihood that the results of a study are accurate, true, and valid.
- statistics** (stă-tĭs'tĭks) [LL. *statisticus*] The systematic collection, organization, analysis, and interpretation of numerical data pert. to any subject. SEE: *Bayes' theorem*; *statistical significance*.
- medical s.** Statistics pert. to medical sciences, esp. data pert. to human disease.
- morbidity s.** Statistics pert. to sickness.
- population s.** Vital statistics
- statoacoustic** (stăt''ō-ă-koo'stĭk) [Gr. *statos*, placed, + *akoustikos*, acoustic] Concerning balance and hearing.
- statoconia** (stăt''ō-kō'nĕ-ă) ['' + *konos*, dust] Otolith.
- statokinetic** (stăt''ō-kĭn-ĕt'ĭk) ['' + *kinetikos*, moving] Pert. to reactions of the body produced by movement.
- statolith** (stăt''ō-lĭth) ['' + *lithos*, stone] Otolith.
- statometer** (stă-tŏm'ĕt-ĕr) ['' + *metron*, a measure] An instrument for measuring the amount of abnormal protrusion of the eye.
- stature** (stăt'ĭr) [L. *statura*] The height of the body in a standing position.
- short s.** Body height at a specified age below the level obtained at that age by 70% of the population. A number of diseases, including hormonal, nutritional, and intrauterine growth retardation, may cause this condition. It is important to determine the cause and initiate appropriate therapy as soon as possible.
- tall s.** Unusually great height, typically considered to be greater than 200 cm in men and 180 cm in women. This condition is usually familial and may be prevented with estrogens or testosterone, depending on gender of patient.
- status** (stă'tŭs) *pl.* **statuses** [L.] A state or condition.
- s. asthmaticus** Persistent and intractable asthma.

s. dysraphicus A condition resulting from imperfect closure of the neural tube of the embryo.

s. epilepticus Continuous seizure activity without a pause, i.e., without an intervening period of normal brain function. Status can include two back-to-back seizures without a lucid interval or any seizure lasting more than 5 to 10 min.

estrogen receptor s. The presence or absence of a receptor to the hormone estrogen on breast cancer cells. Tumors that possess receptors either to estrogen alone or to both estrogen and progesterone are more responsive to estrogen-blocking agents such as tamoxifen than are tumors that lack these receptors.

mental s. The functional state of the mind as judged by the individual's behavior, appearance, responsiveness to stimuli of all kinds, speech, memory, and judgment.

s. migrainosus Continuous or daily unilateral, throbbing, and disabling headaches that do not improve with standard therapies for migraine.

s. panicus A panic attack that does not subside, but persists for many hours, days, or weeks without remission.

performance s. A measure of the overall health and functional capability of a patient.

progesterone receptor s. The presence or absence of receptors to the steroid hormone progesterone on breast cancer cells. Tumors that possess receptors to estrogen, to progesterone, or to both are more responsive to hormone-blocking agents, such as tamoxifen, than are tumors that lack these receptors.

s. verrucosus The defective development of the cerebral gyri with many small gyri. This gives a warty appearance to the surface of the brain.

status syndrome The name for the observation that the health of individuals and communities improves with increased socioeconomic status. Health and life expectancy improve gradually and consistently with increases in social position. The poorest, least educated people in Western societies have the worst health (in aggregate). Consistently better health is found with graded increases in social class.

statute Any law enacted by a state legislature.

statute of repose Legal protection from prosecution or damages that result from the failure of a project completed in the distant past. A statute of repose protects participants in the project (for example, a heart valve manufacturer for its old, currently obsolete heart valves) for a specified number of years after the

valve is no longer made, sold, or used in patient care.

Repose statutes differ from statutes of limitation. A statute of limitations provides protection to the valve manufacturer if an injured patient fails to file a claim of damages some number of months after being injured by the operation to implant it. The statute of repose provides the valve maker with an independent protection that states, in essence, that once a sufficient time has passed, the manufacturer has no ongoing relationship with its old products.

statutes of limitations Federal and state laws that set maximum time limits in which lawsuits can be brought and actions, claims, or rights can be enforced. No legal action can be brought outside the time allowed by law even if the person or entity has a claim or cause of action. In medical negligence claims, the statute usually is in effect from the time the wrong occurred or from the time it was or should have been discovered. Time limitations vary from state to state.

stauroplegia (staw'rō-plē'jē-ā) [*"* + *plege*, stroke] Alternate hemiplegia.

stay (stā) [ME.] A postponement of an administrative or a judicial ruling.

stay-time restriction The maximum amount of time that a person should spend in the presence of a radioactive object or radioactive patient.

S.T.D. 1. *sexually transmitted disease.*
2. *skin test dose.*

steady state A dynamic equilibrium in which construction and destruction are balanced. In physiology, the condition in which energy inputs equal expended energy (e.g., in which nutrition equals metabolism).

steal (stēl) The deviation of blood flow from its normal course or rate of flow.

hand ischemic s. Deprivation of blood flow to the radial artery, after an arteriovenous access (i.e., for hemodialysis) has been surgically placed in a patient's arm. If blood flow to the hand is not restored, the limb may become cold, painful, pale, or gangrenous.

intracerebral s. The shunting of blood from ischemic to well-supplied regions of the brain, producing overperfusion of the unaffected tissue and underperfusion of the ischemic tissue.

subclavian s. SEE: *subclavian steal syndrome.*

steam (stēm) [AS. *steam*, vapor] 1. The invisible vapor into which water is converted at the boiling point. 2. The mist formed by condensation of water vapor. 3. Any vaporous exhalation.

steam tent An obsolete device formerly used to encourage the inhalation of vapors (e.g., in respiratory diseases such as croup or cystic fibrosis).

steapsin (stē-āp'sin) [Gr. *stear*, fat, + *pepsis*, digestion] Pancreatic lipase.

stearate (stē'ā-rāt) An ester or salt of stearic acid.

stearic acid (stē-ār'ik) [Gr. *stear*, fat] A monobasic fatty acid, $C_{18}H_{36}O_2$, occurring naturally in plants and animals. It is used in the manufacture of soap and pharmaceutical products such as glycerin suppositories.

steariform (stē-ār'i-form) [" + *forma*, shape] Resembling fat.

stearin (stē'ā-rin) [Gr. *stear*, fat] A white crystalline solid in animal and vegetable fats; $C_3H_5(CH_2)_6COOH$; any of the esters of glycerol and stearic acid, specifically glyceryl tristearate. One of the commonest fats in the body, esp. the solid ones. It breaks down into stearic acid and glycerol.

stearopten(e) (stē'ā-rōp'tēn) [" + *ptenos*, volatile] The more solid portion of a volatile oil as distinguished from the more fluid portion or oleoptene. Menthol and thymol are examples.

steatitis (stē'ā-tī'tis) [" + *iitis*, inflammation] Inflammation of adipose tissue.

steato- [Gr. *steatos*, fat] Combining form meaning fat. SEE: *adipo-*; *lipo-*.

steatocystoma multiplex (stē'ā-tō-sīs-tō'mā) A skin disorder marked by the development of many sebaceous cysts.

steatogenous (stē'ā-tōj'ēn-ūs) [Gr. *steatos*, fat, + *gennan*, to produce] 1. Causing fatty degeneration. 2. Producing any sebaceous gland disease.

steatolysis (stē'ā-tōl'i-sis) [" + *lysis*, dissolution] 1. The process by which fats are first emulsified and then hydrolyzed to fatty acids and glycerin preparatory to absorption. 2. The decomposition of fat. SYN: *lipolysis*.

steatolytic (stē'ā-tō-lit'ik) Concerning steatolysis.

steatoma (stē'ā-tō'mā) [" + *oma*, tumor] A fatty tumor. SEE: *epidermoid cyst*; *lipoma*.

steatomatous (stē'ā-tō'mā-tūs) The presence of multiple sebaceous cysts.

steatonecrosis (stē'ā-tō-nē-krō'sis) [" + *nekros*, corpse, + *osis*, condition] Necrosis of fatty tissue.

steatopathy (stē-ā-tōp'ā-thē) [" + *pathos*, disease, suffering] Disease of the sebaceous glands of the skin.

steatopygia (stē'ā-tō-pij'ē-ā) [" + *pyge*, buttock] Abnormal accumulation of fat on the buttocks, occurring more frequently in women than in men.

steatorrhea (stē'ā-tō-rē'ā) [Gr. *steatos*, fat, + *rhoia*, flow] 1. Increased secretion of fat from the sebaceous glands of the skin. SYN: *seborrhea*. 2. Fatty stools, as seen in some malabsorption syndromes. Stains, such as Sudan stain, can be used to demonstrate fat in stool. Precise measurements of the quantity of fat in stools can be made with a 72-hr

stool collection. During the collection the patient must eat at least 100 g of dietary fat each day. The excretion of more than 7 g/day of fat is abnormal, that is, diagnostic of fat malabsorption. SYN: *fatty stool*.

s. simplex Excessive secretion of the sebaceous glands of the face.

steatosis (stē'ā-tō'sis) [" + *osis*, condition] 1. Fatty degeneration. 2. Disease of the sebaceous glands.

steerable Capable of being maneuvered, driven, or positioned into a specific anatomical location. Said of medical devices such as those advanced into the body by catheters.

stegnosis (stēg-nō'sis) [Gr. *stegenosis*, obstruction] 1. Checking of a secretion or discharge. 2. Stenosis. 3. Constipation. **stegnotic**, *adj.*

stegnotic (stēg-nōt'ik) Bringing about stegnosis. SYN: *astringent*.

Stegomyia (stēg'ō-mī'ē-ā) A subgenus of mosquito of the genus *Aedes*, family Culicidae, capable of transmitting many diseases to humans, including dengue, yellow fever, filariasis, and others.

Steinert's disease (stīn'ērts) [Hans Steinert, Ger. physician, b. 1875] A dominantly inherited disease marked by muscular wasting, decreased muscular tone, and cataracts, among other findings. SYN: *myotonia dystrophica*.

Stein-Leventhal syndrome (stīn-lēv'ēnthāl) [Irving F. Stein, Sr., U.S. gynecologist, b. 1887; Michael L. Leventhal, U.S. obstetrician and gynecologist, 1901–1971] Chronic anovulation in the setting of obesity, hyperinsulinemia, type 2 diabetes mellitus, lipid abnormalities, hirsutism, infertility, and ovarian cysts. SYN: *polycystic ovary syndrome*.

Steinmann's extension (stīn'mānz) [Fritz Steinmann, Swiss surgeon, 1872–1932] Traction applied to a limb by applying weight to a pin placed through the bone at right angles to the direction of pull of the traction force.

Steinmann pin A metal rod used for internal fixation of the adjacent sections of a fractured bone.

steinstrasse Tiny fragments of stone that remain in the ureters after lithotripsy, causing obstruction to the flow of urine, persistent pain, or bleeding.

stella (stēl'ā) [L.] Star.

s. lentis hyaloidea Posterior pole of the crystalline lens of the eye.

s. lentis iridica Anterior pole of the crystalline lens of the eye.

stellate (stēl'āt) [L. *stellatus*] Star-shaped; arranged with parts radiating from a center.

stellectomy (stēl-lēk'tō-mē) [" + *ektome*, excision] The surgical removal of the stellate ganglion.

Stellwag's sign (stēl'vāgs) [Carl Stellwag von Carion, Austrian oculist, 1823–

1904] Widening of the palpebral aperture with absence or lessened frequency of winking, seen in Graves' disease.

stem [AS. *stemma*, tree trunk] **1.** Any stalklike structure. **2.** To derive from or originate in.

stem cell factor ABBR: SCF. A cytokine that influences the development of sperm and egg cells, the production of melanin, and mast cell development. It is a glycoprotein.

steno- [Gr. *stenos*, narrow] Combining form meaning *narrow* or *short*.

stenobregmatic (stĕn"ō-brĕg-măt'ĭk) [" + *bregma*, front of head] A term applied to a skull with narrowing of the upper and frontal portions.

stenocephaly (stĕn"ō-sĕf'ă-lĕ) [" + *kephale*, head] Narrowness of the cranium in one or more diameters.

steno-compressor (stĕn"ō-kōm-prĕs'or) [" + L. *compressor*, that which presses together] An instrument for compressing Stensen's ducts to stop the flow of saliva.

steno-pa-ic, steno-pe-ic (stĕn-ŏ-pă'ĭk, -pĕ'ĭk) [Gr. *stenos*, narrow, + *ope*, opening] Provided with a narrow opening or slit, esp. denoting optical devices to protect against snow blindness.

stenosal (stĕ-nŏ'săl) [Gr. *stenos*, narrow] Stenotic.

stenosis (stĕ-nŏ'sĭs) [Gr., act of narrowing] The constriction or narrowing of a passage or orifice. **stenosed, stenotic, adj.**

ETIOLOGY: This may result from embryonic maldevelopment, hypertrophy and thickening of a sphincter muscle, inflammatory disorders, or excessive development of fibrous tissue. It may involve almost any tube or duct.

aortic s. An impairment of blood flow from the left ventricle to the aorta due to aortic valve disease or obstructions just above or below the valve. Stenosis may be congenital or secondary to diseases of adolescence or adulthood (e.g., rheumatic fever or fibrocalcific degeneration of the valve). It is the most common cardiac valve dysfunction in the U.S. SYN: *aortostenosis*. SEE: *Nursing Diagnoses Appendix*.

SYMPTOMS: Many patients with mild or moderate aortic stenosis (e.g., with a valve area that is more than 1 cm² or a valve gradient that is less than 50 mm Hg) have no symptoms and are unaware of their condition. A heart murmur is usually heard on physical examination of the patient. This murmur is best heard at the right second intercostal space during systole. Palpation of the arteries in severe aortic stenosis may reveal a delayed and weakened pulse (e.g., at the carotids). The heart's apical impulse may be laterally and inferiorly displaced as a result of left ventricular hypertrophy. Alarming symp-

toms include anginal chest pain, syncope, and dyspnea on exertion. When these occur, surgery to repair or replace the diseased valve are necessary.

PHYSICAL FINDINGS: Transthoracic echocardiography (TTE) diagnoses aortic stenosis and helps to evaluate its severity, determine left ventricular size and function, and detect other valvular disease.

TREATMENT: If the aortic valve area is significantly narrowed (i.e., < 0.8 cm²) or the patient has experienced symptoms of heart failure or syncope, percutaneous balloon aortic valvuloplasty or aortic valve replacement may be necessary.

PATIENT CARE: A history of related cardiac disorders is obtained. Cardiopulmonary function is assessed regularly by monitoring vital signs and weight, intake, and output for signs of fluid overload. The patient is monitored for chest pain, which may indicate cardiac ischemia, and the electrocardiogram is evaluated for ischemic changes. Activity tolerance and fatigue are assessed.

After cardiac catheterization, the insertion site is checked according to protocol (often every 15 min for 6 hr) for signs of bleeding; the patient is assessed for chest pain, and vital signs, heart rhythm, and peripheral pulses distal to the insertion site are monitored. Problems are reported to the cardiologist.

Desired outcomes for all aortic valve surgeries include adequate cardiopulmonary tissue perfusion and cardiac output, reduced fatigue with exertion, absence of fluid volume excess, and ability to manage the treatment regimen. Patients with aortic stenosis (with or without surgical repair) require prophylactic antibiotics before invasive procedures (including dental extractions, cleanings) because of the risk they pose for bacteremia and infective endocarditis.

catrictorial s. Stenosis resulting from any contracted scar.

coronary artery s. A physical obstruction to the flow of blood through the epicardial arteries, usually due to atherosclerotic plaque.

infantile hypertrophic pyloric s. Pyloric stenosis.

lumbar spinal s. A narrowing of the spinal canal caused by degenerative or traumatic changes at the level of the lumbar vertebrae. This condition causes back pain, often associated with pain that radiates into the legs, esp. when the patient is standing. Sitting often relieves the pain. The diagnosis is performed by spinal imaging (e.g., computed tomography or magnetic resonance imaging scanning). Treat-

ments include physical therapy, braces, analgesic agents, and spinal surgery.

mitral s. SEE: *mitral stenosis*; *Nursing Diagnoses Appendix*.

pulmonary s. Narrowing of the opening into the pulmonary artery from the right cardiac ventricle.

renal artery s. An obstruction in one or both arteries that supply the kidneys; a relatively uncommon cause of hypertension. In young women the cause is usually fibromuscular dysplasia of one or both arteries. In older people the cause is usually atherosclerosis.

TREATMENT: Patients may be treated medically with standard anti-hypertensive drugs, or, in some cases, with renal artery angioplasty or bypass surgery. SEE: *illius*.

subaortic s. A congenital constriction of the aortic tract below the aortic valves. SEE: *hypertrophic cardiomyopathy*.

tricuspid s. Narrowing of the opening to the tricuspid valve.

stenostomia (stĕn'ō-stō'mĕ-ă) [Gr. *stenos*, narrow, + *stoma*, mouth] Narrowing of the mouth.

steno thorax (stĕn'ō-thō'răks) [" + *thorax*, chest] An unusually narrow thorax.

Stenotrophomonas maltophilia (stĕn'ō-trō-fō-mōn'as) A gram-negative, motile, strictly anaerobic bacillus of the family Pseudomonadaceae. It may cause pneumonia, meningitis, endocarditis, conjunctivitis, wound infections, and infections related to the use of central venous catheters. Trimethoprim-sulfamethoxazole is used to treat infections with this organism. This species was formerly called *Pseudomonas maltophilia* and *Xanthomonas maltophilia*.

Stensen's duct (stĕn'sĕns) [Niels Stensen, Danish anatomist, 1638–1686] The duct leading from the parotid gland to the oral cavity. SYN: *parotid duct*.

stent (stĕnt) [Charles R. Stent, Brit. dentist, 1845–1901] 1. Originally a compound used in making dental molds. 2. Any material or device used to hold tissue in place, to maintain open blood vessels, or to provide a support for a graft or anastomosis while healing is taking place.

airway s. A tube or catheter used as a scaffold to keep an airway open. It is used, e.g., to maintain the patency of a trachea or bronchus that has collapsed as a result of compression by neighboring tissues.



intraluminal coronary artery s. A stent made of an inert material, usually metallic, with a self-expanding mesh introduced into the coronary artery. It is used to prevent lumen closure (restenosis) following bypass surgery and to treat acute vessel closure after angioplasty. SEE: *illius*.

urologic s. A biologically compatible tube inserted into the ureter or urethra to relieve or prevent urinary tract obstruction. Stents are commonly placed in the urinary tract after endoureterotomy and endopyelotomy.

step 1. To move one foot in relation to the other, as in walking. **2.** A series of rests for the foot, used for ascending or descending. **3.** A single movement or act within a sequence of behaviors necessary for completing a task.

rate-determining s. The chemical reaction in a series of sequential reactions that takes the longest to occur.

Rönne's s. A steplike defect in the visual field.

step-down unit A unit to which stable patients are sent either after being cared for in intensive care units (ICUs) or instead of receiving care in ICUs.

Stephan's curve A mathematical model used to determine the impact of ingested foods on the pH of dental plaque and subsequent caries formation. Decalcification of teeth occurs when the pH in the oral cavity is less than 5.5.

DENTAL IMPLICATIONS: To reduce decalcification of tooth surfaces, patients should be encouraged to consume foods that do not result in a drop in plaque pH.

steradian (stĕ-ră'dĕ-ăn) The unit of measurement of solid angles. It encloses an area on the surface of a sphere equal to the square of the radius of the sphere.

sterc- [L. *stercus*, dung] Combining form meaning *feces*. SEE: *scato-*.

stercobilin (stĕr'kō-bī'lĭn) [" + *bilis*, bile] A brown pigment derived from the bile, giving the characteristic color to feces. SEE: *urobilin*.

stercobilinogen (stĕr'kō-bī-lĭn'ō-jĕn) A colorless substance derived from urobilinogen. It is present in the feces and turns brown on oxidation.

stercolith, stercorolith (stĕr'kō-lĭth) [" + Gr. *lithos*, stone] A fecal stone.

stercoraceous (stĕr'kō-ră'shĭs) [L. *stercoraceus*] Having the nature of, pert. to, or containing feces.

stereo-, stere- Combining form meaning *solid*, *having three dimensions*, or *firmly established*.

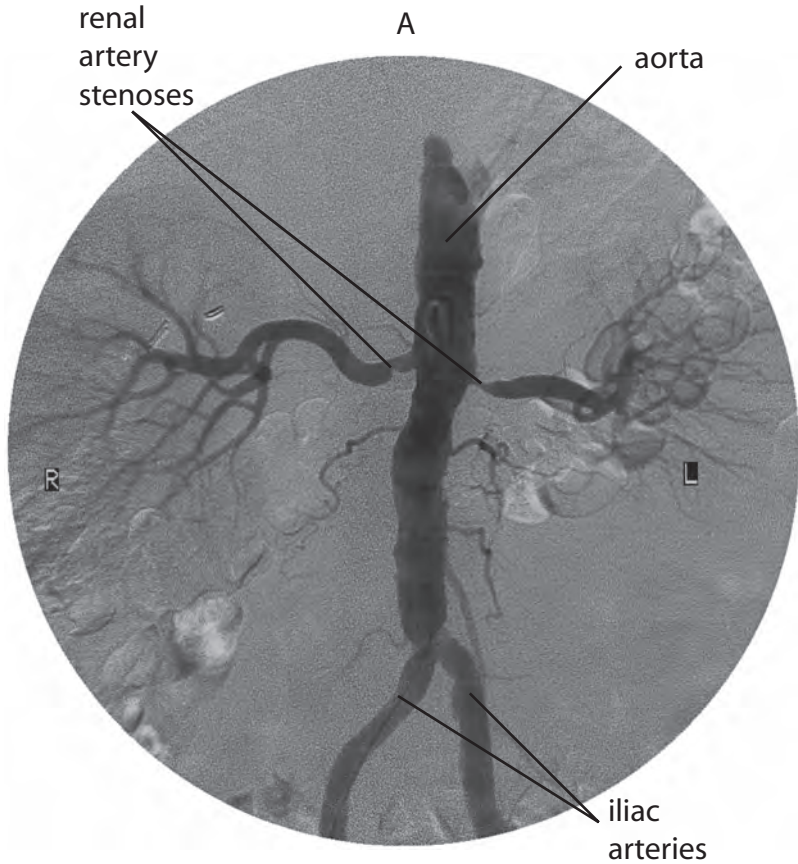
stereoacuity (stĕr'ĕ-ō-ă-kew'ĭt-ĕ) The accuracy and sharpness of images acquired with binocular depth perception.

stereoagnosis (stĕr'ĕ-ō-ăg-nō'sĭs) [Gr. *stereos*, solid, + *a-*, not, + *gnosis*, knowledge] Agnosia, tactile.

stereoanesthesia (stĕr'ĕ-ō-ăn'tĕs-thĕ'zĕ-ă) [" + *an-*, not, + *aisthesis*, sensation] The inability to recognize objects by feeling their form.

stereoarthrolysis (stĕr'ĕ-ō-ăr-thrōl'ĭ-sĭs) [" + *arthron*, joint, + *lysis*, dissolution] The surgical formation of a movable new joint in bony ankylosis.

stereoauscultation (stĕr'ĕ-ō-aws'kŭl-tă'



RENAL ARTERY STENOSIS

(A) Renal artery stenosis (before angioplasty); (B) Renal artery stenosis (after angioplasty)
(Courtesy of Arnold Klein, M.D., Northwest Permanente, P.C.)

shŭn) [ʹ + L. *auscultare*, listen to] Auscultation by use of a two-headed stethoscope. One tube of each instrument is inserted into an ear while the other is squeezed shut by the fingers.

stereocampimeter (stĕr'ĕ-ō-kām-pīm'ĕ-tĕr) [ʹ + L. *campus*, field, + Gr. *metron*, measure] A device for measuring the visual field of both eyes simultaneously.

stereochemistry (stĕr'ĕ-ō-kĕm'is-trĕ) That branch of chemistry dealing with atoms in their space relationship and the effect of such a relationship on the action and effects of the molecule. **stereochemical**, *adj.*

stereocilia (stĕr'ĕ-ō-sīl'ĕ-ă) *sing.*, **stereocilium** Microvilli on the free surfaces of cells lining the ductus epididymis and ductus deferens, and of the hair cells of the receptors of the inner ear.

stereoencephalotomy (stĕr'ĕ-ō-ĕn-sĕf'ă-

löt'ō-mĕ) [ʹ + *enkephalos*, brain, + *tome*, incision] Surgical incision by use of stereotaxis during brain surgery.

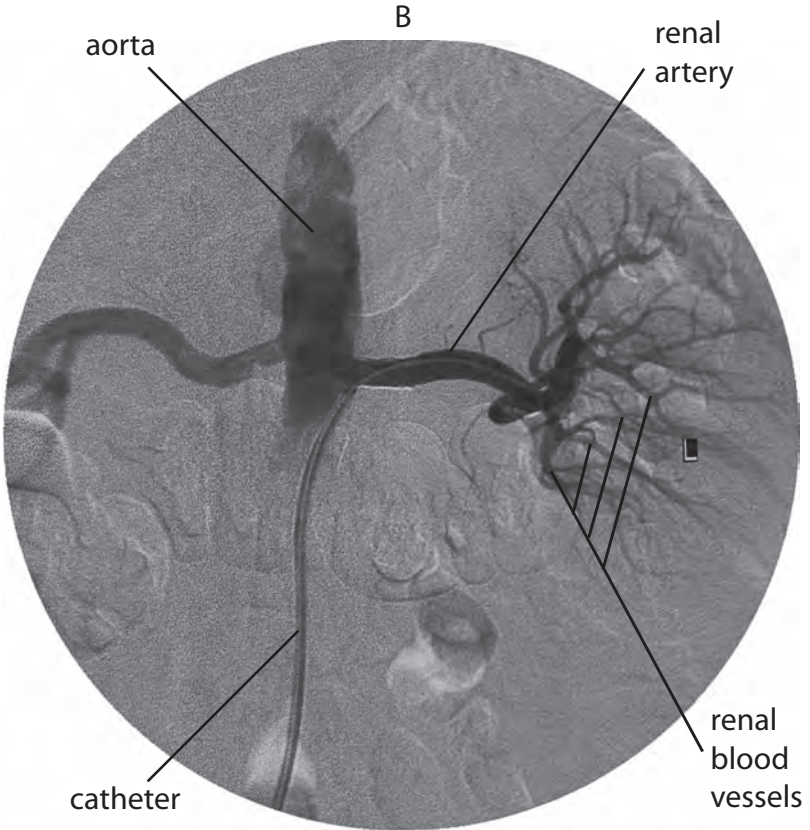
stereognosis (stĕr'ĕ-ōg-nō'sis) [ʹ + *gnosis*, knowledge] The ability to recognize the form of solid objects by touch.

stereogram (stĕr'ĕ-ō-grām) [ʹ + *gramma*, something written] Stereoscopic radiographs.

stereoisomerism (stĕr'ĕ-ō-ī-sō'mĕr-izm) A condition in which two or more substances may have the same empirical formula but mirror-image structural formulas.

stereology (stĕr'ĕ-ōl'ō-jĕ) [Gr. *stereos*, solid, + *logos*, word, reason] The study of three-dimensional aspects of objects.

stereometry (stĕr'ĕ-ōm'ĕ-trĕ) [ʹ + *metron*, a measure] The measurement of a solid body or the cubic contents of a hollow body.



stereo-ophthalmoscope (stēr'ē-ō-ōf-thāl'mō-skōp) [" + *ophthalmos*, eye, + *skopein*, to examine] An ophthalmoscope that is designed to permit the fundus to be seen simultaneously by both eyes of the examiner.

stereo-orthopter (stēr'ē-ō-or-thōp'tēr) [" + *orthos*, straight, + *opsis*, vision] A mirror-reflecting device for the treatment of strabismus.

stereophorometer (stēr'ē-ō-for-ōm'ē-tēr) [" + *phoros*, a bearer, + *metron*, measure] A prism-refracting device for use in correcting extraocular eye muscle imbalance.

stereophotography (stēr'ē-ō-fō-tōg'rā-fē) [" + *phos*, light, + *graphein*, to write] Photography that produces the effect of solidity or depth in the pictures.

stereophotomicrograph (stēr'ē-ō-fō'tō-mī'krō-grāf) [" + " + *mikros*, tiny, + *graphein*, to write] A photograph showing the solidity or depth of a microscopic subject.

stereopsis (stēr'ē-ōp'sis) [" + *opsis*, vision] Binocular depth perception.

stereoradiography (stēr'ē-ō-rā'dē-ōg'rā-fē) [" + L. *radius*, ray, + Gr. *graph-*

ein, to write] Radiography from two slightly different angles to simulate the distance between the viewer's eyes (usually 4 in.) so that a stereoscopic effect is produced when the radiographs are viewed through a stereoscope.

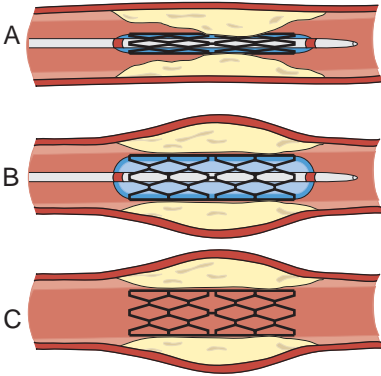
stereoscope (stēr'ē-ō-skōp) [" + *skopein*, to examine] An instrument that creates an impression of solidity or depth of objects seen by combining images of two pictures.

stereoscopic, stereoscopical (stēr'ē-ō-skōp'ik, stēr'ē-ō-skōp'ik-āl) Pert. to the stereoscope or its use.

stereospecific (stēr'ē-ō-spē-sif'ik) Specific for only one of the possible receptors on a cell.

stereotactic (stēr'ē-ō-tāk'tik) Having precise spatial coordinates; located precisely in three-dimensional space. Stereotactic techniques are used in brain surgery, breast biopsies, and other procedures in which precision is needed in identifying, cutting, or removing tissues.

stereotropism (stēr'ē-ōt'rō-pīzm) [" + *tropos*, a turning, + *-ismos*, condition] A response toward (positive stereotro-



INSERTION OF A CORONARY ARTERY STENT

(A) A balloon catheter with a collapsed stent is advanced to the location of a coronary artery lesion. (B) The balloon is inflated, which expands the stent and compresses the lesion to increase the artery opening. (C) The balloon is then deflated and removed, leaving the expanded stent in place to prevent the artery from closing.

pism) or away from (negative stereotropism) a solid object. SYN: *thigmotropism*.

stereotype 1. A simplified idea of a person or a concept, often one that is prejudicial to others or lacking in finesse. 2. A simple movement performed unconsciously.

stereotypic movement disorder Motor behavior, persisting for at least 4 weeks, that is repetitive, often seemingly driven and nonfunctional to the extent that it interferes with normal activities or results in self-inflicted bodily injury sufficient to require medical treatment. The disorder cannot be accounted for by a compulsion, a tic, or hair pulling and is not due to the effects of a substance or a general medical condition.

stereotypy (stĕr-ĕ-ō-tī'pē) [*n* + *typos*, type] The persistent repetition of words, posture, or movement without meaning.

steric (stĕ'rĭk) Concerning the spatial arrangement of atoms in a chemical compound.

sterilant (stĕr'ĭ-lānt) [L. *sterilis*, barren] Any agent used to render objects free of living or potentially infectious organisms.

sterile (stĕr'ĭl) [L. *sterilis*, barren] 1. Free from living microorganisms, i.e., of bacteria, fungi, protozoa, spores, viruses, and other living organisms. No agent, device, drug, or fluid should be placed inside the body in clinical medicine if it is not sterile. 2. Not fertile; un-

able to reproduce young. SYN: *barren*. SEE: *sterility*.

sterility (stĕr-ĭl'ĭ-tē) [L. *sterilitas*, barrenness] 1. Freedom from contamination or colonization by living microorganisms. 2. The inability of the female to become pregnant or for the male to impregnate a female.

When investigating sterility, both partners should be examined. A routine examination for the female includes a study of the vaginal secretions, a bimanual pelvic examination, visualization of the cervix, in some cases a test for patency of the fallopian tubes, and a record of basal body temperature. A history of pelvic disease in the female is of great importance. The male should have the seminal fluid examined for the number, motility, viability, and normality of the spermatozoa, and occasionally other tests (e.g., of testosterone levels).

TREATMENT: Treatment of sterility depends on the finding and correction of any or all causes of the condition. A high percentage of couples who have an infertility problem during the first year in which they are trying to have a child will, without treatment, produce offspring within 2 to 3 years. SEE: *embryo transfer*; *gamete intrafallopian transfer*; *fertilization, in vitro*.

absolute s. The inability to produce offspring as a result of anatomical or physiological factors that prevent production of functional germ cells, conception, or the normal development of a zygote.

female s. The inability of a female to conceive. This may result from a failure to produce or transport viable ova or to sustain a pregnancy due to a congenital absence or maldevelopment of the reproductive organs. Sterility also may be secondary to endocrine disorders, infections, trauma, neoplasms, inactivation of the ovaries by irradiation, or surgical excision of the ovaries, tubes, or uterus. SEE: *infertility*; *gonadal dysgenesis*.

male s. The inability of a male either to produce sperm or to produce viable sperm, thereby prohibiting fertilization of the ovum. This may result from congenital factors, such as cryptorchidism or maldevelopment of the testicular ducts or testis, or acquired factors, such as radiation to, or surgical removal of, the testes.

primary s. Sterility resulting from failure of the testis or ovary to produce functional germ cells.

relative s. Sterility due to causes other than a defect of the sex organs.

sterilization (stĕr'ĭl-ĭ-zā'shŭn) [L. *sterilis*, barren] 1. The process of completely removing or destroying all microorganisms from an object. 2. The process of rendering barren. This can be accomplished by the surgical removal of the testes or ovaries (castration) or inactivation by irradiation, or by tying off

or removing a portion of the reproductive ducts (ductus deferens or uterine tubes). SEE: *salpingectomy*; *vasectomy*.

cold s. Immersing heat-sensitive instruments into microbicidal fluids, such as glutaraldehyde, orthophthalaldehyde, or concentrated hydrogen peroxide to rid them of bacteria, fungi, mycobacteria, or viruses.

dry heat s. The sterilization of instruments in an oven in order to raise their surface temperature for a long enough time to kill any microorganisms.

flash s. Steam-thermal sterilization in which instruments which are difficult to obtain or replace are placed in superheated (270°F) steam for 3 to 10 min.



The Association of Operating Room Nurses cautions that this procedure should only be used when there is an urgent need for a particular operating instrument that otherwise cannot be met.

fractional s. Sterilization in which heating is done at intervals so that spores can develop into vegetative bacteria and be destroyed.

gas s. Exposure to gases such as formaldehyde or ethylene oxide that destroy microorganisms.



Because ethylene oxide is toxic if it is inhaled, tools sterilized in ETO must be aerated according to OSHA standards.

intermittent s. Fractional s.

involuntary s. Any procedure that renders a legally incompetent person permanently infertile. It is performed only under court order, and only when other less drastic means of preventing unwanted procreation have failed.

laparoscopic s. Sterilization by use of a laparoscope to gain access to the fallopian tubes so they can be banded, clipped, or electrocoagulated.

steam-thermal s. Sterilization by exposure of microorganisms at to flowing steam or pressurized steam. There are three types of steam-thermal sterilization: gravity methods, in which ambient air in the sterilization chamber is gradually displaced by steam; prevacuum, in which air in the chamber is mechanically removed; and flash sterilization (see above).

sterilize (stēr'ī-līz) [L. *sterilis*, barren] 1. To free from microorganisms. 2. To make incapable of reproduction.

sterilizer (stēr'ī-lī-zēr) An oven or appliance for sterilizing.

bead s. A device devised to remove bacteria from dental instruments, but found to be ineffective by the U.S. Food and Drug Administration (F.D.A.). It

consists of a container filled with millimeter-sized glass spheres heated to temperatures exceeding 217°C into which the instrument is placed, usually for 15 to 45 seconds.



The FDA recommends the use of other devices to sterilize dental and surgical equipment.

steam s. An autoclave that sterilizes by steam under pressure at temperatures above 100°C.

sternad (stēr'nād) [Gr. *sternon*, chest] Toward the sternum.

sternalgia (stēr-nāl'jē-ä) [Gr. *sternon*, chest, + *algos*, pain] Pain in the sternum. SYN: *sternodynia*.

Sternberg-Reed cell Reed-Sternberg cell.
sternebra (stēr'nē-brä) [" + L. *vertebra*, vertebra] Parts of the sternum during development of the fetus.

sternon (stēr'nēn) [Gr. *sternon*, chest] Pert. solely to the sternum and no other structures.

sterno- [Gr. *sternon*, chest] Combining form meaning *sternum*.

sternoclavicular (stēr'nō-klāv-īk'ū-lār) [" + L. *clavicula*, little key] Concerning the sternum and clavicle. SYN: *sternocleidal*.

sternocleidal (stēr'nō-klī'dāl) [" + *clavis*, key] Sternoclavicular.

sternocleidomastoid (stēr'nō-klī'dō-mās'toyd) [" + *clavis*, key, + *mastos*, breast, + *eidosis*, form, shape] One of two muscles arising from the sternum and inner part of the clavicle.

sternocostal (stēr'nō-kōs'tāl) [" + L. *costa*, rib] Rel. to sternum and ribs.

sternodynia (stēr'nō-dīn'ē-ä) [" + *odyne*, pain] Pain in the sternum. SYN: *sternalgia*.

sternohyoid (stēr'nō-hī'oyd) [" + *hyooides*, U-shaped] The muscle from the medial end of the clavicle and sternum to the hyoid bone.

sternoid (stēr'noyd) [" + *eidosis*, form, shape] Resembling the breastbone.

sternomastoid (stēr'nō-mās'toyd) [" + *mastos*, breast, + *eidosis*, form, shape] Pert. to the sternum and mastoid process of the temporal bone.

sternomastoid region The wide area on the lateral region of the neck covered by sternocleidomastoid muscle.

sternopericardial (stēr'nō-pēr'ī-kār'dē-äl) [" + *peri*, around, + *kardia*, heart] Concerning the sternum and pericardium.

sternoschisis (stēr-nōs'kī-sīs) [" + *schisis*, a splitting] A cleft or fissured sternum.

sternothyroid (stēr'nō-thī'royd) [" + *thyreos*, shield, + *eidosis*, form, shape] The muscle extending beneath the sternohyoid that depresses the thyroid cartilage.

sternotomy (stĕr-nŏt'ō-mē) [ʼ + *tome*, incision] The operation of cutting through the sternum. **SEE: illus.**

sternotracheal (stĕr'nō-trā'kē-āl) [ʼ + *tracheia*, trachea] Concerning the sternum and trachea.

sternotrypsis (stĕr'nō-trī-pēs'is) [ʼ + *trypsis*, a boring] Surgical perforation of the sternum.

sternovertebral (stĕr'nō-vĕr'tĕ-brāl) [ʼ + *L. vertebra*, vertebra] Concerning the sternum and vertebrae.

sternum (stĕr'nūm) [*L.*] The narrow, flat bone in the median line of the thorax in front. It consists of three portions: the manubrium, the body or gladiolus, and the ensiform or xiphoid process. **SEE: illus.**

cleft s. A congenital fissure of the sternum.

sternutation (stĕr-nū-tā'shŭn) The act of sneezing.

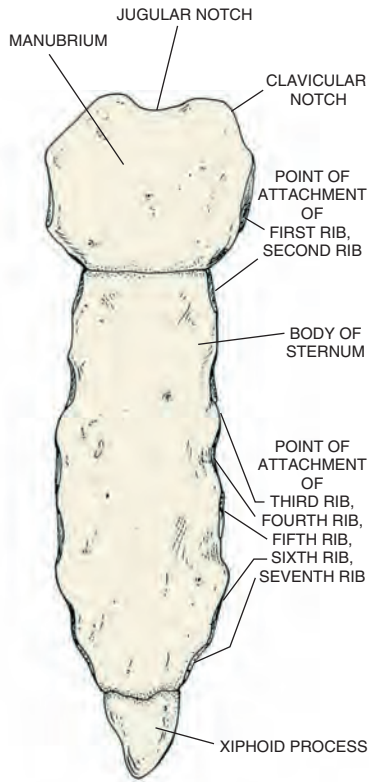
sternutator (stĕr'nū-tā'tor) [*L. sternutatorius*, causing sneezing] An agent, such as a war gas, that induces sneezing. **sternutatory, adj.**

steroid (stĕr'oyd) **1.** An organic compound containing in its chemical nucleus the perhydrocyclopentanophenanthrene ring. **SEE: steroid hormone for illus.; perhydrocyclopentanophenanthrene. 2.** A term applied to any one of a large group of substances chemically related to sterols, including cholesterol, D vitamins, bile acids, certain hormones, saponins, glucosides of digitalis, and certain carcinogenic substances.

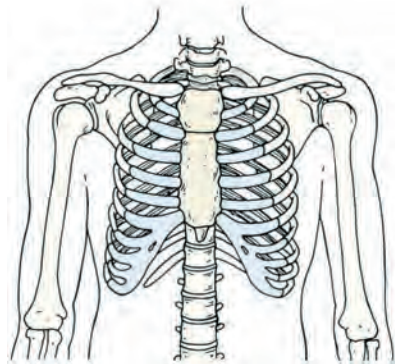
steroid diabetes Hyperglycemia that results from the use of exogenously administered corticosteroids, such as prednisone, methylprednisolone, dexamethasone, or other therapeutic agents.

steroid hormone One of the sex hormones and hormones of the adrenal cortex. **SEE: illus.**

steroid hormone therapy Treatment



ANTERIOR VIEW



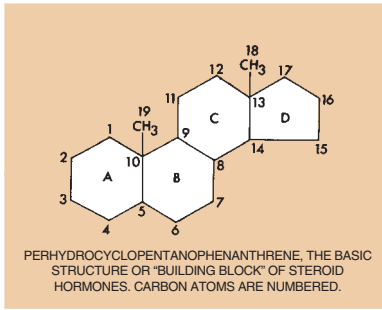
STERNUM



STERNOTOMY

Sternotomy scar that is nearly healed

with intravenous, oral, inhaled, or topical adrenal hormones (or their synthetic derivatives), usually to relieve inflammatory diseases (such as asthma or chronic obstructive lung disease; arthritis or colitis; or dermatitis or eczema) or as part of a combined modality treat-



STEROID HORMONE NUCLEUS

ment for some malignancies. Common side effects of prolonged, high-dose steroid hormone therapy include alterations in the sleep-wake cycle, fluid and sodium retention, muscle weakness, thinning of the skin, cataract formation, diabetes mellitus, osteoporosis, or immune suppression. Few if any of these effects are likely to occur when steroids are given for 1- or 2-week courses of therapy.

steroidogenesis (stē-roy"ō-dō-jěn"ē-sīs) Production of steroids.

steroid withdrawal syndrome The appearance of symptoms of adrenal insufficiency in persons who discontinue the use of corticosteroids after having been treated with them for a prolonged period. In those patients, adrenal function has been suppressed by exogenous hormone and the patient's adrenal glands do not provide an appropriate response when the patient has a serious infection, surgery, or an accident. This failure to respond to stress may be present for as long as a year after discontinuation of corticosteroid therapy. The syndrome may be prevented by gradual rather than abrupt withdrawal of corticosteroid therapy.

sterol (stēr"ōl, stēr"ōl) [Gr. *stereos*, solid, + L. *oleum*, oil] One of a group of substances (such as cholesterol) with a cyclic nucleus and alcohol moiety. They are found free or esterified with fatty acids (cholesterides). They are found in animals (zoosterols) or in plants (phytosterols). They are generally colorless, crystalline compounds, nonsaponifiable and soluble in certain organic solvents.

stertor (stēr"tor) [NL. *stertor*, to snore] Snoring or laborious breathing owing to obstruction of air passages in the head, seen in certain diseases such as apoplexy.

stertorous (stēr"tō-rūs) Pert. to laborious breathing provoking a snoring sound.

stetho- [Gr. *stethos*, chest] Combining form meaning *chest*.

stethogram (stēth"ō-grām) [r +

gramma, something written] A record of heart sounds. The record may be stored for later comparison with subsequent heart sounds. SYN: *phonocardiogram*.

stethomyitis, stethomyositis (stēth"ō-mī-tī's, -mī"ō-sī'tīs) [r + *mys*, muscle, + *itis*, inflammation] Inflammation of the muscles of the chest.

stethoparalysis (stēth"ō-pā-rāl'ī-sīs) [r + *paralyein*, to disable] Paralysis of the muscles of the chest.

stethoscope (stēth"ō-skōp) [r + *sko-pein*, to examine] An instrument used to transmit to the examiner's ears sounds produced in the body. It ordinarily consists of rubber tubing in a Y shape and a bell or diaphragm.

binaural s. A stethoscope designed for use with both ears.

compound s. A stethoscope in which more than one set is attached to the same fork and chest piece.

double s. A stethoscope with two earpieces and tubes.

electronic s. A stethoscope equipped to amplify electronically sounds from the body.

single s. A rigid or flexible stethoscope designed for one ear only.

stethospasm (stēth"ō-spāzm) [r + *spasmos*, convulsion] A spasm of the pectoral or chest muscles.

Stevens-Johnson syndrome (stē'vēnz-jōn'sōn) [Albert M. Stevens, 1884–1945, Frank C. Johnson, 1894–1934, U.S. pediatricians] A systemic skin disease, probably identical to toxic epidermal necrolysis, that produces fevers and lesions of the oral, conjunctival, and vaginal mucous membranes. It is marked by a cutaneous rash that is often widespread and severe. Skin loss may lead to dehydration, infection, or death. SEE: *illius*; *erythema multiforme*.

Stevia (stē'vē-ā) [NL] A genus of shrubs native to South America. A noncaloric sugar substitute is made from plants of this genus.

STH *somatotropic hormone*. SEE: under *hormone*.

sthenia (sthē'nē-ā) [Gr. *sthenos*, strength] Normal or unusual strength. Opposite of *asthenia*. **sthenic, adj.**

stibialism (stīb'ē-āl-izm) [L. *stibium*, antimony, + Gr. *-ismos*, condition] Antimony poisoning.

stibiated (stīb'ē-āt'ēd) [L. *stibium*, antimony] Containing antimony.

stibium (stīb'ē-ūm) [L.] Antimony.

stibophen (stīb'ō-fēn) A trivalent tin compound, used in treating schistosomiasis, leishmaniasis, and granuloma inguinale.

stiff [AS. *stif*] Rigid, firm, inflexible.

stiff baby syndrome An inherited disorder marked by muscular rigidity that appears in the first days of life. It may



STEVENS-JOHNSON SYNDROME

be associated with an excessive startle response, apnea, gait disturbance, or reurgitation of foods.

stiff man syndrome, stiff person syndrome A rare central nervous system disease characterized by progressive muscular rigidity and spasms. The diagnosis is strongly supported by continuous motor unit activity during electromyography and by the presence of autoantibodies (antiglutamic acid antibody, for example). Treatments include benzodiazepines, for comfort, and immunological therapies such as high-dose corticosteroids, intravenous immunoglobulins, or plasma exchange.

stiff neck Rigidity of neck resulting from spasm of neck muscles. It is a symptom of many disorders. SYN: *torticollis*; *wry-neck*.

stigma (stĭg'mă) *pl.* **stigmata, stigmata** [Gr., mark] **1.** A mark or spot on the skin; lesions or sores of the hands and feet that resemble crucifixion wounds. **2.** The spot on the ovarian surface where rupture of a graafian follicle occurs. **3.** A social condition marked by attitudinal devaluing or demeaning of persons who, because of disfigurement or disability, are not viewed as being capable of fulfilling valued social roles.

stigmata (stĭg'mă-tă) Cutaneous evidence of systemic illness.

stigmatic (stĭg-măt'ĭk) [Gr. *stigma*, mark] Pert. to or marked with a stigma.

stigmatism (stĭg'mă-tĭsm) **1.** A condition marked by possession of stigmata. **2.** A condition in which light rays are accurately focused on the retina. SEE: *astigmatism*.

stilbestrol (stĭl-bēs'trōl) Diethylstilbestrol.

stillbirth (stĭl'bĭrth) [AS. *stille*, quiet, + Old Norse *burdhr*, birth] The birth of a dead fetus. **stillborn**, *adj.*

Still's disease (stĭlz) [Sir George F. Still, Brit. physician, 1868–1941] Juvenile rheumatoid arthritis.

Still's murmur A benign, functional mid-systolic murmur heard in children. The maximum sound is heard over the left lower sternal border.

-stim (stĭm) A suffix used in pharmacology to designate a hematopoietic colony-stimulating factor.

stimulant (stĭm'ū-lănt) [L. *stimulans*, goading] Any agent temporarily increasing functional activity. Stimulants may be classified according to the organ upon which they act, as follows: cardiac, bronchial, gastric, cerebral, intestinal, nervous, motor, vasomotor, respiratory, and secretory. Commonly used stimulants include caffeine, low doses of ethanol, methamphetamines, and cocaine.

stimulate (stĭm'ū-lăt) [L. *stimulare*, to goad on] **1.** To increase activity of an organ or structure. **2.** To apply a stimulus.

stimulation (stĭm'ū-lă'shŭn) **1.** Irritating or invigorating action of agents on muscles, nerves, or sensory end organs by which excitation or activity in a part is evoked. **2.** A stimulus.

breast s. In pregnancy, nipple rolling or the application of heat to the breasts to elicit release of endogenous oxytocin and to generate uterine contractions. The procedure also has been used to evaluate placental sufficiency in the third trimester and to increase contractions in patients with ruptured membranes and when contractions are absent, rare, irregular, or of poor quality. SEE: *oxytocin challenge test*.

deep brain s. The application of pulsed electrical energy via electrodes to the pars interna of the globus pallidus or the subthalamic nucleus. It is used to treat movement disorders, such as Parkinson's disease.

double simultaneous s. In the neurological examination, a test of unilateral neglect. A light touch, audible signal, or visual cue is provided to both sides of the patient at the same time (e.g., both arms, both ears, both the left and right visual fields). Failure to detect one of the stimuli suggests a lesion in the opposite side of the cerebral cortex. Double simultaneous stimulation can also be performed on one side of the body, for instance, by tapping the left arm and left side of the face at the same time. If the distal stimulus is undetected even after several trials, the patient may have an organic brain syndrome.

fetal scalp s. An assessment of fetal well-being in which the examiner reaches into the vagina and rubs the scalp of the fetus. The fetal heart rate is

monitored for accelerations. If the fetal heart rate does not accelerate appropriately, further testing, such as scalp blood sampling, may be needed.

fetal (vibratory) acoustic s. ABBR: FAST. A noninvasive means of assessing fetal reactivity during labor. It typically is used as an adjunct to nonstress testing. The examiner applies an electronic source of low-frequency sound (such as an electrolarynx) firmly to the mother's abdomen over the fetal head. A reactive test is characterized by fetal heart rate accelerations or other measurable forms of increased fetal activity.

neural s. The activation or energizing of a nerve, through an external source.

transcranial magnetic s. ABBR: TMS. The application of pulses from a magnetic coil to induce electrical currents in specific parts of the brain. This treatment has been used in experimental neuroscience to study the activity of different areas of the brain, and in psychiatry as a noninvasive alternative to electroconvulsive therapy.

stimulator (stīm'ū-lā'tor) Something that stimulates.

long-acting thyroid s. SEE: *long-acting thyroid stimulator*.

stimulus (stīm'ū-lūs) *pl.* **stimuli** [L., a goad] **1.** A change of environment of sufficient intensity to evoke a response in an organism. **2.** An excitant or irritant.

adequate s. **1.** Any stimulus capable of evoking a response, i.e., an environmental change possessing a certain intensity, acting for a certain length of time, and occurring at a certain rate. **2.** A stimulus capable of initiating a nerve impulse in a specific type of receptor.

chemical s. A chemical (liquid, gaseous, or solid) that is capable of evoking a response.

conditioned s. A stimulus that gives rise to a conditioned response. SEE: *reflex, conditioned*.

electric s. A stimulus resulting from initiation of or cessation of a flow of electrons as from a battery, induction coil, or generator.

homologous s. A stimulus that acts only on specific sensory end organs.

iatrotropic s. Any stimulus or event that makes a person seek or receive medical attention, such as a symptom, a physical finding, or the need for a routine or required health screening examination.

liminal s. Threshold s.

mechanical s. A stimulus produced by a physical change such as contact with objects or changes in pressure.

minimal s. Threshold s.

nociceptive s. A painful and usually injurious stimulus.

subliminal s. A stimulus that is weaker than a threshold stimulus.

thermal s. A stimulus produced by a change in skin temperature, a rise giving sensations of warmth, a fall giving sensations of coldness.

threshold s. The least or weakest stimulus that is capable of initiating a response or giving rise to a sensation. SYN: *liminal stimulus; minimal stimulus*.

unconditioned s. Any stimulus that elicits an unconditioned response (i.e., a response that occurs by reflex rather than by learning).

sting [AS *stinge*] **1.** A sharp, smarting sensation, as of a wound or astringent. **2.** A puncture wound made by a venomous barb or spine (e.g., of a marine animal or an insect). SEE: *bite*.

SYMPTOMS: Pain at the puncture site is almost universally reported. The patient may also develop local swelling, which at times is massive, and localized itch. Generalized hives, dizziness, a tight feeling in the chest, difficulty breathing, swelling of the lips and tongue, stridor, respiratory failure, hypotension, syncope, or cardiac arrest may also occur. Anaphylactic reactions such as these require prompt effective treatment.

TREATMENT: If the stinger is still present in the skin, it should be carefully removed. Ice should be applied locally to limit inflammation at the site of the sting and systemic distribution of venom. Diphenhydramine (or other antihistamine) should be given by mouth or parenterally; moreover, if signs and symptoms of anaphylaxis exist, epinephrine should be administered. Corticosteroids are given to reduce the risk of delayed allergic responses. Patients who have had large local reactions or systemic reactions to stings should be referred for desensitization (immunotherapy). In this treatment, gradually increasing dilutions of venom are injected subcutaneously over weeks or months until immunological tolerance develops.

PREVENTION: Those with a history of anaphylactic reactions to venom should avoid exposure to the vectors (e.g., ants, bees, snakes, wasps) as much as possible. Protective clothing (e.g., specialized gloves or shoes) may prevent some stings. Cosmetics, perfumes, hair sprays, and bright or white clothing should be avoided to prevent attracting insects. Because foods and odors attract insects, care should be taken when cooking and eating outdoors.

bee s. SEE: *hymenoptera s.*

caterpillar s. Irritating contact with the hairs of a butterfly or moth larva. More than 50 species of larvae possess urticating hairs that contain a toxin.

Contact can cause numbness and swelling of the infected area, severe radiating pain, localized swelling, enlarged regional lymph nodes, nausea, and vomiting. Although shock and convulsions may occur, no deaths have been reported. The disease is self-limiting. The larva of the flannel moth, *Megalopyge opercularis*, known as the puss caterpillar or woolly worm, is frequently the cause of this sting, particularly in the southern U.S. The fuzz from these larvae can be transported by wind. Treatment involves local application of moist soaks and administration of antihistamines.

catfish s. A toxic, allergic reaction caused by exposure to the venom contained in venomous glands at the base of catfish fins. The stung part should be immediately immersed in water as hot as the patient can stand for 1 hr or until the pain is controlled. Tetanus prophylaxis should be administered if needed.

hornet s. A sting from a wasp of the family Vespidae. SEE: *hymenoptera s.*

hymenoptera s. Envenomation by a fire ant, bee, hornet, or wasp. The sting from any of these insects may cause localized or, in some sensitized patients, systemic allergic reactions. Stings by venomous insects are one of the most common causes of anaphylaxis found in hospital emergency departments.

scorpion s. Injury resulting from scorpion venom. The stings of most species in the U.S. seldom produce severe toxic reactions, but because of the difficulty of distinguishing one species of scorpion from another, each scorpion sting should be treated as if it had been inflicted by a species capable of delivering a very toxic dose of venom. The stings vary in severity from local tissue reactions consisting of swelling and pain at the puncture site, to systemic reactions that compromise breathing and neuromuscular function. Death may rarely occur (e.g., in very young children).

TREATMENT: For mild local reactions, cold compresses and antihistamines are sufficient. Severe reactions may need to be treated with airway management, antivenens, and intensive observation in the hospital. For the source of local antivenens, the use of which is controversial, contact the nearest poison control center.

sea anemone s. Contact with the nematocysts or stinging cells of certain species of the flower-like marine coelenterates causing severe dermatitis with chronic ulceration. In some cases, signs and symptoms of a systemic reaction develop, including headache, nausea, vomiting, sneezing, chills, fever, paralysis, delirium, seizures, anaphylaxis, cardiac arrhythmias, heart failure, pul-

monary edema, and collapse. In rare cases, it is fatal.

TREATMENT: When systemic changes are present, vigorous therapy is indicated for hypotension. Diazepam is administered for convulsions. An electrocardiogram should be monitored for arrhythmias. Treatment for mild stings is symptomatic; application of vinegar to the sting area may inactivate the irritating secretion. All victims should be observed for 6 to 8 hr after initial therapy for rebound phenomenon.

stingray s. Penetration of the skin by the spine of a stingray and injection of venom.

TREATMENT: The injury should be treated by washing the wound with copious amounts of water; seawater should be used if sterile water is unavailable. The wound, which is very painful, should be cleansed thoroughly, and all foreign material should be removed. The wound site should be soaked in hot water (113°F or 45°C) for 30 to 60 min to inactivate the venom. Surgical débridement may be necessary, and narcotics may be needed for pain. Tetanus prophylaxis may be required, depending on the patient's immunization status. The wound is either packed open or loosely sutured to provide adequate drainage. Failure to treat this sting may result in gas gangrene or tetanus.

wasp s. SEE: *hymenoptera s.*

stinger Burner.

stingray (sting'rá) Any of the rays of the family Dasyatidae with wide pectoral fins that resemble wings. Venom glands are located in the spine running along the top of its whiplike tail; severe injuries can be inflicted if this spine penetrates the skin.

S-T interval The interval in an electrocardiogram that represents ventricular repolarization. An elevation of the S-T segment may be seen in myocardial infarction, Prinzmetal's angina, and ventricular aneurysms; depression of the S-T segment is seen in conditions such as coronary ischemia, left ventricular hypertrophy, and digitalis use. SEE: *electrocardiogram* for illus.; *QRST complex*.

stippling (stip'ling) [Dutch *stippelen*, to spot] A spotted condition (e.g., in the retina in some diseases of the eye, or in basophilic red blood cells).

gingival s. An orange-peel appearance of healthy gingiva, believed to be due to the enlargement of the underlying connective tissue papillae in response to massage and toothbrushing; the indent lies between the bulging papillae where the epithelia grow downward as rete ridges.

stirrup, stirrup bone (stir'úp) [AS. *stirrap*, a stirrup] A common name for the

stapes, the third of the three bones in the middle ear. SEE: *ear*.

stitch (stīch) [AS. *stice*, a pricking] **1.** A local, sharp, or spasmodic pain that often occurs in the side or flank of athletes. The following maneuvers may offer relief: bending forward while tightening the abdomen; breathing deeply and exhaling slowly through pursed lips; tightening the belt or pushing one's fingers into the painful area. It is advisable not to eat for 30 to 90 min before exercising, to warm up before exercising, and to work out at a lower intensity for longer periods. **2.** A single loop of suture material passed through skin or flesh by a needle, to facilitate healing of a wound.

stochastic effect A phenomenon that occurs purely by chance.

stochastic model (stō-kās'tik) [Gr. *stokastikos*, skillful in guessing] A statistical model that attempts to reproduce the sequence of events likely to occur in a real-life situation.

stock (stōk) [AS. *stocc*, tree trunk] **1.** The original individual, race, or tribe from which others have descended. **2.** A supply or inventory of a drug or medical device.

Stocker line A pigmented line composed of deposits of iron on the cornea at the advancing edge of the pterygium.

Stockholm syndrome (stōk'hōlm) The emotional involvement between a hostage and the person holding him or her captive. The hostage's action may be due to sympathy for the terrorist's cause, to stress, or to the need to cooperate in order to survive. This syndrome is named after the romantic involvement of a terrorist and a bank employee held hostage during a 1973 bank robbery in Stockholm.

stockinet (stōk'ī-nēt') A tubular woven material of uniform size that is open at both ends. It is used to hold bandages in place or to place uniform protection on a leg, finger, arm, or other part of an extremity, or to line a cast. A variant is termed "bias" stockinet and comes in a roll of different widths.

stocking A snug covering for the foot and leg. A stocking made of elastic material that places firm, even pressure on an extremity, useful in managing edema, preventing deep vein thrombosis (DVT) of the leg, and in treating varicose veins. Pneumatic compression devices, which sequentially inflate and deflate, are more effective than simple elasticized stockings. A graduated compression stocking exerts more pressure at the ankle than on the rest of the limb. Its pressure decreases proximally to permit venous return of blood. External compression reduces the cross-sectional area of the limb and increases the velocity of blood flow in both superficial

and deep veins. It also improves venous valve function, reduces vein distention, and may have favorable effects on coagulants. In hospitalized patients at low risk for DVT, compression stockings may be used alone to prevent the formation of blood clots; for those at higher risk, compression stockings usually are used in combination with anticoagulant therapy, such as heparin, low molecular weight heparin, or warfarin. Low-risk patients are those who have had minor surgery (less than 30 minutes), minor trauma, or minor medical illnesses.

PATIENT CARE: Health care professionals should consider the following as guiding principles for clinical practice in the use of graduated compression stockings in the management of patients.

1. Apply compression stockings before surgery (when possible).

2. Follow manufacturer's recommendations to ensure correct stocking fit.

3. Document measurements and stocking size at initial use to serve as baseline measures for the patient.

4. Review leg measurements regularly to avoid potential complications related to leg swelling.

5. Be sure the patient's legs and feet are dry before putting on stockings.

6. Remove stockings at least once each shift for skin assessment, hygiene, and care.

7. Provide more than one pair of correct size hose to allow for laundering if long-term use is planned.

8. Check stocking periodically during wear to ensure correct placement and to be certain there is no bunching or other restriction that would impede perfusion.

9. Assess neurovascular status regularly during skin care and at other times using the inspection hole in the foot of the compression stocking.

10. Check patient sitting in a chair to be sure stockings are not compromising perfusion by acting as a tourniquet at the knee.

11. Teach patient and family the reason for using compression stockings, concerns for application and correct fit, care of the skin, and the importance of assessing for leg swelling. If the patient has difficulty putting on compression hose, suggest wearing rubber gloves to help grip the stockings. Warn the patient not to pull too hard, because this could rip the hose. Applying a lubricating silicone lotion to the leg before donning the stockings may help to reduce friction. Assistive devices are available to help with donning compression stockings. If stockings roll or slip down at the top, a roll-on adhesive designed for compression stockings can be applied to the leg to help resolve this problem. Advise the patient to replace stockings every 6

months. The patient should avoid standing or sitting for long periods, wearing constricting clothing (girdles, etc.), and crossing the legs. Legs and feet should be protected from injury and inspected daily.

antiembolism s. An elastic stocking applied to the lower extremity to reduce the likelihood of developing a deep venous thrombosis (e.g., during prolonged periods of bedrest or inactivity).

TED s. Elastic hose worn on the lower extremities to prevent thrombophlebitis, while at prolonged bedrest or during periods of prolonged immobility.

stocking aid A device for assisting persons with limited function to put on socks or stockings.

stockpile (stŏk'pīl") To withhold from immediate use; to maintain in storage for future needs. In many countries stockpiles of food rations, medications, or vaccines are maintained by governmental agencies in anticipation of future public health needs.

stoichiometry (stoy'kē-ŏm'ē-trē) [Gr. *stoicheion*, element, + *metron*, measure] The study of the mathematics of chemistry and chemical reactions; chemical calculations.

stoke (stŏk) [Sir George Stokes, Brit. physicist, 1819–1903] A unit of viscosity equal to 10^{-4} m²/sec.

Stokes-Adams syndrome (stŏks-ăd' äms) [William Stokes, Irish physician, 1804–1878; Robert Adams, Irish physician, 1791–1875] Loss of consciousness caused by a decreased flow of blood to the brain. It may be caused by any transient interference with cardiac output such as incomplete or complete heart block. The patient may be light-headed or become completely unconscious and have brief convulsive body movements. Treatment includes basic and advanced cardiac life support measures (e.g., rescue breathing, chest compressions, administration of epinephrine, or cardiac pacing, as indicated by the patient's responses). SYN: *Adams-Stokes syndrome*.

PATIENT CARE: The patient's airway, breathing, apical and radial pulses, blood pressure, and cardiac rhythm are monitored and supported. Emergency treatment (atropine sulfate, external pacing) is provided as necessary according to prescribed protocols. The patient is prepared for cardiac pacemaker implantation; reassurance and support are provided to the patient and family, pacemaker maintenance is taught, and the patient is assisted to return to usual activities.

Stokes' lens [George Stokes] Device used to diagnose astigmatism.

stoma (stŏ'mă) *pl.* **stomatapl. -mas** [Gr., mouth] **1.** A mouth, small opening, or pore. **2.** An artificially created opening between two passages or body

cavities or between a cavity or passage and the body's surface. **3.** A minute opening between cells of certain epithelial membranes, esp. peritoneum and pleura.

stomach (stŏm'ăk) [Gr. *stomachos*, mouth] A muscular, distensible saclike portion of the alimentary tube between the esophagus and duodenum. SEE: *illus.*

ANATOMY: It is below the diaphragm to the right of the spleen, partly under the liver. It is composed of an upper fundus, a central body, and a distal pylorus. It has two openings: the upper cardiac orifice opens from the esophagus and is surrounded by the lower esophageal (cardiac) sphincter. The lower pyloric orifice opens into the duodenum and is surrounded by the pyloric sphincter. The wall of the stomach has four layers. The outer serous layer (visceral peritoneum) covers almost all of the organ. The muscular layer just beneath it has three layers of smooth muscle: an outer longitudinal layer, a medial circular layer, and an inner oblique layer. The submucosa is made of connective tissue that contains blood vessels. The mucosa is the lining that contains the gastric glands, simple tubular glands of columnar epithelium that secrete gastric juice. Chief cells secrete pepsinogen; parietal cells secrete hydrochloric acid and the intrinsic factor; mucous cells secrete mucus; G cells secrete gastrin.

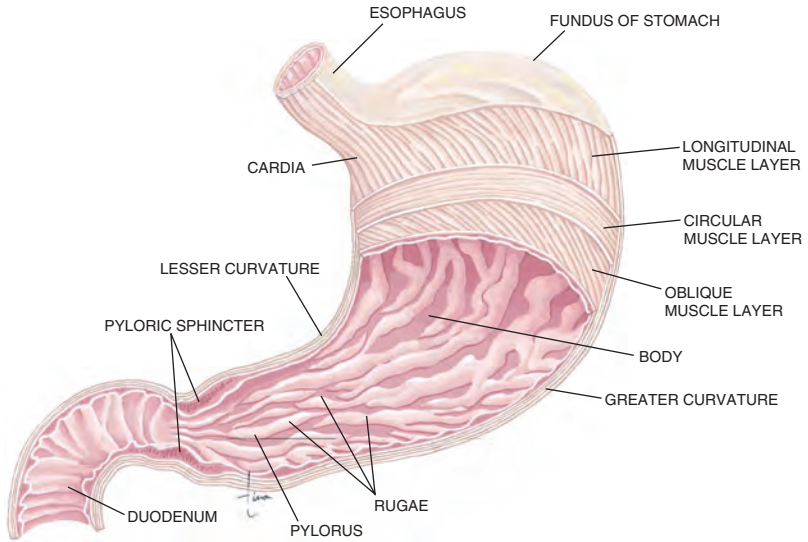
FUNCTION: The stomach is a reservoir that permits digestion to take place gradually; emptying of the stomach is under both hormonal and nervous control. Secretions and motility are increased by parasympathetic impulses (vagus nerves) and decreased by sympathetic impulses. The presence of food stimulates the production of the hormone gastrin, which increases the secretion of gastric juice. Protein digestion begins in the stomach; pepsin digests proteins to peptones. Hydrochloric acid converts pepsinogen to active pepsin and has little effect on unemulsified fats except those of cream. The intrinsic factor in gastric juice combines with vitamin B₁₂ (extrinsic factor) to prevent its digestion and promote its absorption in the small intestine. Little absorption takes place in the stomach because digestion has hardly begun, but water and alcohol are absorbed.

bilocular s. Hourglass s.

cascade s. A form of hourglass stomach in which there is a constriction between the cardiac and pyloric portions. The cardiac portion fills first, and then the contents cascade into the pyloric portion.

cow horn s. A high, transversely placed stomach.

foreign bodies in the s. Accidental or



STOMACH

Anterior view, sectioned

intentional ingestion of materials such as coins, nails, bottle tops, marbles, and buttons. In some instances, these should be removed endoscopically (e.g., copper coins).

hourglass s. The division of the stomach (in the form of an hourglass) by a muscular constriction; often associated with gastric ulcer. **SYN:** *bilocular stomach*.

leather-bottle s. A condition of the stomach caused by hypertrophy of the stomach walls or their infiltration with malignant cells. **SEE:** *linitis plastica*.

thoracic s. A variant of hiatal hernia in which the stomach lies above the diaphragm. This may result from an embryonic anomaly in which the stomach fails to descend, or from a hernia of the diaphragm.

water-trap s. A stomach with the pylorus situated unusually high, causing slow emptying.

stomachal (stŭm'ă-kāl) [Gr. *stomachos*, mouth] Rel. to the stomach.

stomachic (stŏ-măk'ik) **1.** Concerning the stomach. **2.** A medicine that stimulates the action of the stomach.

stomach intubation Passage of a tube into the stomach to obtain gastric contents for examination, for prophylaxis and treatment of ileus, to remove ingested poisons, or for feeding.

stoma covers and filters Cloth or foam overlays used to limit the inhalation of dust, fumes, or vapors by laryngectomees and to warm inhaled air.

stomal (stŏ'māl) [Gr. *stoma*, mouth] Concerning a stoma.

stomata Pl. of stoma.

stomatal (stŏ'mă-tāl) [Gr. *stoma*, mouth] Concerning stomata.

stomatic (stŏ-măt'ik) Pert. to or rel. to the mouth.

stomatitis (stŏ-mă-tī'tis) [" + *itis*, inflammation] Inflammation of the mouth (including the lips, tongue, and mucous membranes). **SEE:** *illu*s.; *noma*; *thrush*.



STOMATITIS

As caused by herpes simplex virus

ETIOLOGY: Stomatitis may be associated with a variety of conditions including viral infections, chemical irritation, radiation therapy, mouth breathing, paralysis of nerves supplying the oral area, chemotherapy that damages or destroys the mucous membranes, adverse reactions to other medicines, or acute sun damage to the lips. The nasal and oral mucosa are esp. vulnerable to being traumatized by the use

of nasal catheters to administer oxygen or nutrients and by dental appliances. Also, these areas may be damaged during surgery when an endotracheal tube is in place.

SYMPTOMS: Symptoms include oral pain, esp. when eating or drinking, bad breath, or difficulty swallowing. Findings include oral ulcers, friability of the mucous membranes, swollen cervical lymph nodes, and sometimes fever.

TREATMENT: Treatment depends on the underlying cause but is often symptomatic. The mucous membranes should be kept moist and clear of tenacious secretions. Care of the teeth and gingival tissues should be comprehensive and include flossing. The pain of stomatitis may be alleviated by systemic analgesics or application of anesthetic preparations to painful lesions. It is important for patients with dentures to clean the dentures thoroughly. Dentures should be removed from patients who are unconscious or stuporous. SEE: *toothbrushing*.

aphthous s. Aphthous ulcer.

corrosive s. Stomatitis resulting from intentional or accidental exposure to corrosive substances.

diphtheritic s. Inflammation of the oral mucosa caused by infection with *Corynebacterium diphtheriae*. SEE: *diphtheria*.

herpetic s. Stomatitis seen with primary infection with herpes simplex virus.

major aphthous s. A disease in which large recurring or migrating painful ulcers appear within the oral cavity (on the gingiva and soft palate) and sometimes on the lips.

membranous s. Stomatitis accompanied by the formation of a false or adventitious membrane.

mercurial s. A form of stomatitis seen in those exposed to elemental mercury or mercury vapors.

mycotic s. Thrush.

simple s. Erythematous inflammation of the mouth occurring in patches on the mucous membranes.

traumatic s. Stomatitis resulting from mechanical injury as from ill-fitting dentures, sharp jagged teeth, or biting the cheek.

ulcerative s. Necrotizing ulcerative gingivitis.

vesicular s. Aphthous ulcer.

Vincent's s. Necrotizing ulcerative gingivitis.

stomato- Combining form meaning *mouth*.

stomatocyte (stō'mă-tō-sīt") A swollen erythrocyte with a slit-like area of central pallor that is found in hereditary stomatocytosis.

stomatocytosis, hereditary (stō'mă-tō-sī-tō'sīs) A disorder of erythrocytes

usually inherited as an autosomal dominant. A membrane defect in the red blood cells permits the entry of excess sodium ions and water, causing the cells to swell. Hemolysis and anemia range from mild to severe.

stomatodynia (stō'mă-tō-dīn'ē-ă) [Gr. *stoma*, mouth, + *odyne*, pain] Pain in the mouth.

stomatogastric (stō'mă-tō-gās'trik) [" + *gaster*, belly] Concerning the stomach and mouth.

stomatognathic (stō'mă-tō-g-nāth'ik) [" + *gnathos*, jaw] Indicating the mouth and jaws together.

stomatologist (stō'mă-tōl'ō-jist) [" + *logos*, word, reason] A specialist in the treatment of diseases of the mouth.

stomatology (stō'mă-tōl'ō-jē) The science of the mouth and teeth and their diseases.

stomatomalacia (stō'mă-tō-mă-lă'shē-ă) [" + *malakia*, softening] Pathological softening of any structures of the mouth.

stomatomenia (stō'mă-tō-mē'nē-ă) [" + *meniaia*, menses] Bleeding from the mouth at the time of menstruation.

stomatomycosis (stō'mă-tō-mī-kō'sis) [" + *mykes*, fungus, + *osis*, condition] Any disease of the mouth caused by fungi.

stomatopathy (stō'mă-tōp'ă-thē) [" + *pathos*, disease, suffering] Any mouth disease.

stomatoplasty (stō'mă-tō-plās'tē) [" + *plassein*, to form] Plastic surgery or repair of the mouth.

stomatorrhagia (stō'mă-tō-rā'jē-ă) [" + *rhegnynai*, to burst forth] Hemorrhage from the mouth or gums.

stomatosis (stō'mă-tō'sis) [" + *osis*, condition] Any disease of the mouth.

stomoccephalus (stō'mō-sēf'ă-lūs) [Gr. *stoma*, mouth, + *kephale*, head] A deformed fetus with a very small head and neck.

stomodeum (stō'mō-dē'ūm) [" + *hodaio*s, a way] An external depression lined with ectoderm and bounded by frontonasal, mandibular, and maxillary processes of the embryo. It forms the anterior portion of the oral cavity. Its floor, the pharyngeal membrane, separates the stomodeum from the foregut. The buccopharyngeal membrane, which forms the floor of the stomodeum, ruptures during the 4th week of gestation, and the gut tube then comes in communication with the amniotic fluid of the amniotic cavity.

stone [AS. *stan*] **1.** Calculus. **2.** In Britain, a unit of weight, 14 lb avoirdupois.

dental s. A hemihydrate of gypsum divided into four classes according to the qualities resulting from differing methods of preparation. It is used in dentistry in the preparation of models and study casts.

gray s. A synthetic stone composed of carborundum and rubber used to polish dental restorations.

pulp s. A calcified structure present in the pulp chamber of a tooth. SYN: *denticle* (2).

red s. An abrasive stone with garnet as its main component, for polishing dental restorations.

salivary s. A calcified stone present in the ducts of salivary glands; also called *stalolith*.

stonefish A poisonous member of the Synbranchidae family that carries a deadly tissue-destructive enzyme in its spines. Divers exposed to the toxin may die within days of exposure, often after a painful and mutilating illness.

stonustoxin (stŏn'us-tŏk-sĭn) A purified protein isolated from the venom of the stonefish, one of the most lethal members of the animal kingdom. The protein dissolves cells and tissues, and produces hypotension and death after it contacts animal tissues.

stool (stool) [AS. *stol*, a seat] 1. Evacuation of the bowels. 2. Feces.

bilious s. Yellow or yellow-brown discharges in diarrhea.

fatty s. Steatorrhea (2).

pea soup s. Liquid stools characteristic of typhoid.

rice water s. Watery serum stools with detached epithelium, as in cholera.

stool softener A substance that acts as a wetting agent and thus promotes soft, malleable bowel movements. A stool softener is not a laxative.

stopcock (stŏp'kŏk) A valve that regulates the flow of fluid from a container.

stoppage (stŏp'aj) [AS. *stoppian*] Obstruction of an organ. SEE: *cholestasia*.

storage disease A disorder involving abnormal deposition of a substance in body tissues. SEE: *glycogen storage disease*; *Wilson's disease*.

storax (stŏ'raks) A balsam obtained from the scarred trunk of *Liquidambar orientalis*. It is a component of tincture of benzoin and has been used as an expectorant.

storm [AS.] A sudden outburst or exacerbation of the symptoms of a disease.

electrical s. Recurring episodes of unstable ventricular tachycardia or ventricular fibrillation within 24 hr of a first life-threatening arrhythmia.

thyroid s. SEE: *thyroid storm*.

stout (stowt) [O.Fr. *estout*, bold] Having a bulky body.

STP *standard temperature and pressure*.

STPD *standard temperature and pressure, dry*.

Str *Streptococcus*.

strabismic (strā-biz'mĭk) [Gr. *strabismos*, a squinting] Pert. to or afflicted with strabismus. SYN: *strabismal*.

strabismometer (strā-biz-mŏm'ēt-ēr) [" + *metron*, a measure] An instrument

for determining the amount of strabismus.

strabismus (strā-bĭz'mŭs) [Gr. *strabismos*, a squinting] A disorder of the eye in which optic axes cannot be directed to the same object. This disorder is present in about 4% of children. The squinting eye always deviates to the same extent when the eyes are carried in different directions: *unilateral* when the same eye always deviates; *alternating* when either deviates, the other being fixed; *constant* when the squint remains permanent; *periodic* when the eyes are occasionally free from it. Strabismus can result from reduced visual acuity, unequal ocular muscle tone, or an oculomotor nerve lesion. SYN: *heterotropia*. SEE: *microstrabismus*; *squint*.

accommodative s. Strabismus due to disorder of ocular accommodation. SYN: *bilateral strabismus*.

alternating s. Strabismus affecting either eye alternately.

bilateral s. Accommodative s.

concomitant s. Strabismus in which both eyes move freely but retain an unnatural relationship to each other.

convergent s. Strabismus in which the deviating eye turns inward.

divergent s. Strabismus in which the deviating eye turns outward.

horizontal s. Strabismus in which the deviation of the visual axis is in the horizontal plane.

intermittent s. Strabismus recurring at intervals.

monocular s. Strabismus in which the flow of fluid from a container.

monolateral s. Strabismus with the squinting eye always the same.

nonconcomitant s. Strabismus of an eye that varies in degree with the change in direction in which the eye moves.

paralytic s. Strabismus due to paralysis of one of the extraocular muscles.

spastic s. Strabismus due to contraction of an ocular muscle.

vertical s. Strabismus in which the eye turns upward.

Strachan syndrome (strā'chăn) [William H. W. Strachan, Brit. physician, 1857-1921] The neurological syndrome of amblyopia, painful neuropathy, and orogenital dermatitis that occurs in undernourished persons in many tropical countries. In the U.S., the syndrome occasionally is seen in alcoholic patients. Treatment is symptomatic and includes adequate nutrition. Formerly called Jamaican neuritis.

straight back syndrome An abnormally erect position of the spine, associated with pectus excavatum and functional cardiac murmurs.

strain (strān) [AS. *streon*, offspring]

1. A stock, said of bacteria or protozoa from a specific source and maintained in

successive cultures or animal inoculation. **2.** A hereditary streak or tendency. **strain** (strān) [O.Fr. *estreindre*, to draw tight] **1.** To pass through, as a filter. **2.** To injure by making too strong an effort or by excessive use. **3.** Excessive use of a part of the body so that it is injured. **4.** Trauma to the muscle or the musculotendinous unit from violent contraction or excessive forcible stretch. It may be associated with failure of the synergistic action of muscles. SEE: *sprain*. **5.** To make a great effort, as in straining to have a bowel movement. This is done by means of the Valsalva maneuver, which increases intra-abdominal pressure and helps to expel feces. **6.** Force applied per unit area. Tension, compression, or shear stress placed on a tissue leads to distortion of the structure and the release of energy. **7.** Psychological trauma.

riders' s. Strain of the adductor longus muscles of the thigh, resulting from strain in riding horseback.

strainer (strān'ēr) **1.** Device used for retaining solid pieces while liquid passes through. SYN: *filter*. **2.** In river rescue, a term used to describe locations where water is moving through grating, wire mesh, or downed trees. A strainer is dangerous because victims can get caught in it or pinned up against it by the force of the moving current.

strain radiography A radiographical image taken with the involved region, usually a bone or joint, under static force or tension; used to determine if a partial tear or rupture of the ligaments has occurred. Greater than normal gaping of the joint surfaces indicates a tear. Strain radiography reveals pathological changes that might be inapparent without use of this technique. SYN: *stress radiography*.

strait (strāt) [O.Fr. *estreit*, narrow] A constricted or narrow passage.

s. of pelvis The inferior and superior openings of the true pelvis.

straitjacket A shirt with long sleeves laced on a patient and fastened to restrain the arms.



Because patients placed in physical restraints may suffer injury from their use, they should be applied to patients only under legally accepted guidelines and protocols.

stramonium (strā-mō'nē-ūm) [L.] The dried leaves of the toxic anticholinergic plant *Datura stramonium*. SYN: *jimson weed*.

stramonium poisoning SEE: under *poisoning*.

strand A single thread or fiber.

strangalesthesia (sträng'gäl-ēs-thē'zē-ä) [L. *strangulare*, halter, + *aisthesis*,

sensation] A girdle-like sensation of constriction. SYN: *zonesthesia*.

strangle (sträng'gl) [L. *strangulare*, halter] **1.** To choke or suffocate. **2.** To be choked from compression of the trachea.

strangulation (sträng'gū-lā'shūn) [L. *strangulare*, halter] The compression or constriction of a part, as the bowel or throat, causing suspension of breathing or of the passage of contents. Congestion accompanies this condition. **strangulated**, *adj.*

internal s. The entrapment of a segment of the intestine in an internal hernia or by adhesion, or through a rent or hiatus in the diaphragm, which leads to vascular compromise with ensuing gangrene.

strangury (sträng'gū-rē) [Gr. *stranx*, drop, squeezed out, + *ouron*, urine] Painful and interrupted urination in drops produced by spasmodic muscular contraction of the urethra and bladder.

strap, strapping (strāp) [Gr. *strophos*, a cord] **1.** A band, as one of adhesive tape, used to hold dressings in place or to approximate surfaces of a wound. **2.** To bind with strips of adhesive tape.

stratification (strāt'ī-fi-kā'shūn) [L. *stratificare*, to arrange in layers] The classification of objects into a hierarchy; the making of an ordered series of categories.

risk s. A formal estimate of the probability of a person's succumbing to a disease or benefiting from a treatment for that disease.

stratified (strāt'ī-fid) [L. *stratificare*, to arrange in layers] Arranged in the form of layers.

stratified epithelium SEE: under *epithelium*.

stratiform (strāt'ī-form) [L. *stratum*, layer, + *forma*, shape] Arranged in layers.

stratify (strā'tī-fi) [NL. *stratificare*] **1.** To arrange in layers. **2.** To classify into categories, e.g., of risk for a particular illness.

stratum (strā'tūm, strāt'ūm) *pl.* **strata** [L.] A layer.

s. basale **1.** The innermost or deepest layer of the endometrium. **2.** Stratum germinativum.

s. compactum The superficial or outermost layer of the endometrium.

s. corneum The outermost horny layer of the epidermis.

s. disjunction The outermost layer of the stratum corneum, which is being shed constantly.

s. functionalis Functional layer of the endometrium.

s. germinativum The innermost layer of the epidermis; a row of cuboidal cells that divide to replace the rest of the epidermis as it wears away. It is part of the stratum malpighii. SYN: *stratum basale* (2). SEE: *s. malpighii*.

s. granulosum A layer of cells containing deeply staining granules of keratohyalin found in the epidermis of the skin between the stratum spinosum and the stratum corneum. SEE: *s. malpighii*.

s. lucidum The translucent layer of the epidermis between the stratum corneum and the stratum granulosum in the palms and soles.

s. malpighii The inner layer of the epidermis. It was first seen with low magnification and described in the 1600s by Marcello Malpighi. It includes both the stratum germinativum and stratum spinosum of today's nomenclature.

s. papillare Papillary layer.

s. reticulare The recticular layer of the corium just beneath the papillary layer.

s. spinosum The prickle cell layer, so called because of its prominent intercellular attachments. It is part of the stratum malpighii. SEE: *s. malpighii*.

s. spongiosum The middle layer of decidua of the endometrium.

s. submucosum The layer of smooth muscle fibers of the myometrium lying contiguous with the endometrium.

s. subserosum The layer of smooth muscle fibers of myometrium that lies immediately under the serous coat.

s. supravasculare The layer of circular and longitudinal muscle fibers of the myometrium lying between the stratum subserosum and the stratum vasculare.

s. vasculare The layer of smooth muscle fibers in myometrium lying between the stratum submucosum and the stratum supravasculare.

strawberry mark A soft, modular, vascular nevus usually present on the face or neck, occurring at birth or shortly afterward. SEE: *nevus flammeus*.

straw itch A self-limiting skin condition accompanied by itching owing to working in straw or sleeping on a straw mattress. The straw contains a mite that causes the pruritic eruption.

streak (strĕk) [AS. *strica*] A line or stripe. SEE: *stria*.

angioid s. A dark streak seen in the retina that represents a defect in Bruch's membrane. It is often an age-related phenomenon but sometimes is seen in connective tissue diseases, like pseudoxanthoma elasticum, or hemoglobinopathies, such as sickle cell anemia.

gonadal s. Ovarian atrophy or aplasia; a finding in persons with Turner's syndrome.

Moore's lightning s. The subjective visual sensation of lightning-like flashes at the time of eye movements, esp. noticeable in dim or absent light. They are usually vertical and on the lateral part of the visual field. The flashes are accompanied by or followed by dark

spots before the eyes. This condition is not related to significant eye disease.

primitive s. SEE: *primitive streak*.

stream (strĕm) A steady flow of a liquid.

cathode s. Negatively charged electrons emitted from a cathode and accelerated in a straight line to interact with an anode. X-ray photons are then produced. SEE: *Bremsstrahlung radiation*; *ray, cathode*.

strength 1. The maximum force that can be generated by a muscle or muscle group. **2.** The concentration of a solution or substance. **3.** The intensity of light, color, or sound. **4.** The ability to resist deformation, fracture, or abrasion.

breaking s. The point at which an amount of applied force breaks a material. Also called *tensile strength*.

compression s. The point at which a material loses its shape when force is applied. Also called *crushing strength*.

ego s. In classical psychoanalytical theory, the ability of the ego to maintain its various functions, the prime one of which is to perceive reality and adapt to it.

impact s. The force required to fracture a material.

shear s. The resistance of a material to force applied perpendicular to the plane of the material.

strephosymbolia (strĕf'ō-sīm-bō'lĕ-ă) [Gr. *strephēin*, to twist, + *symbolon*, symbol] **1.** Difficulty in distinguishing between letters that are similar but face in opposite directions (e.g., p-q, b-d). **2.** The perception of objects as reversed, as in a mirror.

Strep throat Streptococcal pharyngitis.

strepto- [Gr. *streptos*, twisted] Combining form meaning *twisted*.

Streptobacillus moniliformis (strĕp'tō-bă-sil'ūs mō-nil'ĭ-fōr'mĭs) [NL] A gram-negative bacillus present in the mouths of rats, mice, and cats. It is transmitted to humans through bites or by ingestion of milk contaminated by rats. It causes one form of rat-bite fever, marked by prolonged fever, skin rash, and generalized arthritis. The infection may be treated with amoxicillin-clavulanate or doxycycline. SYN: *Haverhill fever*. SEE: *Spirillum minus*.

streptococcal (strĕp'tō-kōk'ăl) [ʹ + *kokkos*, berry] Caused by or pert. to streptococci.

streptococcal pyrogenic exotoxins The preferred name for those toxic chemicals released by Group A streptococci that were formerly known as erythrotoxic toxins. They are responsible for the rash children experience with scarlet fever and for many of the septic manifestations of toxic shock syndrome.

streptococemia (strĕp'tō-kōk-sĕ mĕ-ă) [ʹ + *haima*, blood] Presence of streptococci in the blood.

streptococcosis (strĕp'tō-kōk'sĭ-kō'sĭs)

[" + " + *osis*, condition] Any streptococcal infection.

Streptococcus (strĕp"tō-kōk'ūs) [" + *hōkōs*, berry] ABBR: Str. A genus of gram-positive, facultatively anaerobic cocci of the family Streptococcaceae, in which the cells tend to form chains or pairs. Many species are saprophytes, but others are virulent pathogens. They may be classified as alpha (α), beta (β), and gamma (γ) on the basis of their growth on blood agar plates and the hemolysis produced. Alpha-hemolytic streptococci produce partial hemolysis and create a greenish coloration around the colonies. Beta-hemolytic types completely hemolyze blood and form clear zones round colonies; those of the gamma type are nonhemolytic and do not change the color of the medium. Streptococci are also classified into several immunological groups (Lancefield groups) designated by the letters A through H, and K through O. Most human infections are caused by groups A, B, D, F, G, H, K, and O. Approximately 100 types of group A beta-hemolytic streptococci have been identified. SEE: *rheumatic fever*; *scarlet fever*.

S. agalactiae A group B β -hemolytic species found in raw milk that is the leading cause of bacterial sepsis and meningitis in newborns and a major cause of endometritis and fever in postpartum women.

Infected infants develop early-onset symptoms in the first 5 days of life, including lethargy, jaundice, respiratory distress, shock, pneumonia, and anorexia. The fatality rate is 50% for very low birth weight neonates and 2% to 8% in term infants.

Infected postpartum women develop late-onset symptoms 7 days to several months after giving birth. Symptoms include sepsis, meningitis, seizures, and psychomotor retardation. Neonatal infection may be prevented by detecting colonization by these bacteria in pregnant women and by administering antibiotics prior to birth.

S. bovis A species found in the alimentary tract of cattle. It may cause endocarditis in humans.

S. equisimilis A species that has been isolated from the upper respiratory tract. It may be associated with erysipelas, puerperal sepsis, pneumonia, osteomyelitis, bacteremia, and endocarditis.

S. faecalis The former name of *Enterococcus faecalis*.

S. iniae A species pathogenic to fish that may cause cellulitis in persons who handle affected fish and have skin abrasions.

S. mutans A species that has been implicated in dental caries initiation and bacterial endocarditis.

S. pneumoniae A species that occurs in pairs with capsules, is also called the pneumococcus, and may be part of the transient flora of the upper respiratory tract. Based on capsular chemistry, more than 80 serological types have been identified. It is the causative agent of certain types of pneumonia, esp. lobar pneumonia, and is associated with other infectious diseases such as meningitis, conjunctivitis, endocarditis, periodontitis, septic arthritis, osteomyelitis, otitis media, septicemia, spontaneous bacterial peritonitis, and, rarely, urinary tract infections. About 40,000 people die of pneumococcal disease each year in the U.S., more than from any other vaccine-preventable illness. SYN: *pneumococcus*.

S. pyogenes Any of the group A β -hemolytic streptococci causing suppurative infections. These streptococci are the causative agents of scarlet fever, erysipelas, bacterial pharyngitis, puerperal sepsis, and necrotizing fasciitis.

streptococcus (strĕp"tō-kōk'ūs)*pl.* **streptococci** An organism of the genus *Streptococcus*. SEE: *bacteria* for illus. **streptococci**, *adj.*

α -hemolytic s. Streptococci that, when grown on blood-agar, produce a zone of partial hemolysis around each colony and often impart a greenish appearance to the agar. Included are *S. pneumoniae* and viridans group streptococci.

β -hemolytic s. Streptococci that, when grown on blood-agar, produce complete hemolysis around each colony, indicated by a yellowish zone. Included are *S. pyogenes* and *S. agalactiae*.

group A s. Beta-hemolytic streptococci (esp. *Streptococcus pyogenes*) that produce human diseases, including pharyngitis, cellulitis, erysipelas, impetigo, otitis media, pneumonia, scarlet fever, necrotizing fasciitis, sepsis, sinusitis, and tonsillitis. In addition, group A streptococcus infection may have immunologic sequelae such as rheumatic fever and acute glomerulonephritis.

group B s. Beta-hemolytic streptococci that are a leading cause of early-onset neonatal infections and late-onset postpartal infections. In women, this is marked by urinary tract infection, chorioamnionitis, postpartum endometritis, bacteremia, and wound infections complicating cesarean section. Eradication of this organism during labor decreases the chances for neonatal sepsis. Performance of cervical-rectal screening cultures at 35 to 37 weeks' gestation (and intrapartum treatment with penicillin if cultures are positive) prevents the development of neonatal sepsis.

group D s. Any *Streptococcus* species, including *S. bovis* and *S. equinus*, that is not destroyed by bile or exposure

to heat. These strains can be destroyed in a laboratory by a 6.5% concentration of sodium chloride.

nutritionally variant s. ABBR: NVS.

The obsolete name for bacteria of the genera *Abiotrophia* or *Granulicatella*.

streptodornase (strĕp'tō-dor'nās) One of the enzymes produced by certain strains of hemolytic streptococci. It is capable of liquefying fibrinous and purulent exudates.

streptogramin (strĕp'tō-grām'in) Any of a class of antibiotics effective against gram-positive bacteria that bind to the bacterial ribosome and inhibit protein synthesis. An example is the combination antibiotic quinupristin-dalfopristin.

streptolysin (strĕp'tōl'ī-sin) An enzyme produced by streptococci that destroys blood cells.

s. O Streptolysin that is inactivated by oxygen.

s. S Streptolysin that is inactivated by heat or acid, but not by oxygen.

Streptomyces (strĕp'tō-mī'sēz) [*l'* + Gr. *mykes*, mushroom, fungus] A genus of branching, filamentous bacteria of the family Streptomycetaceae. Most species live in the soil, and few are pathogenic. Many produce antibiotics, and some produce immune-suppressing and anticancer drugs. Important species within the genus are *S. coelicolor* and *S. lividans*.

streptomycesis (strĕp'tō-mī-kō'sis) [*l'* + *mykes*, fungus, + *osis*, condition] An infection caused by microorganisms of the genus *Streptomyces*.

stress (strĕs) [O.Fr. *estresse*, narrowness] **1.** Any physical, physiological, or psychological force that disturbs equilibrium **2.** The consequences of forces that disturb equilibrium. **3.** Force applied per unit area. In the physical sciences, stresses include forces that deform or damage materials, such as impact, shear, torsion, compression, and tension. These physical stresses are particularly important in certain branches of health care (e.g., dentistry or orthopedic surgery) and in biotechnology industries (e.g., in the design and use of prostheses, grafts, and perfusion pumps).

Physiological stresses include agents that upset homeostasis, such as infection, injury, disease, internal organ pressures, or psychic strain.

In psychology, stresses include perceptions, emotions, anxieties, and interpersonal, social, or economic events that are considered threatening to one's physical health, personal safety, or well-being. Marital discord; conflicts with others; battle, torture, or abuse; bankruptcy; incarceration; health care crises; and self-doubt are all examples of conditions that increase psychic stresses. The response of an organism or

material to stress is known as adaptation. SEE: *adaptation; anxiety; fracture; homeostasis; Laplace, law of; relaxation response.*

critical incident s. One's emotional reaction to a catastrophic event such as a mass casualty incident or the death of a patient or coworker. Often such events negatively affect the well-being of health care providers.

oxidative s. The cellular damage caused by oxygen-derived free radical formation. The three most important are superoxide (O₂⁻), hydrogen peroxide (H₂O₂), and hydroxyl ions; these are produced during normal metabolic processes as well as in reaction to cell injury. The extent of their damaging potential can be decreased by antioxidants. SEE: *antioxidant; free radical; superoxide; superoxide dismutase.*

shear s. Shear.

stress-breaker A device incorporated into a removable denture. It is designed to relieve abutting teeth from excessive stress during chewing.

stress incontinence SEE: *incontinence, stress urinary.*

stress management (strĕs măn'tj-mĭnt) Any intervention that may help control the physiological changes or psychological discomfort caused by the body's response to stress. There are many methods of stress management, including relaxation techniques (e.g., yoga, meditation, deep breathing, and progressive muscle relaxation), choosing a lifestyle with meaning and purpose, physical activity, maintenance of a positive attitude and outlook, and prayer.

stressor An agent or condition capable of producing stress.

systemic s. A stressor that produces generalized systemic responses.

topical s. Stress that causes mild inflammation or local damage.

stress overload Excessive amounts and types of demands that require action. SEE: *Nursing Diagnoses Appendix.*

stress radiography Strain radiography.

stress response protein SEE: under *protein.*

stress test Exercise tolerance test.

abduction s.t. A maneuver to assess whether a patient has suffered a ligamentous injury to the knee. With the patient's hip extended over the edge of the examining table, the examiner externally rotates the patient's lower extremity at the ankle, while providing internal rotation from the lateral border of the thigh. SEE: *valgus s.t.*

adenosine s.t. A test for coronary artery disease that uses the drug adenosine as a vasodilator, usually along with radionuclide imaging of the heart or echocardiography. The drug is used in place of physical exercise to demonstrate obstructions in the coronary ar-

teries (e.g., in patients who cannot perform physical exercise or whose exercise testing results have been uninterpretable).

valgus s.t. A test of ligament laxity, where a passive force is exerted on a joint that, in the presence of ligamentous insufficiency, would cause the medial joint space to open (e.g., medial collateral ligament of the knee and ulnar collateral ligament of the elbow).

varus s.t. A test of ligament laxity, where a passive force is exerted on a joint that, in the presence of ligamentous insufficiency, would cause the lateral joint space to open (e.g., lateral collateral ligament of the knee and radial collateral ligament of the elbow).

stretch (strĕch) [AS. *streccan*, extend] To draw out or extend to full length.

static s. A sustained, low-intensity lengthening of soft tissue (e.g., muscle, tendon, or joint capsule), performed to increase range of motion. The stretch force may be applied continuously for as short as 15 to 30 sec or as long as several hours.

stretcher (strĕch'er) Litter, equipped with wheels, used for transporting patients. SYN: *gurney*.

basket s. A stretcher made of metal or strong synthetic material in which a patient is placed for removal from an accident site. The stretcher may also be lifted by ropes. Also called *Stokes stretcher*.

orthopedic s. A metal stretcher that is hinged along its long axis and designed to be split so that it can be placed on both sides of the patient and then reassembled to lift the patient. SYN: *scoop stretcher*.

pole s. A type of stretcher, also known as the Army type, composed of folding cloth or canvas supported by poles.

scoop s. Orthopedic s.

spineboard s. A type of stretcher made from a wooden board or strong synthetic material used to secure patients with spinal trauma to prevent movement and possible paralysis; also called a long backboard.

split-frame (scoop) s. A metal stretcher that can be split down the middle, slid under a patient, and reconnected.

stretching of contractures Techniques performed to increase the length of tissues that have been abnormally shortened (e.g., ligaments, muscles, or joint capsules). A slow, steady, and gradually increasing force should be used.

stretch mark Stria atrophica.

stria (strī'ā) *pl.* **striae** [L., a channel] A line or band elevated above or depressed below surrounding tissue, or differing in color and texture. SEE: *streak*.

s. atrophica A fine pinkish-white or

gray line, usually 14 cm long, seen in parts of the body where skin has been stretched; commonly seen on thighs, abdomen, and breasts of women who are or have been pregnant; in persons whose skin has been stretched by obesity, tumor, or edema; or in persons who have taken adrenocortical hormones for a prolonged period. SYN: *stretch mark*. SYN: *stria gravidarum*.

striae gravidarum Striae atrophica.

s. medullaris In the brain, a thin axon tract of the limbic system. SEE: *limbic system* for illus.

olfactory striae Three bands of fibers (lateral, intermediate, and medial) that form the roots of the olfactory tract.

striae of Retzius The benign incremental lines seen periodically in the calcified enamel of teeth.

striae terminalis A band of fibers in the roof of the inferior horn running to the floor of the body of the lateral ventricle.

striatal (strī-ā'tāl) [L. *striatus*, striped] Concerning the corpus striatum.

striae, striated (strī'āt, strī'ā-tĕd) [L. *striatus*] Striped; marked by streaks or striae.

striate body The corpus striatum, composed of the cordate and lenticular nuclei of the brain.

striation (strī-ā'shūn) [L. *striatus*, striped] 1. State of being striped or streaked. 2. Stria.

striatum (strī-ā'tūm) [L., grooved] Corpus striatum.

stricture (strĭk'chūr) [LL. *strictura*, contraction] A narrowing or constriction of the lumen of a tube, duct, or hollow organ such as the esophagus, ureter, or urethra. Strictures may be congenital or acquired. Acquired strictures may result from infection, trauma, fibrosis due to mechanical or chemical irritation, muscular spasm, or pressure from adjacent structures or tumors. They may be temporary or permanent, depending on the cause.

annular s. Ringlike obstruction of an organ involving the entire circumference of a structure.

anorectal s. A fibrotic narrowing of the anorectal canal.

bride s. A stricture caused by a band of membrane stretched across a tube, partially occluding it.

cicatrical s. A stricture resulting from a scar or wound.

functional s. A stricture caused by muscular spasm.

impermeable s. A stricture closing the lumen of a tube or canal so that an instrument cannot pass through it.

irritable s. A stricture causing pain when an instrument is passed.

s. of the urethra Partial or complete narrowing of the urethra, occurring most commonly in men. The condition is

marked by straining to pass urine, esp. at the commencement of urination. It is caused by spasm of the urethral muscle, congestion of the urethra, and fibrous formation.

strictureplasty (strĭk'chĭr-plă'stē) [ʹ + ʹ] A surgical technique for treating or opening a bowel blockage used to spare the intestines from surgical removal (e.g., in managing Crohn's disease).

strictureotomy (strĭk'chūr-ōt'ō-mē) The operation of cutting strictures of the urethra.

stride length The length of the step taken during ambulation; useful in the assessment of a neuromuscular disease that affects only one leg.

strident (strĭ'dēnt) Stridulous.

stridor (strĭ'dor) [L., a harsh sound] A high-pitched, harsh sound occurring during inspiration, often heard without the use of a stethoscope. It is a sign of upper airway obstruction, which may indicate the presence of a life-threatening condition (e.g., epiglottitis). The lack of stridor should never be interpreted as a sign that the upper airway is patent in the patient with signs of having difficulty breathing.

congenital laryngeal s. Stridor present at birth or occurring during the first weeks or months of life.

s. dentium The noise from grinding of the teeth. SEE: *bruxism*.

s. serraticus A sound of respiration similar to that of sawing, produced by the patient's tracheostomy tube.

stridulous (strĭd'ū-lūs) [L. *stridulus*] Making a shrill, grating sound. SYN: *strident*.

string-of-pearls deformity Fusiform enlargement of the proximal and middle phalanges, seen in rickets.

string sign In gastrointestinal radiology, extreme narrowing of a segment of the terminal ileum (in Crohn's disease) or of the pylorus (in congenital pyloric stenosis).

string test A test formerly used to diagnose intestinal infection with *Giardia lamblia*, in which a string is swallowed, then removed, and examined for parasites.

strip (strĭp) [AS. *stripan*, to plunder] **1.** To remove all contents from a hollow organ or tube, esp. by gentle pressure, as to strip the seminal vesicles. **2.** A long slender band of tissue, e.g., one removed surgically for transplantation elsewhere in the body.

stripper A surgical instrument used to remove veins, tendons, or periosteum.

strobila (strō-bĭ-lā) [Gr. *strobilos*, anything twisted up] The series of proglottids of the adult form of a tapeworm.

strobiloid (strō'bĭ-loyd) [ʹ + *eidōs*, form] Resembling a chain of tapeworm segments.

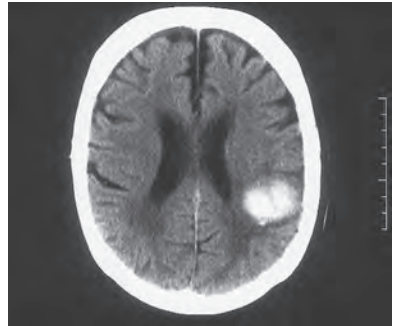
stroboscope (strō'bō-skōp) [Gr. *strobos*,

whirl, + *skopein*, to examine] A device that produces light intermittently. When the light is shown on moving or vibrating objects, the object appears to be stationary. A photograph taken at the precise time the light is flashed on the object will not be blurred.

stroboscopy The analysis of movements with a periodically flickering light source.

strobvideolaryngoscopy (strō'bō-vid-ē-ō-lār'ĭnj-ōs-kō-pē) The use of a stroboscope in video recordings of diseases of the larynx and vocal cords.

stroke (strōk) [ME.] **1.** A sudden loss of neurological function, caused by vascular injury (loss of blood flow) to an area of the brain. Stroke is both common and deadly: about 700,000 strokes occur in the U.S. each year. Stroke is the third leading cause of death in the U.S. Because of the long-term disability it often produces, stroke is the disease most feared by older Americans. In the U.S., 80% of strokes are caused by cerebral infarction (i.e., blockage of the carotid or intracerebral arteries by clot or atherosclerosis); intracranial hemorrhage and cerebral emboli are responsible for most other strokes. Innovations in the management of stroke (e.g., in prevention, the early use of thrombolytic drugs, vascular ultrasonography, and endarterectomy) have revolutionized the acute and follow-up care of the stroke patient. SYN: *apoplexy*; *attack*, *brain*; *cerebrovascular accident*. SEE: *carotid endarterectomy*; *intracranial hemorrhage*; *transient ischemic attack*; *illius*.



HEMORRHAGIC STROKE

Bleeding into the brain, seen on noncontrast head CT (Courtesy of Harvey Hatch, MD, Curry General Hospital)

ETIOLOGY: Risk factors for stroke include advanced age (esp. older than 65 years), atherosclerosis of the aortic arch, atrial fibrillation, carotid artery disease, cigarette use, excessive alcohol use (more than 5 drinks daily), heart failure, hyperlipidemia, hypertension, a history of myocardial infarction, diabe-

tes mellitus, male gender, close relation of someone who has had a stroke, non-white race, peripheral vascular disease, physical inactivity, obesity, using combination hormonal contraception (the pill, ring, patch), being pregnant or immediately postpartum, or a recent transient ischemic attack.

SYMPTOMS: The National Institute of Neurological Disorders and Stroke lists the following symptoms as warning signs of stroke: sudden weakness or numbness of the face, arm, or leg; sudden loss of vision, double vision, dimming of vision in one or both eyes; sudden difficulty speaking or understanding speech; sudden severe headache; and sudden falling, gait disturbance, or dizziness. The patient who experiences these problems should call 911 immediately. If symptoms disappear in a few minutes, the individual may have experienced a transient ischemic attack (TIA [informally known as a "ministroke" or a "warning stroke"]) and should notify his/her primary care provider immediately for preventive care. In clinical practice, stroke patients often present with more than one stroke symptom (e.g., limb paralysis and aphasia; severe headache and hemibody deficits). It is also important to note that these symptoms are not specific for stroke: sudden dizziness or gait disturbance can occur as a result of intoxication with drugs or alcohol, for example, and sudden severe head pain can result from cluster headache, migraine, and many other disorders.

TREATMENT: Acute ischemic stroke can be treated with recombinant tissue plasminogen activator (rt-PA) if the disease is recognized in the first 90 to 180 min and intracerebral hemorrhage has been excluded with urgent computed tomography (CT) or magnetic resonance imaging (MRI) scanning of the brain. This form of therapy is not without risk; thrombolytic drugs can reduce the potential for long-term disability and death by 20%, but increase the risk of hemorrhage. Hemorrhagic strokes, which have about a 50% mortality, can sometimes be treated by evacuating blood clots from the brain or by repairing intracerebral aneurysms.



Patients with hemorrhagic stroke should never receive fibrinolytic drugs. Other contraindications to fibrinolysis in stroke include recent or active bleeding or a known propensity for abnormal bleeding; recent lumbar puncture; recent arterial puncture; recent myocardial infarction; recent surgery or major trauma; seizure at the onset of the stroke; or blood pressure over 185/110 that does not improve with simple therapies.

PATIENT CARE: *Acute phase:* The health care team performs a history and physical assessment, including a careful examination of airway, breathing, circulation, and neurological functions. The Glasgow Coma Scale should be used to assess level of consciousness. The severity of a stroke should be assessed with a valid scale, such as the National Institute's of Health Stroke Scale (NIHSS) or other well-publicized assessment tools. Staff provides oxygen by nasal cannula, establishes venous access via two large-bore catheters, and infuses saline intravenously; obtains blood samples for complete blood count, blood glucose, electrolytes, and coagulation studies; and obtains a 12-lead ECG and initiates cardiac monitoring. The stroke team, neurologist, radiologist, and MRI and/or CT technician are alerted. Fever and hyperglycemia are treated aggressively because elevated body temperatures and elevated blood glucose levels have been linked to poorer outcomes. Blood pressure is gently controlled to a level less than 180/110: more aggressive pressure control may be hazardous. The patient is positioned in the lateral or semiprone position with the head elevated 15 to 30 degrees to decrease cerebral venous pressure. Neurological status is monitored for signs of deterioration or improvement, and findings are documented on a flow sheet. The National Institute of Neurological Disorders and Stroke (NINDS) suggests the following order of assessment in patients with suspected stroke: level of consciousness, eye movements, visual fields, facial movements, motor function of arms and legs, limb coordination, sensory responses, and language use including clarity of speech. A history of the incident is obtained, including how and when symptoms started. Past medical history should be reviewed (hypertension, use of anticoagulant drugs, cardiac dysrhythmias). The patient is prepared for prescribed diagnostic studies, including MRI and/or CT, and possibly arteriography.

The patient is oriented frequently and reassured with verbal and tactile contacts. Attention is focused on determining the patient's candidacy for emergent use of thrombolytic therapy. If potential benefits are established, recombinant tissue plasminogen activator (rt-PA) is administered intravenously over 60 min, with 10% of the determined dosage as a bolus in the first 60 sec. Blood pressure is monitored closely once the infusion is started, and any elevation treated aggressively. The patient also is monitored for indications of systemic bleeding (tachycardia, tachypnea, hypotension or acute hypertension, rapid

mental status deterioration, severe headache, and nausea and vomiting). When rt-PA administration is complete, the patient is transferred to the neurologic ICU or neurology unit. If clot-busting drugs cannot or should not be administered, monitoring and supportive care is provided. The ability to speak is assessed, and if aphasia is present, a consultation by a speech therapist is obtained. Bladder function is assessed; noninvasive measures are used to encourage voiding in the presence of urinary retention, voiding pattern is determined, and the incontinent patient is kept clean and dry. Use of indwelling catheters is limited because these promote urinary tract infection. Bowel function is assessed, and dietary intervention and stool softeners or laxatives as necessary are used to prevent constipation. Straining at stool or use of enemas is avoided. Fluid and electrolyte balance (intake, output, daily weight, laboratory values) is monitored and maintained. Adequate enteral or parenteral nutrition is provided as appropriate. Nursing measures are instituted to prevent complications of immobility. In consultation with occupational therapists and physical therapists, a program of positioning and mobility is initiated, as appropriate. Examples of activities include repositioning at least every 2 hr, maintaining correct body alignment, supporting joints to prevent flexion and rotation contractures, and providing range-of-motion exercises (passive to involved joints, active-assisted or active to uninvolved joints). Irrigation and lubrication prevent oral mucous membranes and eyes (cornea) from drying. Prescribed medical therapy is administered to decrease cerebral edema, and antihypertensives or anticoagulants are given as appropriate for etiology. The patient is observed for seizure activity, and drug therapy and safety precautions are initiated. Most stroke patients are hospitalized for a few days. Patient education about risk modification begins prior to discharge.

Rehabilitative phase: After the acute phase of stroke, rehabilitation goals depend on the severity of the patient's deficit, the age of the patient, the presence of comorbidities and prior functional status, his or her ability to perform activities of daily living independently, and the family and social support systems available. The rehabilitation program will consist of various types of exercises, including neuromuscular retraining, motor learning and motor control, and functional activities that emphasize relearning or retraining in basic skills required for self-care. This may include instruction in the use of adaptive and supportive devices to fa-

cilitate independence in daily tasks. The goal of rehabilitation is to achieve an optimal functional outcome that will allow the patient to be discharged to the least restrictive environment. Ideally, the patient will achieve sufficient independence to return to community living, either independently or with family and community support.

All patient efforts should receive positive reinforcement. Patient communication is a priority. Exercises, proper positioning, and supportive devices help to prevent deformities. Quiet rest periods are provided based on the patient's response to activity. The patient should either assist with or perform own personal hygiene and establish independence in other activities of daily living. The rehabilitation team evaluates the patient's ability to feed self and continues to provide enteral feeding as necessary. A bowel and bladder retraining program is initiated, and both patient and family receive instruction in its management. Both patient and family are taught about the therapeutic regimen (activity and rest, diet, and medications), including desired effects and adverse reactions to report. Emotional lability, a consequence of some strokes, is recognized and explained, and assistance is provided to help the patient deal with changes in affect.

NOTE: The best results are achieved by patients treated in specialized treatment centers with demonstrably low complication rates. All stroke patients are advised to reduce their risk for future stroke by taking prescribed antihypertensive drugs as directed; losing excess weight; exercising regularly; eating a well-balanced diet low in fat, cholesterol, sugar, and salt; stopping smoking; limiting alcohol intake; and maintaining glycemic control. Patient and family are referred to the American Stroke Association or local stroke groups for information and support (<http://www.strokeassociation.org>).

2. To rub gently in one direction, as in massage. **3.** A gentle movement of the hand across a surface. **4.** In dentistry, a complete simple movement that is often repeated with modifications of position, strength, or speed, perhaps as a part of a continuing activity; e.g., the closing stroke in mastication when the jaw closes and the teeth come together. In scaling or planing the roots of teeth, the scaling instrument is introduced carefully into the subgingival area in what is called an exploratory stroke, perhaps followed by a power stroke designed to break or dislodge encrusted calculus. This is followed by a shaving stroke, intended to smooth or plane the root surface. **5.** A sharp blow.

ischemic s. A stroke caused by di-

minished blood flow to a particular artery in the brain, e.g., as a result of a clot in the artery or an embolus lodging in the artery. Ischemic stroke is much more common than hemorrhagic stroke.

lacunar s. A pathological change in the brain caused by diminished or no blood flow through one of the brain's small penetrating arteries. When this occurs, there may be no clinically detectable changes in the patient or signs and symptoms of stroke. A group of little strokes may cause progressive dementia.

mini-s. A colloquial and imprecise term for a transient ischemic attack.

paralytic s. A stroke that produces loss of muscular functions.

Stroke Impact Scale An instrument used to measure the effect of a stroke on a person's mobility, speech, social activities, manual dexterity, strength, emotions, memory, and daily activities.

stroke volume variability ABBR: SVV. Changes in the amount of blood ejected from the left ventricle into the aorta with each heartbeat. Stroke volume variability measurements may be used to assess the autonomic responsiveness or preload of critically ill patients during a ventilator breath.

stroking **1.** A massage technique of moving the hand over the body surface, used to facilitate relaxation and improve flow of tissue fluids. **2.** A technique of slow tactile stimulation over the posterior primary rami, used to inhibit muscle responses and promote relaxation during neuromotor rehabilitation.

stroma (strō'mā) *pl.* **stromata** [Gr., bed covering] **1.** Foundation-supporting tissues of an organ. The opposite of parenchyma. **2.** The membranous lipid-protein framework within a red blood cell to which hemoglobin molecules are attached. **stromal, stromatic, adj.**

stromatolysis (strō'mā-tōl'ī-sīs) [*l* + *lysis*, dissolution] Destruction of the stroma of a cell.

stromatosis (strō'mā-tō'sīs) [*l* + *osis*, condition] The presence of mesenchymal (structural) tissue infiltrating the uterine endometrium. Contrast with the term adenomyosis.

stromelysin (strō'mā-līs-īn) ABBR: MMP-3. Member of the matrix metalloproteinase family of enzymes that plays a major role in the degradation of proteoglycans, gelatin, and other constituents of the extracellular matrix. Two forms of stromelysin have been described, stromelysin-1 and -2. Stromelysin-1 degrades proteoglycans, gelatin, fibronectin, laminin, collagen types III, IV, IX, and X. Stromelysin-2 degrades proteoglycans, fibronectin, laminin, and collagen type IV.

strong (strawng) **1.** Potent. **2.** Concentrated. **3.** Biologically or chemically ac-

tive; said, e.g., of acids, bases, electrolytes, and muscle tissue.

strong dominance In health care management any strategy that provides a more effective and less costly solution to a problem.

Strong Interest Inventory ABBR: SII. A psychological test that traditionally measures vocational interests but also identifies personality traits. Previous versions (the original was developed in 1927) were known as the Strong Vocational Interest Bank.

Strongyloides (strōn'jī-loi'dēz) A genus of roundworms that infect humans.

S. stercoralis A roundworm that causes gastrointestinal infections (primarily in persons from developing nations) and opportunistic infections (in immunosuppressed patients). It may occasionally be life-threatening. In the U.S., *S. stercoralis* is found mainly in the rural South. The ova hatch in the intestines of the host, and rod-shaped larvae are passed in the stool. In the soil, these may develop into adults and continue their life cycle or may metamorphose into filariform larvae that can infect humans. The filariform larvae enter the skin, pass through the venous system to the lungs, where they migrate upward and are swallowed. A rash or pneumonia may accompany their migration. The larvae mature in the intestine, and ova of the next generation hatch. The rod-shaped larvae may metamorphose into the filariform larvae in the intestine. These may enter the circulation, migrate to the lungs, and begin the cycle again.

Such auto-infection may be sufficient to cause overwhelming systemic infection with fever, severe abdominal pain, shock, and possibly death. Severe reactions are more likely to occur in immunosuppressed patients. The diagnosis is made by finding larvae in the patient's feces. Thiabendazole and mebendazole are the drugs of choice. Repeated courses of treatment may be required.

strongyloidosis (strōn'jī-loi-dō'sīs) [Gr. *strongylos*, compact, + *osis*, condition] Infestation with organisms of the genus *Strongyloides*.

strongylosis (strōn'jī-lō'sīs) Infestation with organisms of the genus *Strongylus*.

Strongylus (strōn'jī-lūs) A genus of nematodes; the several species usually parasitize horses.

strontium (strōn'shē-ūm) [Strontian, mining village in Scotland] SYMB: Sr. A dark yellow metal; atomic weight, 87.62; atomic number, 38; specific gravity, 2.6. Medically it is of interest because its radioactive isotope ⁹⁰Sr constitutes a radioactive hazard in fallout from atom bombs. The isotope has a half-life of 28 years and is stored in bone when ingested.

Strophanthus (strō-fān'thūs) [Gr. *strophos*, twisted cord, + *anthos*, flower] A genus of plants yielding a poisonous, white, crystalline glucoside, previously used as a heart stimulant.

strophocephaly (strōf'ō-sēf'ā-lē) [" + *kephale*, head] Distortion of the head and face resulting from a developmental anomaly.

structural integration Rolfing.

structure (strūk'shūr) The composition and arrangement of the component parts of an organism or a device.

struma (stroo'mā) [L. *struma*, a mass] Goiter.

cast iron s. Riedel's s.

s. lymphomatosa A rare condition involving a diffuse and extensive infiltration of the entire thyroid gland.

s. maligna Carcinoma of the thyroid gland.

s. ovarii A form of ovarian teratoma in which the mass is composed of typical thyroid follicles filled with colloid.

Riedel's s. A form of chronic thyroiditis in which the gland becomes enlarged, hard, and adherent to adjacent tissues. The follicles become atrophic and fibrosis occurs. SYN: *cast iron struma*.

strumectomy (stroo-mēk'tō-mē) [" + *ektome*, excision] The removal of a goiter.

strumitis (stroo-mī'tis) [" + Gr. *itis*, inflammation] Thyroiditis.

Strümpell's disease (strīm'pēlz, stroom', shtrüm') Ankylosing spondylitis.

Strümpell-Marie disease (strüm'pīl-mār'ē, shtrüm', -mā-rē') [Adolf G. G. von Strümpell, Ger. physician, 1853–1925; Pierre Marie, Fr. neurologist, 1853–1940] Ankylosing spondylitis.

Strümpell's sign (strīm'pēls) Dorsiflexion of the foot when the thigh is flexed on the abdomen. This sign may be associated with spastic paralysis of the leg.

strut (strüt) [probably fm. AS. *strutian*, to struggle] A support that stabilizes a structure.

struvite (strū'vīt) Magnesium ammonium phosphate crystals, important in health care because they cause about 15% of all kidney stones. They are formed in the urinary tract in conjunction with some bacterial infections, such as infection with *Proteus mirabilis*, and in some patients with hypercalciuria.

strychnine (strīk'nīn, -nēn, -nīn) [Gr. *strychnos*, nightshade] A poisonous alkaloid, used to kill rodents, that may produce nausea and vomiting, symmetrical muscle spasms, fever, muscle breakdown (rhabdomyolysis), and renal failure. It has no therapeutic usefulness but has been used as an experimental tool in neuropharmacology.

s. poisoning SEE: under *poisoning*.

strychninism (strīk'nīn-izm) [" + *-is-*

mos, condition] Chronic strychnine poisoning.

Stryker frame (strī'kēr) A device that supports two rectangular pieces of lightweight but strong material so that one side is on the anterior surface of the patient and the other is on the posterior surface. The patient is sandwiched firmly between the pieces of material. The device may be rotated around the patient's long axis. This permits turning the patient without his or her assistance. After a turn is completed, the uppermost portion of the frame can be moved away from the patient. SEE: *illus.*

Stryker's saw An electric-powered oscillating saw that cuts through bone or dense tissue with minimal damage to the underlying soft tissues.

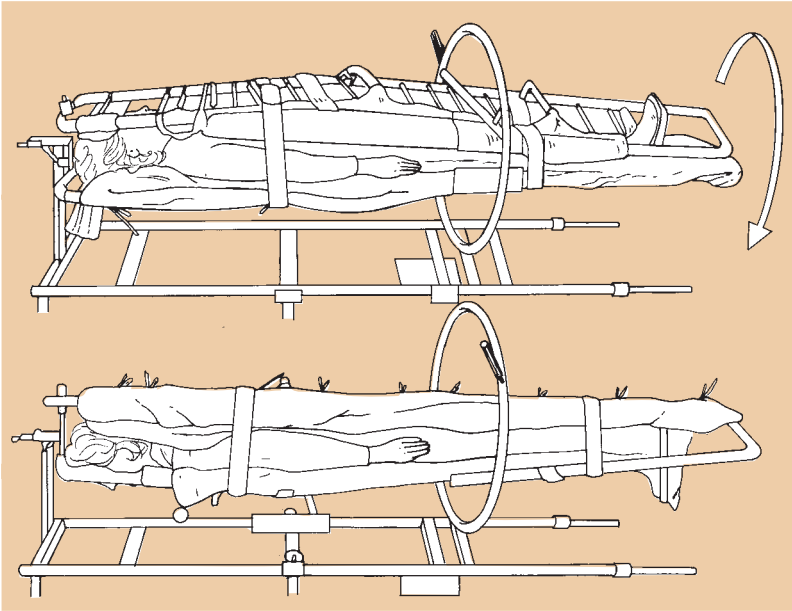
STS *serological test for syphilis*.

STU *skin test unit*.

stucco keratosis Benign papules, typically found on the lower extremities, histologically related to seborrheic keratoses (which are also benign lesions).

study, case-control In epidemiology and medical research, an investigative technique in which cases are selected for study on the basis of the dependent variable, i.e., the presence (study group) or absence (control group) of the condition or disease being investigated. Differences in the rates of the factor, trait, exposure, characteristic, or possible cause (independent variables) are then compared between the two groups. For example, a study might involve two groups of patients from the same population—one that has cancer (study group) and one that does not have cancer (control group). The smoking rates in these otherwise similar groups could then be compared to see if exposure to cigarettes differed between them. It is important to remember that case-control studies cannot prove causation but can only suggest associations between the variables. Because this type of study is retrospective, there is no way to control for bias in the study from differential reporting between the groups, nor to match the two groups as closely as would be necessary to exclude possible confounding factors.

study, nerve conduction ABBR: NCS. An electrodiagnostic test used to determine whether the conduction of impulses along specific nerves is normal or pathologically slowed. In the test an electrical shock is given to a nerve that controls a particular muscle. The time required for the muscle to contract and the distance the electrical stimulus has to travel along the nerve are recorded. In patients with neuropathies, the expected velocity of impulse conduction will not be met; slowing will be evident. Patients with cut or injured nerves will



STRYKER FRAME

show maximal slowing of impulse conduction.

study, prospective A scientific investigation that collects data as they accumulate and analyzes the results after they have accrued. Prospective studies in which both the investigators and the research subjects are unaware of treatment assignments are considered among the most meaningful in health care.

study, retrospective A research project that collects data and draws conclusions from events that have already occurred.

study, role delineation ABBR: RD study. A document that describes those tasks that are critical for competent job performance, by identifying the minimum amount of knowledge and skills required to perform job-related functions. RD study results are often used to develop certification and licensing examinations in the health professions.

stump The distal portion of an amputated extremity.

stun (stūn) [O.Fr. *estoner*, a blow] To render unconscious or stupefied by a blow.

stupe (stūp) [L. *stupa*, tow] A counter-irritant for topical use, prepared by adding a small amount of an irritant such as turpentine to a hot liquid.

stupor (stū'por) [L., numbness] A state of altered mental status (decreased responsiveness to one's environment) in

which a person is arousable only with vigorous or unpleasant stimulation.

stuporous, *adj.*

epileptic s. Postictal confusion or drowsiness that sometimes follows a seizure.

Sturge-Weber syndrome (stūrj'wēb'ēr) [William Sturge, Brit. physician, 1850–1919; Frederick Parkes Weber, Brit. physician, 1863–1962] A congenital neurocutaneous syndrome (technically a “phocomatosis”) marked by port-wine nevi along the distribution of the trigeminal nerve, angiomas of leptomeninges and choroid, intracranial calcifications, mental retardation, seizures, and glaucoma. SYN: *nevroid amentia*.

stuttering (stūt'ēr-ing) [ME. *stutten*, to stutter] A disruption in the fluency of speech in which affected persons repeat letters or syllables, pause or hesitate abnormally, or fragment words when attempting to speak. The symptoms are exaggerated during times of stress, and may also be worsened by some medications, some strokes, or other diseases and conditions. Stuttering often occurs in more than one family member. SYN: *stammering*.

This condition occurs in approx. 1% to 2% of the school population. Boys are affected three or four times as often as girls. The onset is in two periods: between the ages of 2 and 4 years when speech begins and between 6 and 8 years of age when the need for language

increases. It usually resolves spontaneously by adulthood.

Therapies, including relaxation techniques, hypnosis, delayed auditory feedback, and medications such as haloperidol can provide some help.

Educational materials are available from the Stuttering Foundation of America (800-992-9392) and from the American Speech-Language-Hearing Association (800-638-8255).

acquired s. The sudden appearance of stuttering in a person over age 10 with no previous history of an articulation disorder. It may occur after a stroke, after the administration of certain drugs (e.g., theophylline), as an affection, or as a reaction to unusually stressful circumstances.

sty, styte (stī) *pl. sties pl. styes* [AS. *stigan*, to rise] A localized inflammatory swelling of one or more of the glands of the eyelid. They are mildly tender, and may discharge some purulent fluid. SEE: *chalazion*.

SYMPTOMS: General edema of the lid, pain, and localized conjunctivitis mark the condition. As the internal sty progresses, an abscess will form that can be seen through the conjunctiva.

TREATMENT: Applying warm, moist compresses to the eyelid several times a day for 4 or 5 days usually helps the sty drain. If the sty does not resolve, it can be incised and drained surgically. SYN: *hordeolum*.

meibomian s. An inflammation of a meibomian gland.

zeisian s. An inflammation of one of the Zeis's glands.

stylet, stylette (stī-lēt') [Fr. *stilette*] **1.** A small, sharp-pointed instrument for probing. **2.** A wire used to pass through, stiffen or clear a cannula or catheter.

styliiform (stī'li-form) [" + L. *forma*, form] Long and pointed.

styloglossus (stī-lō-glōs'ūs) [Gr. *stylos*, pillar, + *glossa*, tongue] A muscle connecting the tongue and styloid process that raises and retracts the tongue.

stylohyal (stī'lō-hī'āl) [" + *hyooides*, hyoid] Stylohyoid.

stylohyoid (stī-lō-hī'oyd) [" + *hyooides*, hyoid] Pert. to the styloid process of the temporal and hyoid bones. SYN: *stylohyal*.

stylohyoideus (stī'lō-hī-oyd'ē-ūs) A muscle having its origin on the styloid process and its insertion on the hyoid bone. It draws the hyoid bone upward and backward.

styloid (stī'loyd) [" + *eidōs*, form, shape] Resembling a stylus or pointed instrument.

styloiditis (stī'loyd-ī'tīs) [" + " + *itis*, inflammation] Inflammation of a styloid process.

stylomandibular (stī'lō-mān-dīb'ū-lar) [" + L. *mandibula*, lower jawbone]

Concerning the styloid process of the temporal bone and mandible.

styломastoid (stī'lō-mās'toyd) [" + *mastos*, breast, + *eidōs*, form, shape] Concerning the styloid and mastoid processes of the temporal bone.

stylopharyngeus (stī'lō-fār-in'jē-ūs) [" + *pharynx*, throat] The muscle connecting the styloid process and the pharynx that elevates and dilates the pharynx.

stylosteophyte (stī-lōs'tē-ō-fit) A peg-shaped outgrowth from bone.

stylus (stī'lūs) [Gr. *stylos*, a pillar] **1.** A probe or slender wire for stiffening or clearing a canal or catheter. **2.** A pointed medicinal preparation in stick form for external application (e.g., silver nitrate). **3.** A pointed writing instrument.

stypsis (stīp'sīs) [Gr. *styphein*, to contract] Astringency or the use of an astringent.

styptic (stīp'tik) [Gr. *styptikos*, contracting] **1.** Contracting a blood vessel; stopping a hemorrhage by astringent action. **2.** Anything that stops a hemorrhage such as alum, ferrous sulfate, or tannic acid. SYN: *astringent*; *hemostat*.

sub- [L. *sub*, under, below] Prefix meaning *under, beneath, in small quantity, less than normal*. SEE: *hypo-*.

subacetate (süb-äs'ë-tāt) [" + *acetum*, vinegar] A basic acetate.

subacid (süb-äs'id) [" + *acidus*, sour] Moderately acid.

subacute (süb'ä-küt') [" + *acutus*, sharp] Between acute and chronic, said of the course of a disease or of the healing process that develops at a moderate, rather than a slow or fast pace.

subarachnoid (süb'ä-räk'noyd) [" + Gr. *arachne*, spider, + *eidōs*, form, shape] Below or under the arachnoid membrane and above the pia mater of the covering of the brain and spinal cord.

subareolar (süb'ä-rē'ō-lär) [" + *areola*, a small space] Below the areola.

subastringent (süb'äs-trin'jënt) [" + *astringere*, to bind fast] Mildly astringent.

subatomic (süb'ä-töm'ik) [" + Gr. *atomos*, indivisible] Less than the size of an atom.

subaxillary (süb-äk'sī-lēr'ē) [" + *axilla*, armpit] Below the axilla, or armpit.

subcalcarine (süb-käl'kär-in) [" + *calcar*, spur] Below the calcarine sulcus of the brain.

subcapsular (süb-käp'sü-lär) [" + *capsula*, little box] Beneath, below, or within a capsule.

subcarbonate (süb-kär'bō-nāt) [" + *carbo*, carbon] A basic carbonate; one having a proportion of carbonic acid radical less than the normal carbonate.

subchondral (süb'kōn'dräl) [" + Gr.

chondros, cartilage] Below or under a cartilage.

subchoroidal (sŭb'kō-roj'dāl) [ʹ + Gr. *chorioeides*, skinlike] Below the choroid.

subchronic An imprecise term meaning "of intermediate duration."

subclass (sŭb'klās) In taxonomy, a category between a class and an order.

subclavian (sŭb-klā'vē-ān) [ʹ + *clavis*, key] **1.** Under the clavicle or collarbone. **2.** Pert. to the artery or vein that run beneath the collarbone (the subclavian artery or vein).

subclavian steal syndrome The clinical consequences of shunting blood from the vertebrobasilar artery, usually on the left side, around an occluded subclavian artery on that side, and into the left arm.

SYMPTOMS: The affected person often experiences numbness or weakness of the arm when he or she tries to use it. In some people, the diversion of blood from the brain into the arm results in signs and symptoms of brainstem ischemia or stroke, such as loss of consciousness. On physical examination, a bruit may be heard over the obstructed subclavian artery, and the blood pressure in the arm on the affected side will be lower than in the unaffected arm.

TREATMENT: The subclavian artery may be surgically bypassed or opened with angioplasty.

subclavian vein A large vein draining the arm. It unites with the internal jugular vein to form the brachiocephalic (innominate) vein.

subclavicular (sŭb'klā-vīk'ŭ-lār) [L. *sub*, under, below, + *clavicula*, little key] Subclavian.

subclavius (sŭb-klā'vē-ŭs) [ʹ + *clavis*, key] A tiny muscle from the first rib to the undersurface of the clavicle.

subclinical (sŭb-klīn'ī-kāl) [ʹ + Gr. *klinikos*, pert. to a bed] Pert. to a period before the appearance of typical symptoms of a disease or to a disease or condition that does not present clinical symptoms. Mildly increased or decreased levels of thyroid hormone in the body often present subclinically.

subconjunctival (sŭb'kōn-jŭnk-tī'vāl) [ʹ + *conjungere*, to join together] Beneath the conjunctiva.

subconsciousness (sŭb-kōn'shŭs-nēs) [ʹ + *consciūs*, aware] The condition in which mental processes take place without the individual's being aware of their occurrence. SEE: *subliminal*.

subcontinuous (sŭb'kōn-tīn'ŭ-ŭs) [ʹ + *continere*, to hold together] Almost continuous; with periods of abatement.

subcortical (sŭb-kor'tī-kāl) Pert. to the region beneath the cerebral cortex.

subcranial (sŭb-krā'nē-āl) [ʹ + Gr. *kranion*, skull] Beneath or below the cranium.

subcrepitant (sŭb-krēp'ī-tānt) [ʹ + *cre-*

pitare, to rattle] Partially crepitant or crackling in character; noting a rale.

subculture (sŭb-kŭl'chŭr) [ʹ + *cultura*, tillage] **1.** To make a culture of bacteria with material derived from another culture. **2.** A relatively cohesive group of individuals living within a society, who, because of shared traditions, customs, socioeconomic status, or genetic heritage, may be predisposed to particular states of health or illness.

subculturing (sŭb-kŭl'chŭr-īng) [ʹ + ʹ] The growing and replacing of cells in tissue culture for many months.

subcutaneous (sŭb'kŭ-tā'nē-tīs) [ʹ + *cutis*, skin] Beneath the skin. SYN: *hypodermic*.

subcutaneous surgery An operation performed through a small opening in the skin.

subcuticular (sŭb'kŭ-tīk'ŭ-lār) [L. *sub*, under, below, + *cuticula*, little skin] Subepidermal.

subcutis (sŭb-kŭ'tīs) The layer of connective tissue beneath the skin.

subdeltoid (sŭb-dēl'tōyd) [ʹ + Gr. *delta*, letter d, + *eidos*, form, shape] Beneath the deltoid muscle.

subdental (sŭb-dēn'tāl) [ʹ + *dens*, tooth] Beneath the teeth or a tooth.

subdermal (sŭb-dēr'māl) [ʹ + Gr. *derma*, skin] Below the skin.

subdiaphragmatic (sŭb'dī-ā-frāg-māt'īk) [ʹ + Gr. *diaphragma*, a partition] Beneath the diaphragm.

subduct (sŭb-dŭkt') [ʹ + *ducere*, to lead] To draw down.

subdural (sŭb-dŭ'rāl) [ʹ + *durus*, hard] Beneath the dura mater.

subendothelial, **subendothelium** (sŭb'ēn-dō-thē'lē-āl, sŭb'ēn-dō-thē'lē-ŭm) [ʹ + Gr. *endon*, within, + *thele*, nipple] Beneath the endothelium.

subepidermal (sŭb'ēp-i-dēr'māl) [ʹ + Gr. *epi*, upon, + *derma*, skin] Beneath the epidermis. SYN: *subcuticular*.

subepithelial (sŭb'ēp-i-thē'lē-āl) [ʹ + ʹ + *thele*, nipple] Beneath the epithelium.

suberosis (sŭ'bēr-ō'sīs) [L. *suber*, cork, + Gr. *osis*, condition] Pulmonary hypersensitivity reaction in workers exposed to cork. The antigen is present in a mold in the cork.

subfamily (sŭb-fām'ī-lē) In taxonomy, the category between a family and a genus.

subfebrile (sŭb-fē'brīl) [ʹ + *febris*, fever] Having a mildly increased body temperature, usually considered to be less than 101°F (38.3°C).

subfertility (sŭb'fēr-tīl'ī-tē) [ʹ + *fertilis*, fertile] Fertility considered to be less than normal.

subfoveal (sŭb-fō'vē-āl) [ʹ + ʹ] Beneath the fovea of the eye, that is, beneath the central portion of the macula.

subgenus (sŭb-jē'nŭs) In taxonomy, the category between a genus and a species.

subgingival (sŭb-jīn'jī-vāl) [ʹ + *gin-*

- giva, gum*] Beneath the gingiva; rel. to a point or area apical to the margin of the free gingiva, usually within the confines of the gingival sulcus (e.g., subgingival calculus, or the subgingival margin of a restoration).
- subgenoid** (süb-glé'noyd) [ʹ + Gr. *glene*, socket, + *eidos*, form, shape] Below the genoid fossa or genoid cavity.
- subglossal** (süb-glös'äl) [ʹ + Gr. *glossa*, tongue] Sublingual.
- subglossitis** (süb-glös-si'tis) [ʹ + " + *itis*, inflammation] An inflammation of the undersurface or tissues of the tongue.
- subglottic** (süb-glöt'ik) [ʹ + Gr. *glottis*, back of tongue] Beneath the glottis.
- subgranular** (süb-grän'ü-lär) [ʹ + *granulum*, little grain] Not completely granular.
- subgrondation, subgrundation** (süb-grön-dä'shün, -grün-dä'shün) [Fr.] The depression of one fragment of a broken bone beneath the other, as of the cranium.
- subgroup** (süb'groop") In a research study a selected population of patients who share one or more common traits and thus can be distinguished from the rest of the individuals investigated.
- subicular** (sü-bik'ü-lär) Concerning the uncinate gyrus.
- subincision** (süb'in-sizh'ün) The production of a fistula of the penile urethra, which may interfere with conception. It is used for contraception by some primitive groups, esp. Australian aborigines.
- subintimal** (süb-in'ti-mäl) [ʹ + *intima*, innermost] Beneath the intima.
- subinvolution** (süb'in-vö-lü'shün) [L. *sub*, under, below, + *involutio*, a turning into] Imperfect involution; incomplete return of a part to normal dimensions after physiological hypertrophy, as when the uterus fails to reduce to normal size following childbirth. SEE: *uterus*.
- subjacent** (süb-jä'sënt) [ʹ + *jacere*, to lie] Lying underneath.
- subject** (süb'jekt) [L. *subjectus*, brought under] **1.** A patient undergoing treatment, observation, or investigation; this includes a well person participating in a medical or scientific study. **2.** A body used for dissection. **3.** To have a liability to develop attacks of a particular disease. **4.** To submit to a procedure or to the action of another.
- subjective** (süb-jék'tiv) [L. *subjectivus*] Arising from or concerned with the individual; not perceptible to an observer; the opposite of objective.
- subjective well-being** ABBR: SWB. Wellness.
- subjugal** (süb-jü'gäl) [L. *sub*, under, below, + *jugum*, yoke] Below the malar bone or os zygomaticum.
- sublatio** (süb-lä'shē-ō) [L.] Sublation.
s. retinae Detachment of the retina.
- sublation** (süb-lä'shün) [L. *sublatio*, el-
evation] The displacement, elevation, or removal of a part. SYN: *sublatio*.
- sublesional** (süb-lē'shün-äl) [L. *sub*, under, below, + *laesio*, wound] Beneath a lesion.
- sublethal** (süb-lē'thäl) [ʹ + Gr. *lethe*, oblivion] Less than lethal; almost fatal.
- sublimate** (süb'li-mät) [L. *sublimare*, to elevate] **1.** A substance obtained or prepared by sublimation. **2.** To cause a solid or gas to change state without becoming a liquid during transition. For example, ice may evaporate without first becoming a liquid. **3.** An ego defense mechanism by which one converts unwanted aggressive or sexual drives into socially acceptable activities.
- sublimation** (süb'li-mä'shün) [L. *sublimatio*] **1.** The altering of the state of a gas or solid without first changing it into a liquid. **2.** A Freudian term pert. to the unconscious mental processes of ego defense whereby unwanted aggressive or sexual drives find an outlet through creative mental work.
- sublime** (süb-lim') [L. *sublimis*, to the limit] To evaporate a substance directly from the solid into the vapor state and condense it again. For example, metallic iodine on heating does not liquefy but directly forms a violet gas.
- subliminal** (süb-lim'in-äl) [L. *sub*, under, below, + *limen*, threshold] **1.** Below the threshold of sensation; too weak to arouse sensation or muscular contraction. **2.** Beneath consciousness.
- subliminal self** In psychoanalytical theory, part of the normal individual's personality in which mental processes function without consciousness, under normal waking conditions.
- sublimis** (süb-li'mis) [L.] Near the surface.
- sublingual** (süb-ling'gwäl) [L. *sub*, under, below, + *lingua*, tongue] Beneath or concerning the area beneath the tongue. SYN: *subglossal*.
- sublinguitis** (süb'ling-gwi'tis) [ʹ + " + Gr. *itis*, inflammation] An inflammation of the sublingual gland.
- subluxation** (süb'lüks-ä'shün) [ʹ + *luxatio*, dislocation] **1.** A partial or incomplete dislocation. **2.** In dentistry, injury to supporting tissues that results in abnormal loosening of teeth without displacement or rotation. When loosely applied to the temporomandibular joint, subluxation refers to the relaxation or stretching of the capsule and ligaments that results in popping noises during movement or partial dislocation of the mandible forward.
- submacular surgery** A treatment for wet macular degeneration consisting of surgical removal of subfoveal choroidal neovascularization and the bleeding that accompanies it.
- submammary** (süb-mäm'ä-rē) [ʹ +

mamma, breast] Below the mammary gland.

submandibular (süb"män-dib'ü-lär) [" + *mandibula*, lower jawbone] Beneath the mandible or lower jaw.

submandibularitis (süb"män-dib'ü-lär-ī'tis) An inflammation of, or mumps affecting, the submandibular gland.

submarginal (süb-mär'jin-äl) [" + *marginalis*, border] Close to or next to a margin or border of a part. In dentistry, pert. to a deficiency in material or contour at the margin of a restoration in a tooth.

submaxillary (süb-mäk'si-lēr"ē) Below the maxilla or upper jaw.

submembranous (süb-mēm'brä-nūs) [" + *membrana*, membrane] Containing partly membranous material.

submental (süb-mēn'täl) [" + *mentum*, chin] Under the chin.

submerge (süb-mēr'j) [" + *mergere*, to immerse] To place under water.

submerged tooth A tooth that is below the plane of occlusion; usually a deciduous tooth retained as a result of ankylosis.

submetacentric (süb"mēt-ä-sēn'trīk) [" + Gr. *meta*, beyond, + *kentron*, center] Concerning a chromosome in which the centromere is within the two central quarters but not precisely centrally located.

submicron (süb-mī'krŏn) [" + Gr. *mikros*, tiny] A particle smaller than 10⁻⁵ cm in diameter, visible only with an ultramicroscope. SEE: *micron*.

submicroscopic (süb"mī-krŏ-skŏp'ik) [" + " + *skopein*, to examine] Too minute to be seen through a microscope.

submucosa (süb'mü-kŏ'sä) [L. *sub*, under, below, + *mucosus*, mucus] The layer of connective tissue below the mucosa. It may vary from areolar to quite dense irregular connective tissue and, in addition to the distributing vessels and nerves, may contain fat, mucous glands, or muscle.

submucous resection Removal of tissue below the mucosa, esp. excision of cartilaginous tissue beneath the mucosal tissue of the nose.

subneural (süb-nū'räl) [" + Gr. *neuron*, nerve] Beneath the neural axis or the central nervous system.

subnormal (süb-nor'mäl) [" + *normalis*, accord. to pattern] Less than normal or average.

suboptimal (süb-ŏp'ti-mäl) [" + *optimus*, best] Less than optimum.

suborbital (süb-or'bi-täl) [" + *orbita*, track] Beneath the orbit.

suborder (süb-or'dēr) In taxonomy, a category between an order and a family.

suboxide (süb-ŏk'sidz) In a series of oxides, one that contains the smallest amount of oxygen.

subpapular (süb-päp'ü-lär) [" + *papula*, pimple] Very slightly papular,

such as papules elevated scarcely more than macules.

subpar (süb"pä'r) [" + L. *par*, equal] Below accepted standards, said, e.g., of poor performance by an employee or institution.

subpatellar (süb"pä-tēl'är) [" + *patella*, a small pan] Beneath the patella.

subperiosteal (süb"pēr-ē-ŏs'tē-äl) [" + " + *osteon*, bone] Beneath the periosteum.

subphrenic (süb-frēn'ik) [" + Gr. *phren*, diaphragm] Subdiaphragmatic.

subphylum (süb-ft'lüm) In taxonomy, the category between a phylum and a class.

subpial (süb-pi'äl) [" + *pia*, soft] Beneath the pia mater.

subplacenta (süb"plä-sēn'tä) [" + *placenta*, a flat cake] During pregnancy, the endometrium that lines the entire uterine cavity except at the site of the implanted blastocyst. SYN: *decidua parietalis*.

subpleural (süb-plū'räl) [" + Gr. *pleura*, side] Beneath the pleura.

subpoena (sü-pē'nä) A court order that requires a person to come to court or appear at a specific time and place to give testimony. Failure to appear can result in punishment by the court.

subpoena duces tecum (sü-pē'nä doo'sēz tē'küm, soob poy'nä dook'ās tā'koom) A process used in litigation that compels the party having control of documents, items, and materials relevant to issues in a lawsuit to produce them at a designated time and place.

subpubic (süb-pū'bik) [" + *pubes*, pubic region] Beneath the pubic arch, as a ligament, or performed beneath the pubic arch.

subretinal (süb-rēt'ī-näl) [" + *rete*, a net] Beneath the retina.

subscapular (süb-skäp'ü-lär) [" + *scapula*, shoulder blade] Below the scapula.

subscleral (süb-sklē'räl) [" + Gr. *sclerosis*, hard] Beneath the sclera of the eye. SYN: *subsclerotic* (1).

subsclerotic (süb-sklē'rŏt-ik) [" + Gr. *skleros*, hard] 1. Subscleral. 2. Not completely sclerosed.

subscription (süb-skrīp'shŭn) [L. *subscriptas*, written under] The part of a prescription that contains directions for compounding ingredients.

subsibilant (süb-sīb'ī-länt) [" + *sibilans*, hissing] Having the sound of a muffled whistle.

subsidence (süb-sid'ēns) [L. *subsidere*, to sink down] The gradual disappearance of symptoms or manifestations of a disease.

subsistence 1. The minimum amount of something essential for life (e.g., a subsistence diet). 2. Any means of barely supporting life.

subspecies (süb'spē-sēz) [L. *sub*, under,

below, + *species*, a kind] In taxonomy, subordinate to a species.

substage (süb'stāj) [*'* + O.Fr. *estage*, position] The part of the microscope below the stage by which attachments are held in place.

substance (süb'stäns) [L. *substantia*]

1. Material of which any organ or tissue is composed; matter. SYN: *substantia*.

2. A chemical or drug. **3.** When used in a medicolegal context, a chemical with potential for abuse. A great variety of entities are included: alcohol, nicotine, caffeine, sedatives, hypnotics, anxiolytics, and illicit drugs such as cannabis, heroin, or methamphetamines. Almost any substance may be abused even though its clinical use is approved when used as prescribed.

anterior perforated s. The portion of the rhinencephalon lying immediately anterior to the optic chiasm. It is perforated by numerous small arteries.

chromophilic s. A substance found in the cytoplasm of certain cells that stains similar to chromatin with basic dyes. It includes Nissl bodies of neurons and granules in serozymogenic cells.

colloid s. Jelly-like substance in colloid degeneration.

ground s. The matrix or intercellular substance in which the cells of an organ or tissue are embedded.

high threshold s. A substance such as glucose or sodium chloride present in the blood and excreted by the kidney only when its concentration exceeds a certain level.

ketogenic s. A substance that, in its metabolism, gives rise to ketone bodies.

low threshold s. A substance such as urea or uric acid that is excreted by the kidney from the blood almost in its entirety. It occurs in the urine in high concentrations.

Nissl s. Nissl body.

posterior perforated s. A triangular area forming the floor of the interpeduncular fossa. It lies immediately behind the corpora mammillaria and contains numerous openings for blood vessels.

pressor s. A substance that elevates arterial blood pressure.

reticular s. The skein of threads present in some red blood cells. These are visible only when the cells are appropriately stained.

substance dependence disorder An addictive disorder of compulsive drug use. It is marked by a cluster of behavioral and physiological symptoms that indicate continual use of the substance despite significant related problems. Patients develop a tolerance for the substance and require progressively greater amounts to elicit the effects desired. In addition, patients experience physical and psychological signs and symptoms of withdrawal if the agent is not used. SEE: *abuse, substance; sub-*

stance-induced disorder; substance-related disorder.

substance-induced disorder A disorder related to drug use but excluding drug dependency. Substance-induced disorders include intoxication, withdrawal, and other substance-induced mental disorders such as delirium and psychosis. SEE: *abuse, substance; substance dependence disorder.*

substance P An 11-amino acid peptide that has important functions in the body's response to pain, noxious stimuli, depression, and anxiety. This substance may also be important in eliciting local tissue reactions resembling inflammation. SEE: *neurotransmitter; pain.*

standardard Unable to meet a generally accepted benchmark for quality.

substantia (süb-stän'shë-ä) [L.] The material of which any organ or tissue is composed; matter. SYN: *substance*.

s. nigra Nuclei of the midbrain that help regulate unconscious muscle activity. SYN: *locus niger*.

s. propria membranae tympani The fibrous middle layer of the drum membrane.

substantivity (süb'stän-tiv'ī-tē) The ability of tissue to absorb an active ingredient and release it slowly over a period of time.

substernal (süb-stër'näl) [L. *sub*, under, below, + Gr. *sternon*, chest] Situated beneath the sternum.

substituent (süb'stī'chū-ënt) One part of a molecule substituted with another atom or group.

substitute (süb'stī-tüt) Something that may be used in place of another.

blood s. An oxygen-carrying fluid that can be used in place of human blood products for transfusion therapy. Candidate substances that have been investigated for this purpose include polymerized hemoglobin and fluorinated hydrocarbons. SYN: *red blood cell substitute*.

red blood cell s. Blood substitute.

substitution (süb-stī-tū'shün) [L. *substitutio*, replacing]

1. Displacing an atom (or more than one) of an element in a compound by atoms of another element of equal valence. **2.** In psychiatry, the ego defense mechanism of turning from an obstructed desire to one whose gratification is socially acceptable. **3.** The turning from an obstructed form of behavior to a more primitive one, as a substitution neurosis. **4.** The replacement of one substance by another. **5.** Drug substitution.

substitution product A compound formed by an element or a radical replacing another element or radical in a compound.

substitution therapy Replacement therapy.

substitutive (süb'stī-tū'tiv) [L. *substitutivus*] Causing a change or substitution of characteristics.

substrate, substratum (süb'strät, süsträ'tüm) [L. *substratum*, to lie under]

1. An underlying layer or foundation.
2. A base, as of a pigment.
3. The substance acted upon, as by an enzyme. SEE: *enzyme*.

substructure (süb'strük-chür) The underlying structure of supporting material.

subsultus (süb-sül'tüs) [L., to leap up] Any tremor, twitching, or spasmodic movement.

subsyndromal (sub'sin-drö'mäl) **1.** Subthreshold. **2.** Having a cluster of symptoms suggesting a particular disease or condition but that do not meet the defined criteria used to make a diagnosis of that disease or condition.

subtarsal (süb-tär'säl) [L. *sub*, under, below, + Gr. *tarsos*, a broad, flat surface] Below the tarsus.

subtentorial (süb'tên-tör'ē-äl) Located beneath the tentorium.

subterminal (süb-tër'mi-näl) [“ + *terminus*, a boundary] Close to the end of an extremity.

subtetanic (süb'të-tän'ik) [“ + Gr. *tetanikos*, suffering from tetanus] Moderately tetanic.

subthalamal (süb'thä-läm'ik) [“ + Gr. *thalamos*, inner chamber] Below the thalamus.

subthalamus (süb-thäl'ä-müs) The portion of the diencephalon lying below the thalamus and above the hypothalamus. SEE: *thalamus*.

subtherapeutic (süb'thër-ü-püt'ik) [“ + “] **1.** Less than adequately treated. **2.** Taking a drug with a blood level below a desired treatment range. Patients using warfarin for atrial fibrillation, for example, have subtherapeutic anticoagulation when their international normalized ratio (INR) is below 2.0.

subtle, subtle (süb'til, sü'tl) [L. *subtilis*, fine] **1.** Very fine or delicate. **2.** Very acute. **3.** Mentally acute or crafty. **4.** Causing injury without attracting attention, as subtle poisons or early symptoms of a disease.

subtotal (söb'töt'il, söb-töt'l) [“ + L. *totalis*, entire] Pert. to surgical procedures in which a portion of an organ, rather than the complete organ, is removed; partial, limited.

subtraction The process by which undesired, overlying structures can be removed from a radiographical image.

subtribe (süb'trib) In taxonomy, the category between a tribe and a genus.

subtrochlear (süb-trök'lë-är) [“ + Gr. *trochileia*, system of pulleys] Beneath the trochlea.

subtypanal (süb-tim-pän'ik) [“ + Gr. *tympanon*, drum] Below the tympanum.

subtype **1.** A gene that has a small mutation in its nucleotide sequence. **2.** An organism that carries or expresses an

allele with a minor variation that distinguishes it from other members of the species.

subtyping (süb'tip-ing) The precise identification of the genetic identity of a microorganism, often using DNA fingerprinting techniques.

subungual, subungual (süb-üng'gwäl, -gwë-äl) [“ + *unguis*, nail] Situated beneath the nail of a finger or toe.

subungual hematoma A collection of blood under the nail as a result of trauma. This condition may be treated by heating the end of a paper clip and then placing its point against the nail, which permits a small hole to be melted painlessly in the nail and allows the trapped blood to escape.

subunit (süb'ü'nit) In chemistry, a portion of a compound that represents a smaller part of the molecule than the remainder of the substance. SEE: *beta subunit*.

subvertebral (süb-vër'të-bräl) [“ + *vertebra*, vertebra] Beneath, or on the ventral side of, the vertebral column or a vertebra.

subvitreal (süb-vit'rin-äl) [“ + *vitrina*, vitreous body] Located beneath the vitreous body.

subvolutin (süb'vö-lü'shün) [“ + *volutus*, turning] A method of turning over a flap surgically to prevent adhesions, particularly involving a pterygium of the eye.

succedaneous (sük'së-dä'në-üs) [L. *succedaneus*, substituting] **1.** Acting as a substitute or relating to one. **2.** In dentistry, referring to the secondary or permanent set of teeth, which follows an earlier deciduous set.

succedaneum (sük'së-dä'në-üm) [L. *succedaneus*, substituting] Something that may be used as a substitute.

succimer (sük'si-mër) An oral drug (2,3-dimercaptosuccinic acid) used to remove lead from the body by chelation. It is used primarily to treat children with acute lead intoxication. Its side effects include gastrointestinal upset, skin rashes, and elevated liver function test results. SEE: *acute lead encephalopathy*; *lead poisoning, acute*.



Use of this drug should always be accompanied by identification and removal of the source of the lead exposure.

succinate (sük'si-nät) Any salt of succinic acid.

succinylacetone (sük-sin'il-äs'ï-tön) A potentially toxic by-product of tyrosine metabolism. It accumulates in excessive concentrations in the blood of patients with type 1 tyrosinemia and is responsible for some of the symptoms of the disease.

succorhea (sük-kö-rë-ä) [L. *succus*,

juice, + Gr. *rhoia*, flow] An unnatural increase in the secretion of any juice, esp. of a digestive fluid.

succus (sük'kü's) *pl. succi* [L. *succus*, juice] A juice or fluid secretion.

s. entericus Intestinal juice.

s. gastricus Gastric juice.

suction (sü-küsh'ün) [L. *succussio*, a shaking] The shaking of a person to detect the presence of fluid in the body cavity by listening for a splashing sound, esp. in the thorax.

suck [AS. *sucan*, to suck] **1.** To draw fluid into the mouth, as from the breast. **2.** To exhaust air from a tube and thus draw fluid from a container. **3.** That which is drawn into the mouth by sucking.

suckle (sük'él) To nurse at the breast.

sucralose (soo'krí-lös") [Fm. *sucr(ose)* + (*ga*)/(*act*)] *ose*] A sugar substitute manufactured by replacing hydroxyl groups on a sucrose molecule with chloride. It adds a sweet taste to foods without adding calories.

sucre (sü'kräs) [Fr. *sucre*, sugar] A digestive enzyme that splits cane sugar into glucose and fructose, the two being absorbed into the portal circulation. SYN: *invertase*.

sucrose (sü'krös) [Fr. *sucre*, sugar] A disaccharide, C₁₂H₂₂O₁₁, obtained from sugarcane, sugar beet, and other sources. In the intestine, it is hydrolyzed to glucose and fructose by sucrase present in the intestinal juice. The monosaccharides resulting from the digestion of sucrose are absorbed by the small intestine and carried to the liver, where they may be converted to glycogen and stored if they are not needed immediately for energy.

sucrosuria (sü'krō-sü-rē-ä) [r' + Gr. *ouron*, urine] Sucrose in the urine.

suction [LL. *suctio*, sucking] The drawing of fluids or solids from a surface, using negative pressures. SEE: *aspiration*.

closed s., closed suctioning The incorporation of a suction system into a mechanical ventilator that permits airway suctioning without disconnecting patients from the ventilator. Closed suctioning prevents loss of PEEP and loss of alveolar volume, and decreases contamination of the airway or the ventilator circuit by gases, germs, liquids, or fomites in the intensive care unit.

endotracheal s. Tracheobronchial suction.

nasogastric s. The suction of gas, fluid, and solid material from the gastrointestinal tract by use of a tube extending from the suction device to the stomach or intestines via the nasal passage.

open s. Clearing the airways of a mechanically ventilated patient with a suction catheter inserted into the endotracheal tube after the patient has been

disconnected from the ventilator circuit. SEE: *closed s.*

posttussive s. The suction sound over a lung cavity heard on auscultation after a cough.

tracheobronchial s. Clearing the airways of mucus, pus, or aspirated materials to improve oxygenation and ventilation. SYN: *endotracheal suction*.

PATIENT CARE: To avoid hypoxia to the lower airways, the patient must be aggressively ventilated before suctioning. During insertion of the suction tube no negative pressure is used to avoid damaging the fragile lining of the bronchi. Suction is then applied during tubal withdrawal for 15 sec or less. The patient should be in supine position, with head elevated 30 degrees or higher, unless otherwise contradicted. Baseline vital signs and oxygen saturation are assessed, and the patient informed the procedure may initiate coughing. The health care professional performs hand hygiene and puts on clean gloves. The patient is hyperoxygenated for 1 min prior to and after suctioning by increasing the ventilator's fraction of inspired oxygen setting (FIO₂) to 1. The vacuum regulator is adjusted to the desired suction pressure. The catheter is advanced to the carina of the trachea without suctioning to avoid airway injury. The patient with an intact cough reflex will begin to cough. Suctioning begins as the catheter is pulled out of the airway. The patient is checked for desired and adverse effects (such as hypoxia or arrhythmias), and needs are met. Suctioning is repeated as needed to clear secretions (usually no more than two to three passes). When suctioning is complete, the FIO₂ level is returned to the proper setting. Since ventilated patients require frequent oral hygiene, this may be a good time for that to be provided. Gloves are removed, and hand hygiene repeated, and the procedure is documented.

suction channel A passage within an endoscope through which fluids may be injected or removed. During endoscopy it is used to draw blood, feces, mucus, or secretions away from the lens of the scope, so that clinical observations can be made with clarity and tissues can be selected for specimen collection.

suctioning The use of suction to remove debris or body fluids from an airway, body cavity, orifice, or surgical site. SEE: *suction*.

suctorial (sük-tō'rē-äl) [LL. *suctio*, sucking] **1.** Concerning sucking. **2.** Equipped for sucking.

sudamen (sü-dä'měn) *pl. sudamina* [L., sweat] A noninflammatory eruption from sweat glands marked by whitish vesicles caused by the retention of sweat in the cornified layer of the skin, ap-

pearing after profuse sweating or in certain febrile diseases.

Sudan (sū-dān') One of a number of related biological stains for which fats have a special affinity, including Sudan II, Sudan III (G), Sudan IV, and Sudan R.

sudanophil (sū-dān'ō-fil) [*sudan* + Gr. *philein*, to love] A leukocyte that stains readily with Sudan III, indicative of fatty degeneration. **sudanophilic**, *adj.*

sudanophilia (sū-dān'ō-fil'ē-ā) An affinity for Sudan stains.

sudden infant death syndrome ABBR: SIDS. The sudden death of an infant younger than 1 year of age that remains unexplained after a thorough investigation, including a complete autopsy, examination of the death scene, and review of the clinical history. More than 90% of all SIDS deaths occur before the age of 6 months. SIDS is a major contributor to infant mortality in the U.S. and other industrialized nations. (About 2500 infants die of SIDS annually in the U.S.) SYN: *crib death*.

ETIOLOGY: The causes of SIDS are still not clearly understood. Some evidence has linked SIDS to unrecognized congenital abnormalities of either the central nervous system or the electrical conduction system of the heart; to elevated levels of alpha fetoprotein; to rare metabolic diseases, occult infections, or unintentional injuries; or, in some cases, child abuse.

RISK FACTORS: Although the cause of SIDS is unknown, some of the identified factors that increase the risk of SIDS include sleeping on the stomach; sharing a bed with an adult; maternal age less than 20 years; tobacco use in the home; living in overcrowded or unsanitary conditions; and lack of prenatal care. Very low birthweight babies, non-white babies, and male infants have higher rates of SIDS than other babies. More SIDS occurs during the winter months than at other times of year.

PREVENTION: Parents should attempt to remedy those risk factors listed that can be altered or prevented. The prone position for sleep should be avoided. The slogan "Back to Sleep" was devised to remind parents that infants should be positioned on their backs when put to bed. Since the introduction of the "Back to Sleep" campaign, SIDS deaths have declined by about 40%. A firm sleeping surface is recommended. Soft, plush, or bulky items, such as pillows, rolls of bedding, or cushions should not be placed in the infant's sleeping environment. These items could come into close contact with the infant's face, thereby interfering with ventilation or entrapping the infant's head and causing suffocation. Breast-feeding mothers should be advised to avoid alcohol, drugs, and OTC and

herbal remedies that could contain substances that would depress the infant's central nervous system. Guidelines from the American Academy of Pediatrics recommend use of a pacifier from age 1 month to help reduce the risk of SIDS by preventing the infant from sleeping too soundly. If rejected, the pacifier should not be forced, and pacifier use should end by 12 months because continued use increases the risk of ear infections and teeth malalignment. Home monitoring of the infant with apnea monitors or baby listening devices provide parents with reassurance about the status of their infants, but have not been clearly proven to prevent SIDS. During prenatal checkups, parents should be educated about SIDS risk factors. Parental smoking should be discouraged, as should smoking by anyone else entering the home. Baby-sitters, daycare providers, and others who may be involved in care of the infant should be made aware of the parents' concerns for their infant. Placing an infant who is used to sleeping on his/her back in prone position increases the risk for SIDS. SEE: *apnea*; *apnea alarm mattress*.

PATIENT CARE: Parents can make sure that the crib and bedding they plan to use are safe by accessing the U.S. Consumer Product Safety Commission's guidelines at <http://www.cpsc.gov>. Loss of an infant because of SIDS usually produces a severe grief and guilt reaction. Thus, the family needs expert counseling in the several months after the death. Valuable sources of support and information about SIDS are First Candle/SIDS Alliance (Phone 1-800-221-7437; www.sidsalliance.org) and SIDS Families (www.sidsfamilies.com).

sudden infant death syndrome, risk for Presence of risk factors for sudden death of an infant under 1 year of age. SEE: *Nursing Diagnoses Appendix*.

Sudeck's disease, Sudeck's atrophy (soo'déks) Reflex sympathetic dystrophy.

sudor (sū'dōr) [L.] Sweat. **sudoral** (sū'dōr-āl), *adj.*

sudoresis (sū'dō-rē'sis) [L.] Diaphoresis.

sudorific (sū'dōr-īf'ik) [L. *sudorificus*] 1. Secreting or promoting the secretion of sweat. 2. An agent that produces sweating. SYN: *diaphoretic*.

sue 1. To initiate legal action. 2. To make a petition or pleading to the court.

suet (sū'ēt) [Fr. *sewet*, suet] A hard fat from cattle or sheep kidneys and loins, used as the base of certain ointments and as an emollient.

suffer 1. To experience pain or distress. 2. To be subjected to injury, loss, or damages.

suffocate (sūf'ō-kāt) [L. *suffocare*] To

impair respiration; to smother, asphyxiate.

suffocation (sūf'ō-kā'shūn) Deprivation of air exchange (e.g., by drowning, smothering, or other forms of airway obstruction) that produces an intense sensation of air hunger. SYN: *asphyxiation*. SEE: *asphyxia*; *resuscitation*; *unconsciousness*.

s., **risk for** Accentuated risk of accidental suffocation (inadequate air available for inhalation). SEE: *Nursing Diagnoses Appendix*.

suffusion (sū-fū'zhūn) [L. *suffusio*, a pouring over] 1. Extravasation. 2. Pouring of a fluid over the body as treatment.

sugar [O.Fr. *zuchre*] A sweet-tasting, low-molecular-weight carbohydrate of the monosaccharide or disaccharide groups. Common sugars include fructose, glucose, lactose, maltose, sucrose, and xylose. Oral or parenteral administration of sugars can prevent hypoglycemia caused by insulin or oral hypoglycemic agents.

CLASSIFICATION: Sugars are classified in two ways: the number of atoms of simple sugars yielded on hydrolysis by a molecule of the given sugar and the number of carbon atoms in the molecules of the simple sugars so obtained. Therefore, glucose is a monosaccharide because it cannot be hydrolyzed to a simpler sugar; it is a hexose because it contains six carbon atoms per molecule. Sucrose is a disaccharide because on hydrolysis it yields two molecules, one of glucose and one of fructose. SEE: *carbohydrate*.

blood s. Glucose in the blood, normally 60 to 100 mg/100 ml of blood. It rises after consumption of a meal to variable levels, depending on the content of the meal, the activity level of and medications used by the consumer, and other variables. In diabetes mellitus, fasting blood sugar levels exceed 126 mg/dl. SEE: *glucose*.

cane s. Sucrose obtained from sugar cane.

fruit s. Fructose.

invert s. Mixture consisting of one molecule of glucose and one of fructose resulting from the hydrolysis of sucrose.

malt s. Maltose.

milk s. Lactose.

muscle s. Inositol; not a true sugar.

simple s. A sugar molecule made of few components (e.g., a monosaccharide or disaccharide).

wood s. Xylose.

suggestible (sūg-jēs'ti-bl) Very susceptible to the opinions of others.

suggestion (sūg-jēs'chūn) [L. *suggestio*] 1. The imparting of an idea indirectly; the act of implying. 2. The idea so conveyed. 3. The psychological process of having an individual adopt or accept an idea without argument or persuasion.

posthypnotic s. A suggestion given during hypnosis that influences the behavior of an individual when awake and alert.

suggestive (sūg-jēs'tiv) Stimulating or pert. to suggestion.

suggestive therapeutics The practice of treating disease by hypnotic suggestions.

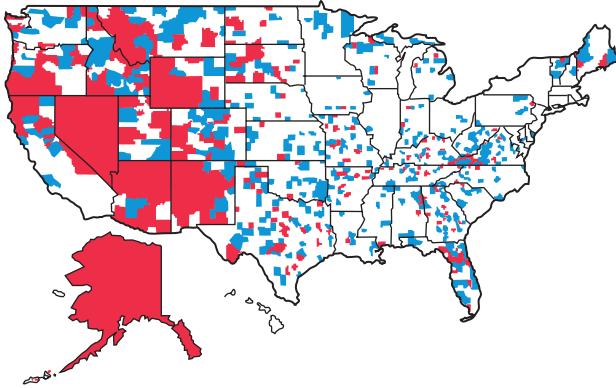
suicide (sū'ī-sīd) [L. *sui*, of oneself, + *caedere*, to kill] Intentionally causing one's own death. In the U.S., about 30,000 people commit suicide each year. Currently, suicide is the ninth most common cause of death in the U.S.

RISK FACTORS: Although suicide attempts are more frequently made by young women than any other group, successful suicide is most likely to occur when attempted by older men who live alone or young veterans returning from war. These men are most likely to use truly violent means in their suicide attempts (e.g., shooting themselves, jumping from heights, or hanging). Other risk factors for suicide include having a first-degree relative with a mood disorder; recurrent thoughts or discussion of suicide, esp. if a concrete plan for suicide has been contemplated; the means to commit suicide, esp. a weapon in one's possession; alcoholism; a new diagnosis of a mortal illness; living alone; a recent divorce or job loss; or uncontrolled pain caused by physical illness. Many people who kill themselves have consulted a health care provider in the months or weeks immediately before their death, a fact that suggests that opportunities to intervene in the at-risk population are often missed.

PREVENTION: Health care professionals should be alert to the warning signs of suicide (e.g., statements indicating a desire to die or a prediction that suicide will occur). People contemplating suicide may be depressed, act to get their lives in order, give away possessions, have failing grades or poor work performance, adopt risk-taking behavior, or have a history of alcoholism or drug abuse.

Management of those who are contemplating or have attempted suicide includes removal of lethal means from them and the provision of professional, social, and family support. If the patient is being treated as an outpatient, then he or she should be scheduled for specific future appointments and informed of a telephone number where help or assistance will be immediately available on a 24-hr basis. During a crisis, the patient should not be left alone even for a few minutes. For medicolegal reasons, careful and complete medical records should be kept concerning the plans and actions for management of the patient.

SEE: *illus*.



SUICIDE

Suicide rates in the U.S. 1989–1998. Number of counties, with respect to national percentiles: [red] 308 at or above the 90th percentile; [blue] 460 at or above the 75th but less than the 90th percentile; [white] 2304 less than the 75th percentile.

assisted s. ABBR: AS. Providing a patient with the means for ending his life (usually a prescription for a lethal dose of barbiturates), knowing that the patient intends to use it to commit suicide. Although someone other than the patient supplies the means, the patient is the person who takes action to end his life. For AS to occur, the patient must be physically and mentally capable of committing suicide. AS is sometimes called “physician-assisted suicide” because the lethal prescription is typically provided by a physician. Whether professionals should involve themselves in assisted suicide is a topic of active debate. In the U.S. an assisted suicide ballot initiative was approved by voters in Oregon in 1993 and reaffirmed in 1997. Its legality has been affirmed by the U.S. Supreme Court. Assisted suicide is also legal in Belgium, the Netherlands, and Switzerland. SEE: *death, assisted; euthanasia.*

physician-assisted s. The prescription by a physician of a lethal dose of a medication to a patient. Physician-assisted suicide is illegal in most nations, but was legalized in the U.S. in the state of Oregon in 1997.

suicide cluster An epidemic of suicides, within either a defined location or a brief period of time.

suicide gene A gene that codes for a protein, usually an enzyme, that makes cells vulnerable to otherwise nontoxic substances or nutrients. Suicide genes can be introduced into cells during gene therapy. The technique is used in cancer therapy to make tumor cells susceptible to treatment with prodrugs, which only become active chemotherapeutic agents when they are metabolized within cells harboring the gene. Suicide gene ther-

apy is also used in graft-versus-host disease to kill the activated donor T cells responsible for the immunological attack on the host.

suicide prevention center A health care facility dedicated to preventing suicide by counseling and crisis intervention.

suicidology (soo’ī-sīd-ōl’ō-jē) [” + ” + Gr. *logos*, word, reason] The science of suicide, including its cause, prediction of those susceptible, and prevention.

suit 1. A lawsuit, legal action, or court proceeding by one party against another for damages or other legal remedies. 2. An outer garment.

anti-G s. A garment designed to produce uniform pressure on the lower extremities and abdomen. Normally the suit is used by aviators to help prevent pooling of blood in the lower half of the body during certain flight maneuvers. The garment has also been used in treating severe forms of postural hypotension. The suit’s usefulness in treating shock is questionable.



This garment is contraindicated in congestive heart failure, cardiogenic shock, and penetrating chest trauma.

sulcate, sulcated (sūl’kāt, -əd) [L. *sulcatus*] Furrowed or grooved.

sulciform (sūl’sī-form) [L. *sulcus*, groove, + *forma*, form] Resembling a sulcus.

sulcus (sūl’kūs) *pl.* **sulci** [L., groove] A furrow, groove, depression, or fissure, esp. of the brain.

alveololingual s. The space in the floor of the mouth between the base of the tongue and the alveolar ridge, on each side extending from the frenum of the tongue back to the retromolar wall.

calcarine s. A deep horizontal fissure on the medial surface of the occipital lobe of the brain.

s. centralis SYN: *Rolando's fissure*.

cingulate sulcus A long groove on the medial (inner) face of the cerebral hemisphere that outlines the upper margin of the cingulate gyrus.

s. cutis The ridges on the skin of the palmar surface of the fingers and toes, which form the fingerprints.

gingival s. The space or crevice between the free gingiva and the tooth surface. The healthy sulcus produces gingival sulcular fluid (GSF), which helps remove bacteria from the sulcus. Normal sulcus depth is 0.5 to 1.5 mm. Inflammation in the sulcus is the first sign of gingivitis. When enlarged by disease, the gingival sulcus deepens and becomes a periodontal pocket.

intraparietal s. The groove that separates the superior and inferior parietal convolutions.

lateral s. Fissure of Sylvius.

malleolar s. Malleolar groove.

median s. of the tongue The midline groove that separates the surface of the tongue into right and left halves.

Monro's s. Groove on the lateral wall of the third ventricle from the opening to the lateral ventricle to the opening of the cerebral aqueduct of the brain.

olfactory nasal s. An anterior-posterior groove in the wall of the nasal cavity. It passes from the anterior area to the lamina cribrosa. SYN: *nasal carina*.

sulfatase (sül'fä-täs) An enzyme that hydrolyzes sulfuric acid esters.

sulfate (sül'fat) [L. *sulphas*] A salt or ester of sulfuric acid.

atropine s. Salt of an alkaloid obtained from belladonna. A parasympatholytic agent, it counteracts the effects of parasympathetic stimulation. It is used primarily to treat potentially life-threatening bradycardias and heart blocks. SEE: *poisoning, atropine sulfate*.

chondroitin s. A glycosaminoglycan present in connective tissue, including the cornea and cartilage. It is used as a dietary supplement to treat joint pain, esp. in people and animals with degenerative joint disease, usually combined with the dietary supplement glucosamine.

dermatan s. A macromolecule found throughout the body that may have an important function in the formation of connective tissue by promoting cell growth. Dermatan sulfate helps fibroblasts to develop into cells, including cartilage and synovial tissue. It also promotes blood coagulation. SEE: *proteoglycans*.

ferrous s. An iron compound used to treat iron-deficiency anemia.

heparan s. ABBR: HS. A macromolecule of the proteoglycan family found on cell walls and in basement mem-

branes. It is instrumental in embryonic organ development, blood vessel development, and cell adhesion. It also regulates blood coagulation and growth factor-cytokine action.

iron s. Ferrous sulfate. SEE: *copperas; copper salts in Poisons and Poisoning Appendix*.

magnesium s. SEE: *magnesium sulfate*.

sulfatide (sül'fä-tīd) Any cerebroside with a sulfate radical esterified to the galactose.

sulfhemoglobin (sül'f'hēm-ō-glō'bīn) Sulfmethemoglobin.

sulfhemoglobinemia (sül'f'hēm-ō-glō'bīn-ē'mē-ä) A persistent cyanotic condition caused by sulfhemoglobin in the blood.

sulfhydryl (sül'f-hī'drīl) The univalent radical, SH, of sulfur and hydrogen.

sulfide (sül'fid) Any compound of sulfur with an element or base.

sulfmethemoglobin (sül'f'mēt-hē'mō-glō'bīn) The greenish hemoglobin compound formed when hemoglobin and hydrogen sulfide are combined. SYN: *sulfhemoglobin*.

sulfonamide (sül'fōn'ä-mīd") Any a group of compounds consisting of amides of sulfanilic acid derived from their parent compound sulfanilamide. They are characterized by the presence of a $-SO_2NH_2$ moiety in their chemical structure.



Sulfa drugs may cause allergic reactions, such as rashes, and other adverse reactions, such as nausea and vomiting.

sulfone (sül'fōn) An oxidation product of sulfur compound in which the $=SO_2$ is united to two hydrocarbon radicals.

sulfonylurea (sül'fū-nīl'ūr-ē-ū) One of a class of oral drugs used to control hyperglycemia in type 2 diabetes mellitus. Members of this group include tolazamide, glyburide, and glipizide.



Hypoglycemia may occur as a side effect of these medications if they are taken when dietary intake is limited or restricted voluntarily or during illness.

sulforaphane, sulphoraphane (sül'fōr'ä-fän") [" + Gr. *phainein*, to show] ABBR: SF. A sulfur-containing compound found in vegetables of the mustard family (Cruciferae). Like other isothiocyanates, it has been shown to prevent cancer in animals.

sulfosalicylic acid test (sül'fō-säl'tī-sīl'īk) A test for protein in the urine.

sulfourea (sül'fō-ūr-ē'ä) Thiourea.

sulfoxide (sül'fök'sīd) The divalent radical $=SO$.

sulfur (sül'fūr) [L.] SYMB: S. A pale yellow, crystalline element; atomic weight, 32.06; atomic number, 16; specific gravity, 2.07. It burns with a blue flame, producing sulfur dioxide.

Sulfur is part of some amino acids (cystine, cysteine) and is necessary for the synthesis of proteins such as insulin and keratin. The amount of sulfur (as sulfate) excreted in urine varies with the amount of protein in the diet but more or less parallels the amount of nitrogen excreted, as both are derived from protein catabolism. The S:N ratio is approx. 1:14 (i.e., for each gram of sulfur excreted, 14 g of nitrogen are excreted). The amount of sulfur excreted daily is about 1 g.

DEFICIENCY SYMPTOMS: Sulfur deficiency produces dermatitis and imperfect development of hair and nails. A deficiency of cystine or cysteine proteins in the diet inhibits growth and may be fatal. Tissue oxidation of cystine forms inorganic sulfate if the protein intake is sufficient.

s. dioxide An irritating gas used in industry to manufacture acids and as a bactericide and disinfectant. It is a major component of air pollution.

precipitated s. A form of sulfur used in various skin diseases, including scabies. Its keratolytic effect helps to make it effective in those disorders.

sulfurated, sulfureted (sül'fū-rā'tēd, -rēt'ēd) Combined or impregnated with sulfur.

sulfurated hydrogen Hydrogen sulfide.

sulfuric acid poisoning SEE: under *poisoning*.

sumac (soo'māk) The common name for several species of shrub of the Toxicodendron family.

poison s. A shrublike plant, *Toxicodendron vernix*, widely distributed in the U.S. Because it contains the same active substances as poison ivy, the symptoms and treatment of poison sumac dermatitis are the same as for poison ivy dermatitis. SEE: *poison ivy* for illus.

sumatriptan (soo-mā-trīp'tān) A drug from the class of 5-hydroxytryptamine antagonists that can be given, either orally or by injection, to treat migraine headaches. Adverse effects include return of the headache and precipitation of angina pectoris in patients with coronary artery disease, among others.

summation (süm-ā'shūn) [L. *summatio*, adding] A cumulative action or effect, as of stimuli; thus, an organ reacts to two or more weak stimuli as if they were a single strong one.

SUNA headache An abbreviation for *short-lasting unilateral neuralgiform headache with cranial autonomic features*, a form of intense headache affecting one side of the face and often asso-

ciated with tearing, reddening of the conjunctiva, and swelling of the eyelid on the affected side. A SUNA headache is similar to a SUNCT headache; some headache specialists consider SUNCT headache to be a subtype of SUNA and both to be related to disturbances of the trigeminal nerve.

sunburn [AS. *sunne*, sun, + *bernan*, to burn] Dermatitis due to excessive exposure to the actinic rays of the sun. The rays that produce the characteristic changes in the skin are ultraviolet, between 290 and 320 nm (sunburn rays). Some people are more resistant to these rays than others, but the skin will be damaged in anyone who has sufficient exposure.

PREVENTION: Direct exposure of the skin to sunlight between 10 A.M. and 3 P.M., when ultraviolet rays are strongest, should be avoided to minimize the risk of sunburn and skin cancer. Clothing should be worn to cover the skin or a sun-blocking agent with a sun protective factor (SPF) of 15 or more should be used (to be reapplied each hour if the person is sweating heavily).



Sunbathing and sunburn are risk factors for skin cancers, including basal cell carcinoma, squamous cell carcinoma, and melanoma.

TREATMENT: Cool, wet dressings may be applied to the burned area if the reaction is moderate. For severe sunburn, lukewarm baths with oatmeal or cornstarch and baking soda should be given. Aspirin or other nonsteroidal anti-inflammatory agents may reduce inflammation and pain.

SUNCT headache An abbreviation for *short-lasting unilateral neuralgiform headaches occurring with conjunctival injection and tearing*, consisting of brief but repetitive intense attacks affecting one side of the face and the eye on the same side. Transient nasal congestion often accompanies the headache. The syndrome is most often reported in men over 50, although it has been documented in other groups of patients.

Sunday morning paralysis Radial nerve palsy, sometimes the indirect result of acute alcoholism resulting from the stuporous patient lying immobile with his or her arm pressed over a hard surface. SYN: *musculospiral paralysis*; *Saturday night paralysis*.

sundowning (sun'dow-nīng) Confusion or disorientation that increases in the afternoon or evening. It is a common finding in patients with cognitive disorders (e.g., elderly persons with dementia) and tends to improve when the patient is reassured and reoriented.

sunflower eyes Slang term for the ap-

pearance of the eyes of patients with Wilson's disease. Deposits of copper around the edge of the cornea (Kayser-Fleischer rings) cause this condition.

sunglasses Eyeglasses that protect the eyes from exposure to visible as well as ultraviolet rays. For optimal eye protection outdoors, wraparound sunglasses or solar shields that block both ultraviolet A and ultraviolet B rays should be worn.

sunna circumcision Female genital cutting (e.g., removal of the clitoris, among other procedures).

sunrise view An x-ray of the knee in flexion, taken to highlight the patella and its relation to the femoral condyles, e.g., in evaluations of osteoarthritis. SYN: *skyline view*.

sunscreens A substance used as a second line of defense against damage to the skin by ultraviolet rays. It is usually applied as an ointment or cream. SEE: *photosensitivity; ultraviolet radiation*.



Sunscreens are much less effective in protecting against the damaging effects of the sun than avoiding midday sunlight and wearing protective clothing and headgear—these are the primary defenses against solar injury. Sunscreens should be reapplied after vigorous exercise and swimming. Some sunscreens may cause allergic or contact dermatitis.

sunscreens protective factor index In preparations (sunscreens) for protecting the skin from the sun, the ratio of the amount of exposure needed to produce a minimal erythema response with the sunscreen in place divided by the amount of exposure required to produce the same reaction without the sunscreen. This index assesses the ability of sunscreens to block (short-wavelength) ultraviolet B rays but does not measure the protective effect of sunscreens against (long-wavelength) ultraviolet A radiation. SEE: *erythema dose*.

Sun's soup (sūnz, soonz) A dietary supplement consisting of a mixture of herbs and vegetables and promoted as a treatment for a variety of cancers. Also known as Selected Vegetables.

sunstroke (sūn'strōk) [AS. *sunne*, sun, + *strake*, a blow] Heatstroke.

suntan Darkening of the skin caused by exposure to the sun. SEE: *tanning salon; sunburn; sunscreen*.



A suntan predisposes exposed skin to basal cell carcinoma, squamous cell carcinoma, melanoma, and premature aging.

super- [L., over, above] Combining form meaning *above, beyond, superior*.

superantigen (soo'pēr-ān'ti-jēn) An antigen that binds with class I major histocompatibility antigens and T-cell receptors and causes the simultaneous activation of large numbers of T cells and massive release of cytokines. Such antigens do not have to be processed by macrophages to be recognized by T cells. Exotoxins from bacteria such as staphylococci and group A streptococci act as superantigens. A superantigen known as toxic shock syndrome toxin-1 causes toxic shock syndrome.

superciliary (soo'pēr-sil'ē-ā-rē) [L. *supercilium*, eyebrow] Pert. to or in the region of an eyebrow. SYN: *supraciliary*.

supercilium (soo'pēr-sil'ē-ūm) *pl. supercilia* [L.] 1. Eyebrow. 2. A hair of the eyebrow.

superclass (soo'pēr-klās) In taxonomy, a category between a phylum and a class.

superego (soo'pēr-ē-gō) [ʹ + *ego*, I; later translators of Freud's writings feel the word *uber-ich* should have been translated to over-I or upper-I and not to superego] In Freudian psychoanalytical theory, the portion of the personality associated with ethics, self-criticism, and the moral standard of the community. It is formed in infancy by the individual's adopting as his or her personal standards the values of the significant persons with whom he or she identifies. This helps to form the conscience. The superego functions to protect and to reward when the ego-ideal of behavior or thought is satisfied and to criticize, punish, and evoke a sense of guilt when the reverse is true. In neuroses, symptoms develop when instinctual drives conflict with those dictated by the superego. SEE: *ego*.

supereruption Overeruption.

superexcitation (soo'pēr-ēk'sī-tā'shūn) [ʹ + *excitatio*, excitation] Excess excitement.

superfamily (soo'pēr-fām'ī-lē) In taxonomy, a category between an order and a family.

superfecundation (soo'pēr-fē'kūn-dā'shūn) [ʹ + *fecundare*, to fertilize] Successive fertilization by two or more separate instances of sexual intercourse of two or more ova formed during the same menstrual cycle. Fertilization may be by the same male or by two different males.

superfemale (soo'pēr-fē'māl) A female having three X chromosomes.

superfetation (soo'pēr-fē-tā'shūn) [ʹ + *fetus*, fetus] The fertilization of two ova in the same uterus at different menstrual periods within a short interval.

superficial (soo'pēr-fish'āl) [L. *superficialis*] 1. Pert. to or situated near the surface (e.g., of the ribs in relation to the lungs). 2. Not thorough; cursory.

superficialis (soo'pēr-fish-ē-ā'lis) [L.]

Noting a structure such as an artery, vein, or nerve that is nearer to the surface.

superglue (soo'pěr-gloo") An extremely strong adhesive made of cyanoacrylate. It can be used to reapproximate the edges of a wound, without sutures.



This glue is quite effective in gluing skin to skin. It should not be used near the eyes, mouth, nose, labia, or other sensitive body parts.

superinduce (soo'pěr-in-dūs') [*"* + *in*, into, + *ducere*, to lead] To bring on, over, or above an already existing condition or situation.

superinfection (soo'pěr-in-fěk'shün) [*"* + *infectio*, a putting into] A new infection caused by an organism different from that which caused the initial infection. The microbe responsible is usually resistant to the treatment given for the initial infection.

superinvolution (soo'pěr-in-vō-lū'shün) [*"* + *involutus*, a turning] Hyperinvolution.

superior (soo-pě'rē-or) [L. *superus*, upper] **1.** Higher than; situated above something else. **2.** Better than. **3.** One in charge of others.

superior vena cava syndrome A partial occlusion of the superior vena cava with resulting interference of venous blood flow from the head and neck to the heart. This emergency condition is typically caused by obstruction of the great vessels, usually by a cancer located in the mediastinum. It is marked by venous engorgement and edema of the head and neck.

supermotility (soo'pěr-mō-tīl'ī-tē) [*"* + *motilis*, moving] Excessive motility in any part. SYN: *hyperkinesia*.

supernatant (soo'pěr-nā'tānt) [*"* + *natare*, to float] **1.** Floating on a surface, as oil on water. **2.** The clear liquid remaining at the top after a precipitate settles. **3.** The cell-derived fluids containing chemical mediators that develop in a laboratory culture of leukocytes mixed with an antigen or mitogen stimulus. Supernatants can be assessed for the presence of monokines or lymphokines by adding them to other white blood cell cultures and measuring cell proliferation and activity.

supernate (soo'pěr-nāt) A supernatant fluid.

supernumerary (soo'pěr-nū'měr-ār'ē) [L. *supernumerarius*] Exceeding the regular number.

supernumerary teeth More than the usual number of teeth. Extra teeth develop in approx. 2% of the population, with almost all of them being maxillary incisors or mesiodens. A cleft palate or other developmental disturbances dis-

rupt the dental lamina and often result in palatal supernumerary teeth.

superolateral (soo'pěr-ō-lăt'ēr-āl) [*"* + *latus*, side] Above and to the side.

superovulation (soo'pěr-ōv'ū-lā'shün) [*"* + *ovulum*, little egg] An increased frequency of ovulation or production of a greater number of ova at one time. This is usually caused by the administration of gonadotropins.

superoxide (soo'pěr-ōk'sid) A highly reactive form of oxygen. Superoxide is produced during the normal catalytic function of certain enzymes, by the oxidation of hemoglobin to methemoglobin, and when ionizing radiation passes through water. It is also produced when granulocytes phagocytize bacteria. Superoxide is destroyed by the enzyme superoxide dismutase, which catalyzes the conversion of two molecules of superoxide anion to one molecule of oxygen and one of hydrogen peroxide. Superoxides play a part in many diseases and conditions, including central nervous system damage in amyotrophic lateral sclerosis and endothelial damage in hypertension and diabetes mellitus.

superoxide dismutase An enzyme that destroys superoxide. One form of the enzyme contains manganese, and another contains copper and zinc.

superparasite (soo'pěr-pār'ā-sīt) [*"* + Gr. *para*, beside, + *sitos*, food] **1.** A parasite that lives upon another parasite. **2.** A parasite involved in superparasitism.

superparasitism (soo'pěr-pār'ā-sīt'izm) [*"* + *"* + *-ismos*, condition] A condition in which the host is infested or infected with a greater number of parasites than can be supported.

superphosphate (soo'pěr-fōs'fāt) Acid phosphate.

supersaturate (soo'pěr-säch'ū-răt") To add more of a substance to a solution than can be dissolved permanently.

superscription (soo'pěr-skrīp'shün) [L. *super*, over, above, + *scriptio*, a writing] The beginning of a prescription noted by the sign R, signifying (L.) *recipe*, take.

supersensitive (soo'pěr-sěn'sī-tīv) [*"* + *sensitivus*, feeling] Hypersensitive.

supersoft (soo'pěr-sōft') [*"* + AS. *softe*, soft] Exceptionally soft; noting roentgen rays of extremely long wavelength and low penetrating power.

supersonic (soo'pěr-sōn'ik) [*"* + *sonus*, sound] **1.** Ultrasonic. **2.** Used to describe speeds greater than that of sound. At sea level, in air at 0°C, the speed of sound is about 331 m, or 1087 ft per second (741 mph). **3.** A sound frequency that is greater than 20,000 cycles per second.

superstructure (soo'pěr-strūk'chūr) The visible portion of a structure, esp. those parts external to the main structure.

supervenosity (soo'pĕr-vĕ-nōs'ĭ-tē) Abnormally decreased oxygen in the venous blood.

supervention (soo'pĕr-vĕn'shŭn) [L. *superventio*, a coming over] The development of an additional condition as a complication to an existing disease.

supervirulent (soo'pĕr-vĭr'ū-lĕnt) [L. *super*, over, above, + *virulentus*, full of poison] More virulent than usual.

supervisor (soo'pĕr-vĭz'ĕr) [L. *supervisus*, having looked over] One who directs and evaluates the performance of others. In a health care setting, the supervisor usually has the knowledge and skills to provide the same service as those being directed (e.g., the supervisor of the pharmacy, physical therapy, or maternity nursing).

supervitaminosis (soo'pĕr-vĭ'tā-mĭ-nō'sis) Hypervitaminosis.

supervoltage (soo'pĕr-vōl'tĭj) A term applied to x-rays produced by very high voltage, usually in the megavolt range.

supinate (sŭ'pĭ-nāt) [L. *supinatus*, bent backward] **1.** To turn the forearm or hand so that the palm faces upward. **2.** To rotate the foot and leg outward.

supination (sŭ'pĭn-ā'shŭn) [L. *supinatio*] **1.** The turning of the palm or the hand anteriorly or the foot inward and upward. **2.** The act of lying flat upon the back. **3.** The condition of being on the back or having the palm of the hand facing upward or the foot turned inward and upward.

supinator (sŭ'pĭn-ā'tor) [L.] A muscle producing the motion of supination of the forearm.

supine (sŭ-pĭn') [L. *supinus*, lying on the back] **1.** Lying on the back with the face upward. **2.** A position of the hand or foot with the palm or foot facing upward; the opposite of prone.

supine hypotensive syndrome Sudden fall in blood pressure due to diminished venous return caused by compression of the vena cava by the gravid uterus when the pregnant woman rests flat on her back. The low venous return also results in decreased placental perfusion and potentially in fetal hypoxia. SYN: *vena caval syndrome*.

supplement (sŭp'lĕ-mĕnt) [L. *supplementum*, an addition] **1.** An additive (e.g., something added to a food to increase its nutritive value). **2.** To add. **supplemental, adj.**

supplementation (sŭp'lĕ-mĕn-tā'shĭn) **1.** The addition of a vitamin, mineral, or other nutrient to a food. **2.** The enhancement of the diet with special nutrients.

support (sŭ-port') **1.** That which assists in maintaining something in place. **2.** In dentistry, the abutting teeth, alveolar ridge, and mucosal tissues upon which the denture rests.

s. group SEE: under *group*.

s. hose Elastic stockings that may

extend from the toes to the knee or above. These are worn by patients to provide sufficient pressure on the tissues to facilitate venous return and to help to prevent the formation of thrombi in the veins of the legs.

social s. Help given by others to provide feedback, satisfy needs, and validate one's experience. A large body of research suggests that the loss of social support is a causal factor of both physical and psychological disease. Nursing practice uses social supports such as tangible materials, teaching, and intimate interactions to restore, promote, and care for patients.

supportive treatment Special measures employed to supplement specific therapy.

suppository (sŭ-pōz'ĭ-tō-rĕ) *pl.* **suppositories** [L. *suppositorium*, something placed underneath] A semisolid substance for introduction into the rectum, vagina, or urethra, where it dissolves. It may be used to stimulate a bowel movement, but often serves as a vehicle for medicines to be absorbed. It is commonly shaped like a cylinder or cone and may be made of soap, glycerinated gelatin, or cocoa butter (oil of theobroma).

PATIENT CARE: Privacy is provided. The nurse instructs the patient to retain the suppository for about 20 min for effectiveness as a laxative, and for as long as possible (until it dissolves and medication is absorbed) when it is a vehicle, and positions the patient appropriately. The suppository is lubricated and inserted into the appropriate orifice. For neurological rehabilitation, a rectal suppository may be used by the patient after instruction in bowel management. The nurse checks with the patient about effectiveness and notes that in the chart.

suppression (sŭ-prĕsh'ŭn) [L. *suppressio*, a pressing under] **1.** The control, but not complete eradication, of a disease, esp. an infection. In the management of HIV/AIDS, e.g., drug therapies are designed to suppress viral loads to very low levels. **2.** The complete failure of the natural production of a secretion or excretion, as distinguished from retention, in which normal secretion occurs but the discharge is retained within the organ or body. **3.** In Freudian psychoanalysis, the ego defense mechanism of conscious inhibition of an idea or desire, as distinguished from repression, which Freud considered an unconscious process.

active immune s. The use of agents to block an antigen-specific immune response. An example is the administration of anti-Rh antibodies (Rh₀ immune globulin) to Rh-negative mothers during the 28th week of pregnancy to prevent

the formation of maternal antibodies that cause erythroblastosis fetalis in the Rh-positive newborn.

androgen s. Androgen deprivation.

appetite s. The use of drugs, biofeedback, hypnosis, cognitive therapies, or other means to regulate the desire for food and its consumption.

suppression of menses 1. Amenorrhea in which menstruation ceases after once being established and from some cause other than hysterectomy, pregnancy, or menopause. SEE: *hypothalamic amenorrhea*; *pathological amenorrhea*. 2. Any suppression of the menses.

suppressor T cells A subpopulation of T lymphocytes that slows and stops a specific immune response. SYN: *regulatory T cell*.

suppurant (sŭp'ū-rānt) [L. *suppurans*] 1. Producing, tending to produce, or marked by pus formation. 2. An agent causing pus formation.

suppurate (sŭp'ū-rāt) [L. *suppurare*] To form or generate pus.

suppuration (sŭp-ū-rā'shŭn) [L. *suppuratio*] 1. The formation of pus. SEE: *pus*. 2. Pus.

suppurative (sŭp'ū-rā'tiv, -rā'tiv) [L. *suppuratus*] 1. Producing or associated with generation of pus. SEE: *pus*; *pyogenic*. 2. An agent producing pus formation.

supra- [L.] Combining form meaning *above, beyond, or on the top side*.

suprabulge (soo'prā-bŭlj) The part of the crown of a tooth that curves toward the occlusal surface.

suprachoidea (soo'prā-kō-roy'dē-ā) Suprachoroid lamina.

supraciliary (soo'prā-sil'ē-ēr'ē) [L. *supra*, above, on top, beyond, + *cilia*, eyelid] Superciliary.

supraclavicular point A stimulation point over the clavicle at which contraction of the arm muscles may be produced.

supracostal (soo'prā-kōs'tāl) [L. + *costa*, rib] Above the ribs.

supradiaphragmatic (soo'prā-dī'rā-frāgmāt'ik) [L. + Gr. *diā*, across, + *phragma*, wall] Above the diaphragm.

supraduction (soo'prā-dŭk'shŭn) [L. + *ducere*, to lead] Turning upward of the eye.

supragingival (soo'prā-jīn'jī-vāl) Above the gingiva; used in reference to the location of dental restorations, bacterial plaque, or calculus on the tooth. It is often contrasted with subgingival, the gingival margin being the reference point.

supraglenoid (soo'prā-glē'noyd) [L. + Gr. *glene*, socket, + *eidōs*, form, shape] Above the glenoid cavity or fossa.

supraglenoid tuberosity A rough surface of the scapula above the glenoid cavity to which is attached the long head of the biceps muscle.

suprahepatic (soo'prā-hē-pāt'ik) [L. + Gr. *hepar*, liver] Located above the liver.

suprahyoid muscles The digastric, geniohyoid, mylohyoid, and stylohyoid muscles.

supraliminal (soo'prā-līm'ī-nāl) [L. *supra*, above, on top, beyond, + *limen*, threshold] 1. Above the threshold of consciousness; conscious. 2. Exceeding the stimulus threshold. SEE: *subliminal*.

supramammary (soo'prā-mām'ā-rē) [L. + *mamma*, breast] Located above the breast.

supramarginal (soo'prā-mār'jīn-āl) [L. + *marginalis*, border] Located above any border.

supramastoid crest A ridge on the superior edge of the posterior root of the zygomatic bone.

supramaxillary (soo'prā-māk'sī-lēr-ē) 1. Rel. to the upper jaw. 2. Located above the upper jaw.

suprameatal (soo'prā-mē-ā'tāl) [L. + *meatus*, passage] Above a meatus, esp. the suprameatal spine.

supramental (soo'prā-mēn'tāl) [L. *supra*, above, on top, beyond, + *mentum*, chin] Located above the chin.

supranuclear (soo'prā-nū'klē-lār) [L. + *nucleus*, little kernel] Concerning nerve fibers located above a nucleus in the brain.

supraocclusion (soo'prā-ō-kloo'zhŭn) [L. + *occlusio*, occlusion] Overeruption.

supraorbital neuralgia Neuralgia of the supraorbital nerve. SYN: *hemicrania* (1).

supraorbital notch A notch in the superior margin of the orbital arch for transmitting supraorbital vessels and nerve.

suprapatellar (soo'prā-pā-tēl'ār) [L. + *patella*, a small pan] Located above the patella.

suprapubic (soo'prā-pŭ'bik) [L. + NL. (*os*) *pubis*, bone of the groin] Located above the pubic arch.

suprapubic aspiration of urine A procedure for draining the bladder when it is not possible to use a urethral catheter. The skin over the lower abdominal area is cleansed. An incision in the abdominal wall is made with a needle or trocar to gain access to the bladder. To prevent complications during the procedure, it is important to observe the following guidelines: The patient should be positioned in the marked Trendelenburg position. The bladder should be distended with 400 ml of fluid. Any previous abdominal wall incisions that may have left the bladder or bowel adherent to the scar tissue should be noted. The incision should be no more than 3 cm above the pubic symphysis. The trocar should be inserted 30 degrees toward the bladder, i.e., away from the pubic symphysis (if in doubt, a small-gauge needle should

be inserted for orientation); the trocar should not be placed in a vertical direction. The depth of trocar insertion should be monitored, using gentle pressure on the trocar to prevent damage to the bladder base.



The needle may pierce a loop of bowel that is lying over the anterior surface of the bladder.

suprarenal (soo'pră-rē'năl) [L. *supra*, above, on top, beyond, + *ren*, kidney]

1. Located above the kidney. **2.** Pert. to the gland above each kidney that secretes glucocorticoids and mineralocorticoids. SEE: *adrenal gland*.

suprascapular (soo'pră-skăp'û-lăr) [+ *scapula*, shoulder blade] Located above the scapula.

suprascleral (soo'pră-sklē'răl) [+ Gr. *skleros*, hard] Located on the surface of the sclera.

suprasellar (soo'pră-sē'l'ăr) [+ *sella*, saddle] Located above or over the sella turcica.

supraspinous fossa SEE: under *fossa*.

suprasternal (soo'pră-stēr'năl) [L. *supra*, above, on top, beyond, + Gr. *sternon*, chest] Located above the sternum.

supratentorial (soo'pră-tên-tō'rē-ăl) Located above the tentorium.

supratip (soo'pră-tip') The nasal region where the inferior region of the nasal dorsum meets the tip of the nose. Deformities sometimes occur in this area during botched rhinoplasties.

supravaginal (soo'pră-văj'i-năl) [+ *vagina*, sheath] Located above the vagina or any sheathing membrane.

supraventricular (soo'pră-vên-trik'û-lăr) [+ *ventriculus*, a little belly] Located above the ventricle, esp. the heart ventricles.

supravergence (soo'pră-vēr'jěns) [+ *vergere*, to be inclined] A condition in which one eye moves upward in the vertical plane while the other does not.

supraversion (soo'pră-vēr'zhŭn) [+ *versio*, a turning] **1.** A turning upward. **2.** In dentistry, a tooth out of occlusal line.

sura (sū'ră) [L.] The calf of the leg; the muscular posterior portion of the lower leg.

sural (sū'răl) Rel. to the calf of the leg.

surefooted (shŭr'foot'ēd) Being able to walk or run without stumbling or falling.

surface (sŭr'fēs) [Fr. *sur*, above, + L. *facies*, face] **1.** The exterior boundary of an object. **2.** The external or internal exposed portions of a hollow structure, as the outer or inner surfaces of the cranium or stomach. **3.** The face or faces of a structure such as a bone. **4.** The side of a tooth or the dental arch; usually named for the adjacent tissue or space.

The outer or facial surface is called the labial surface of the incisors or canines, and the buccal surface of the premolars and molars. The facial surface may also be called the vestibular surface. The inner surface of each tooth is called the lingual or oral surface. Within the arch, each tooth is said to have a mesial surface, the side toward the midpoint in the front of the dental arch, and a distal surface, the side of the tooth farthest from the midpoint in the front of the dental arch. SEE: *illus.*

body s. **1.** The exterior of the human body, or one of its parts. **2.** The epidermis. SEE: *body surface area*.

occlusal s. The masticating surface of the premolar and molar teeth.

support s. A brace, pillow, or mattress on which part or all of the body rests. Static support surfaces are made or filled with materials such as air, fabric, foam, or gels. Dynamic support surfaces, which are used for patients with skin breakdown, are filled with moving air, beads, or fluid that circulates by electromechanical energy.

surfactant (sŭr-făk'tânt) A surface-active agent that lowers surface tension (e.g., oils and various forms of detergents). Artificial surfactants may be given endotracheally to relieve respiratory distress.

modified natural s. A replacement phospholipid from a natural source with some components removed.

pulmonary s. A lipoprotein secreted by type II alveolar cells that decreases the surface tension of the fluid lining the alveoli, permitting expansion. Synthetic lung surfactant is available for treating patients with respiratory distress syndrome. In obstetrics, fetal production of surfactant can be stimulated by administration of a glucocorticoid 24 to 48 hr before an inevitable preterm birth. SYN: *lung surfactant*. SEE: *betamethasone*; *lecithin-sphingomyelin ratio*.

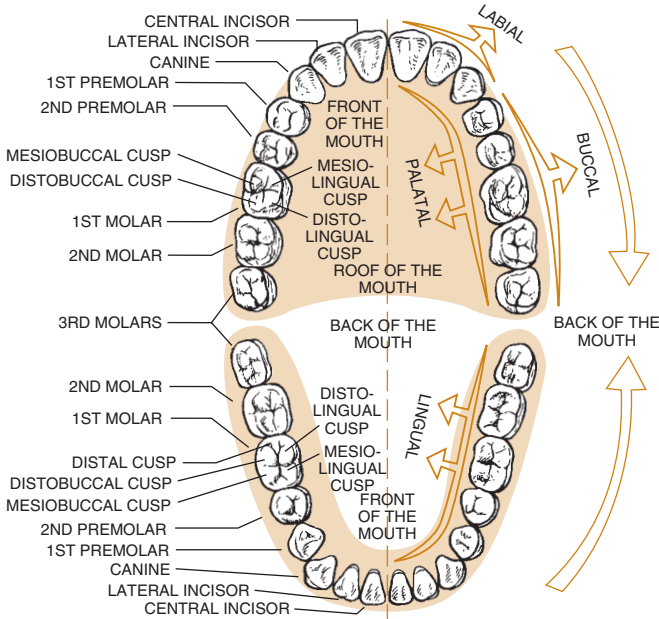
surfer's ear The formation of abnormal bone (an exostosis) in the external auditory canal of surfers, especially those who habitually surf in colder waters.

surfer's knots Nodules that form on the foot, leg, or chest as a result of trauma from repetitive contact with surfboards.

surge capacity The ability of a community or health care system to respond to sudden increases in demand for services or emergency help, e.g., after a multiple casualty incident.

surgeon (sŭr'jŭn) [L. *chirurgia*] A medical practitioner who specializes in surgery.

civil s. A physician certified by the U.S. Bureau of Citizenship and Immigration Services to perform medical examinations on immigrants seeking immigration visas to, or permanent resident status in, the U.S. The exami-



RELATIONSHIP OF DENTAL SURFACES

nation performed by civil surgeons includes a physical and mental status examination; tests for tuberculosis, syphilis, and human immunodeficiency virus; and vaccinations for measles, mumps, rubella; polio; tetanus and diphtheria; pertussis; influenza B; and hepatitis B.

ghost s. Any person, esp. one not designated by the patient or not licensed to practice surgery, who replaces the patient's chosen surgeon in performing an operation, without the patient's consent. Ghosts may include surgical residents or representatives of pharmaceutical or biomedical engineering firms. The use of ghost surgeons is a violation of professional standards and ethics.

surgeon general The chief medical officer in each branch of the armed forces of the U.S. or of the U.S. Public Health Service.

surgery (sūr'jĕr-ē) [L. *chirurgia*, hand-work, surgery] **1.** The branch of medicine dealing with manual and operative procedures for correction of deformities and defects, repair of injuries, and diagnosis and cure of certain diseases. **2.** A surgeon's operating room. **3.** Treatment or work performed by a surgeon. SYN: *operation*. SEE: *Nursing Diagnoses Appendix*.

ablative s. Operation in which a part is removed or destroyed.

aesthetic s. Cosmetic surgery.

ambulatory s. Surgery performed between the time the patient is admitted in the morning and the time the patient is discharged the same day. Also called *day surgery*.

antenatal s. Surgical procedure performed on the fetus before delivery. This type of surgery is done only at certain medical centers. SEE: *amniocentesis*; *embryoscopy*.

aseptic s. An operative procedure performed under sterile conditions.

aural s. Surgery of the ear.

bariatric s. Surgical management of morbid obesity. Commonly employed operative procedures are classified either as "restrictive" (because they decrease the size of the stomach) or "mal-absorptive" (because they limit absorption of nutrients from the gastrointestinal tract), or both restrictive and malabsorptive. They include

1. gastric banding,
2. vertical banded gastroplasty,
3. Roux-en-Y gastric bypass,
4. biliopancreatic diversion or duodenal switch, and
5. long-limb Roux-en-Y gastric bypass.

PATIENT CARE: This surgery is typically used only for those with a body mass index greater than 40 kg/m² or 35 kg/m² in the presence of other weight-related health problems, such as hypertension or diabetes mellitus. Complications may include puncture of blood

vessels or internal organs, infection, incisional hernia, wound dehiscence, or leakage from surgical sites into the peritoneum. In preparation for surgery the patient should be assessed for other major surgical risks, including the risk of heart attack, heart failure, deep vein thrombosis, atelectasis/pneumonia, or respiratory failure after the proposed operation. The patient should be made aware that an intravenous catheter, urinary catheter, and sequential compression stockings will be used to help manage complications postoperatively. Incentive spirometry is employed to prevent postoperative atelectasis.

Pain and nausea are managed with patient-controlled epidural or intravenous analgesia, and antiemetic drugs. Equipment required for obese patients undergoing bariatric surgeries includes specially sized litters, operating tables, beds, wheelchairs, blood-pressure cuffs, and gowns. The patient should begin ambulation soon after surgery to help prevent complications of immobility. Adequate staff should be available to assist with transfers and mobilization in order to prevent patient or staff injuries. Depending on the type of surgery employed, the patient may require vitamin and mineral supplementation postoperatively (e.g., with B vitamins, calcium, iron, and fat-soluble vitamins). Psychological, nutritional, and physical therapeutic support is critical to optimal outcomes. Discharge teaching emphasizes diet, hydration, wound care, medications, and prescribed or prohibited activities. The majority of treated patients have significant, sustainable postoperative weight loss, with improvement in comorbid conditions such as diabetes mellitus, hypertension, and hyperlipidemia. Following massive weight loss, some patients may require reconstructive surgery to remove excess abdominal wall fat (panniculectomy).

breast conservation s. Removal of a malignant growth from the breast and dissection of axillary lymph nodes without mastectomy. Breast conservation surgery ("lumpectomy") is an alternative to mastectomy for patients with early stage breast cancer. Its outcomes are equivalent to those of mastectomy when used as part of a treatment plan that includes postoperative radiation therapy to the affected breast.

cardiac s. Any operation on the heart and/or the proximal great vessels. SEE: *Nursing Diagnoses Appendix*.

colorectal s. Operative procedures on the anus, rectum, or large intestine.

conservative s. Surgery in which as much as possible of a part or structure is retained. It is often an equally effective alternative to radical surgery.

cosmetic s. Surgery performed to re-

verse or change the texture, configuration, or relationship of contiguous structures of a feature of the body. SYN: *aesthetic surgery*. SEE: *plastic s.*

exploratory s. An operation performed for diagnostic purposes (e.g. an exploratory laparotomy). Exploratory surgeries may become surgeries in which definitive treatment is rendered when a previously undiagnosed lesion is identified and rectified.

flap s. A surgical procedure in which a flap of tissue or periosteum is raised. An amputation flap is a tissue flap produced to cover the amputation stump.

image-guided s. The use of real-time computed tomography, magnetic resonance imagery, or ultrasound to place surgical instruments in precise anatomical locations (e.g., during biopsies or tissue resections). Images taken before the operation are compared with those obtained during surgery to improve the localization of tumors or vascular structures, the placement of prosthetic parts, or the identification of moving structures.

intestinal bypass s. The production of controlled intestinal malabsorption by surgically short-circuiting the small intestine. This procedure is used to treat massive obesity. It is done by anastomosing the proximal jejunum to the distal ileum by bypassing the small intestine between the anastomotic sites. The lengths of jejunum and ileum involved vary by surgeon. Because of long-term metabolic complications (including hepatic injury), this procedure has largely been abandoned in favor of gastric bypass procedures.

laparoscopic s. A form of endoscopic surgery in which a fiberoptic laparoscope is inserted into the body to inspect, resect, or otherwise surgically treat a wide and expanding variety of conditions. Small incisions (ports) are created to insert required instrumentation. In "assisted" laparoscopic procedures, a smaller than standard ancillary incision may be necessary for removal of large specimens or to perform various surgical maneuvers. A laparoscopic surgery may also be used to complement other procedures (e.g., vaginal hysterectomy). Under certain circumstances (e.g., hemorrhage or dense adhesions) the laparoscopic procedure cannot be completed. Operating time is longer and equipment is more expensive in laparoscopic surgery than in laparotomy, but the convalescence of patients who have undergone laparoscopic procedures is shorter, and pain, nausea, vomiting, and obstipation are diminished. Common operations performed with a laparoscope include cholecystectomy, appendectomy, colonic surgery, hernia repairs (including hiatal hernias),

and many gynecological surgeries. SEE: *laparoscopic laser cholecystectomy*.

laryngeal framework s. Thyroplasty.

lung volume reduction s. The removal of emphysematous lung tissue (esp. inelastic air spaces in the upper lobes of the lungs) to enhance the ability of the rest of the lung to expand and contract. This procedure improves respiratory function for many patients with advanced chronic obstructive lung disease although the long-term benefits of its use are uncertain.

major s. An operation risking a potential hazard and disruption of physiological function (e.g., entering a body cavity, excision of large tumors, amputation of a large body part, insertion of a prosthesis, open heart procedures). All surgeries are potentially dangerous and may involve a risk to life.

manipulative s. Use of manipulation in surgery or bone-setting.

maxillofacial s. The branch of dental practice and/or plastic surgery that deals with the diagnosis and the surgical and adjunctive treatment of diseases, injuries, and defects of the mouth and dental structures. This was formerly called oral or dental surgery. SYN: *oral surgery*.

minor s. A simple operation not involving a major body cavity or structure and usually causing little disruption of the patient's physiological status. As with all surgery, there is some risk of injury or death.

muco gingival s. A plastic surgical method for correcting diseases of the gingiva and adjacent oral mucosa.

open heart s. Surgery involving direct visualization and surgical procedure of the exposed heart.

oral s. Maxillofacial s.

orthopedic s. Surgical prevention and correction of musculoskeletal deformities and/or injuries.

palliative s. Surgery for the relief of symptoms or improvement in quality of life, usually in patients with incurable illness.

plastic s. Surgery for the repair or restoration of defective or missing structures, frequently involving the transfer of tissue from one part to another and sometimes including the use of prosthetic materials. SEE: *cosmetic s.*; *tissue expansion, soft*.

radical s. An operation to remove a large amount of damaged or neoplastic tissue and/or adjoining areas of lymphatic drainage so as to obtain a complete cure. This is in contrast to conservative surgery.

reconstructive s. An operation to repair a loss or defect or to restore function.

second-look s. Surgery some months after the original operation for cancer to

detect possible recurrences. Second-look procedures are also performed on a more immediate basis (e.g., within hours of the initial surgery) when vascular injuries created by the initial operation or condition are suspected. Occasionally, an endoscopic second look may be performed instead of an open surgical procedure.

subtotal s. An operation in which only a portion of the organ is removed (e.g., subtotal removal of the thyroid gland).

transsphenoidal s. Surgery on the pituitary gland, performed with an incision made through the base of the sphenoid sinus. It is typically performed through the nasal passages or the oral cavity for removal of a macroadenoma of the pituitary gland in patients with acromegaly, prolactinomas, or other pituitary tumors.

surgery, antimicrobial prophylaxis in

The use of antibiotics before, and sometimes during, procedures that are prolonged or involve potential risk of infection. This practice has been shown to prevent infectious complications in colorectal surgery, gynecological and obstetric surgeries, and some cardiac, cancer, and orthopedic procedures. The type of antibiotic administered depends on the surgical procedure. This practice is best suited to procedures involving contaminated areas or implantation of prosthetic material. SEE: *antibiotic resistance*.

surgical (sūr'jī-kāl) Of the nature of or pert. to surgery.

surgical dressing A sterile protective covering of gauze or other substance applied to an operative wound.

surgical field The visible, palpable area in which an operation takes place. This field is prepared and covered to maintain sterility during operations.

surgical neck of humerus The constricted part of the shaft of the humerus below the tuberosities; commonly the site of fracture. Surgery is often indicated because of potential compromise of the density of neurovascular structures in this region.

surgical recovery, delayed Extension of the number of postoperative days required to initiate and perform activities that maintain life, health, and well-being. SEE: *Nursing Diagnoses Appendix*.

surgical resident A physician who is enrolled in a hospital-based training program to complete the requirements for board certification in a surgical specialty.

surgical technologist A technologist who assists in many operating room functions, including preparing the patient for surgery, ensuring the sterility of the operating room, operating equipment

during surgery, and, in some instances, working as a surgical first assistant.

surname (sūr'nām) The family name, as distinguished from the individual's given or Christian name. In some societies, the surname is written first.

surprise test A test designed to identify anterior shoulder instability. The relocation test for anterior glenohumeral instability is performed. SEE: *relocation test*. While the patient's glenohumeral joint is externally rotated, the examiner suddenly removes the posteriorly directed stabilizing force. A positive test is marked by the patient expressing pain and/or apprehension.

surrender (sūr-ēn'dēr) [O.Fr. *surrendre*] Giving up a health care professional license, e.g., at retirement or as a means of resolving a disciplinary action brought forward by a health care supervisory board.

surrogate (sūr'ō-gāt) [L. *surrogatus*, substituted] 1. Something or someone replacing another; a substitute, esp. an emotional substitute for another. 2. In psychoanalysis, the representation of one whose identity is concealed from conscious recognition as in a dream; a figure of importance may represent one's loved one.

sex s. A professional sex partner employed to assist persons with sexual dysfunction.

surrogate father A man who serves as a substitute father for a child's biological father. SEE: *parenting, surrogate*.

surrogate mother SEE: *under mother*.

sursumduction (sūr'sūm-dūk'shūn) [L. *sursum*, upward, + *ducere*, to lead] Elevation, as the power or act of turning an eye upward independently of the other one.

sursumvergence (sūr'sūm-vēr'jēns) [+ *vergere*, to turn] An upward turning of the eyes to maintain single binocular vision.

sursumversion (sūr'sūm-vēr'zhūn) [+ *versio*, turning] The process of turning upward; simultaneous movement of both eyes upward.

surveillance (sūr-vāl'āns) In health care, the monitoring of a disease, condition, epidemic, risk factor, or physiological function.

disease s. In epidemiology and public health, the identification of index patients and their contacts; the detection of outbreaks and epidemics; the determination of the incidence and demographics of an illness; and the policy making that may prevent further spreading of a disease.

immunological s. The theory that the immune system destroys some malignant cells as they grow in the body. Support for this theory is found in research data that show tumor cells killed by cytotoxic T lymphocytes, natural

killer cells, and perhaps, activated macrophages. SEE: *natural killer cell*.

postmarketing s. The review of adverse reactions to drugs and medical technologies that occurs after these agents are released for sale and use. Nurses, pharmacists, physicians, and other practitioners participate in this process by recording their observations on the adverse effects of drugs to the Food and Drug Administration, which accumulates this survey data and issues warnings to practitioners when needed.

survey 1. The study of a particular disease or condition, esp. its epidemiological aspects. **2.** In emergency care, the rapid and careful assessment of a patient's respiratory, circulatory, and neurological status. The *primary* survey focuses on the patency of a patient's airway, respiratory effort, circulation and cardiac rhythm, and neurological disability. The patient is then undressed or exposed, with environmental protection given to prevent hypothermia. In a *secondary* survey the stabilized patient is examined thoroughly for other conditions that may need prompt care.

survey 1. Continuing to live, esp. under conditions in which death would be the expected outcome.

PATIENT CARE: Health care professionals are sometimes asked by patients or their families how long a patient may be expected to live, because he or she has a serious illness or has already reached an advanced age. Even in intensive care units, predicting how long some one may live is difficult. Some illnesses (e.g., widely metastatic breast or lung cancers) leave a patient with weeks or months of life. Some traumas (e.g., gunshot wounds to the brain, heart, or great vessels) confer a survival of hours or less. A patient who is not responding to resuscitative efforts can be expected to live for minutes. For patients who are not at the extremes of illness or injury, several predictive tools can be used to provide crude estimates of survival. The Karnofsky Performance Scale, the Palliative Prognostic Indicator, and the Palliative Performance Scale, for example, can be used to gauge survival in grave illnesses. For average members of the population, the Center for Disease Control and Prevention (National Center for Health Statistics) publishes tables that estimate the life expectancy of Americans based on their current age.

graft s. Persistent functioning of a transplanted organ or tissue in a recipient of that organ. Survival rates of transplanted organs are influenced by many factors, including the age and health status of both the donor and the recipient of the graft, the immunological match between the donor and the recip-

ient, the preparation of the organ before transplantation, and the use of immunosuppressive drugs. For some organ transplantation, graft survival approximates 90%.

Surviving Sepsis Campaign An international effort to reduce mortality from sepsis. It is a joint undertaking of the European Society of Intensive Care Medicine, the International Sepsis Forum, and the Society of Critical Care Medicine.

survivor (sür-viv'ër) An individual who has experienced a serious illness or injury and lived through it (and/or its treatment). In the U.S., for example, in 2005 there were more than 10 million people living after the diagnosis and treatment of cancer.

survivor guilt A grief reaction marked by feelings of depression, loss, or responsibility experienced by persons who have survived an event in which others have lost their lives (e.g., a war, holocaust, or epidemic illness).

survivorship care (sür-viv'ër-shíp") A plan for patient follow-up that links the treatments a patient has received from an oncologist and the needs of the patient after intensive cancer treatments have been completed. With about 10 million cancer survivors in the U.S., and that number constantly on the rise, survivors are living longer and receiving more fragmented care. A follow-up care plan helps communicate to the patient and his or her future health care providers details of cancer staging, treatment, and disease surveillance that may otherwise be misunderstood or neglected. According to the Institute of Medicine, such a plan should include the following elements: 1. A clear, concisely written statement of the patient's diagnosis, the methods used in treatment (what specific chemotherapeutic drugs, e.g., and what doses of radiation), and the expected or potential effects of that treatment; 2. Detailed information about the need for specific follow-up services and a timetable specifying when such services should be delivered; 3. Information about secondary disease prevention (including the detection of cancer recurrence and the need for monitoring for secondary cancers); 4. Information about the availability of support services and agencies in the patient's community; 5. Information for the patient about legal protections after diagnosis, including employment and insurance.

Survivor care plans are often drawn up and given to patients by medical oncologists or advanced practice nurses. They should address nutritional concerns; activity, exercise and mobility concerns; elimination; cognition and perception; pain and discomfort; sleep and rest; self-perception; relationships

with spouse, parents, children, other family, and friends; coping; and sexuality and reproductive issues.

susceptibility (süs-sép'ti-bil'ÿ-tē) The degree to which a person is prone to disease or persuasion.

susceptible (sü-sép'ti-bl) [L. *susceptibilis*, capable of receiving] 1. Having little resistance to a disease or foreign protein. 2. Easily impressed or influenced.

sushi (soo'shē) A traditional Japanese food made of raw fish, usually wrapped in a soft rice shell. Some raw fish contain adults or larvae of the nematodes of the family Anisakidae. In order to prevent these organisms from infecting persons who eat raw fish, the U.S. Food and Drug Administration has directed that prior to serving, the fish must be suddenly frozen to -31°F (-34.4°C) or below for 15 hr, or held in a commercial freezer at -4°F (-20°C) for 24 hr. After that period, the fish may be thawed and served. SEE: *anisakiasis*.

sushi domain An amino acid sequence that creates a specific protein conformation in a polypeptide.

suspended (süs-pënd'éd) [L. *suspendere*, to hang up] 1. Hanging. 2. Temporarily inactive.

suspension (süs-pën'shün) [L. *suspensio*, a hanging] 1. A condition of temporary cessation, as of any vital process. 2. Treatment using a hanging support to immobilize a body part in a desired position. 3. The state of a solid when its particles are mixed with, but not dissolved in, a fluid or another solid; also a substance in this state.

cephalic s. The supported suspension of a patient by the head to extend the vertebral column.

colloid s. A colloidal solution in which particles of the dispersed phase are relatively large. SYN: *suspensoid*.

tendon s. Fixation of a tendon. SYN: *tenodesis*.

suspensoid (süs-pën'soyd) [" + Gr. *eidōs*, form, shape] Colloid suspension.

suspensory (süs-pën'sō-rē) [L. *suspensorius*, hanging] 1. Supporting a part, as a muscle, ligament, or bone. 2. A structure that supports a part. 3. A bandage or sac for supporting or compressing a part, esp. the scrotum.

suspuration (süs'pür-ä'shün) [L. *suspurationis*] A sigh or the act of sighing.

suspirious (süs-pür-rē-üs) [L. *suspirare*, to sigh] Breathing with apparent effort; sighing.

sustentacular (süs'tën-täk'ü-lär) [L. *sustentaculum*, support] Supporting; upholding.

sustentacular cell A supporting cell such as those found in the acoustic macula, organ of Corti, olfactory epithelium, taste buds, or testes. Those in the testes secrete the hormone inhibin and are

also called *Sertoli cells*. SEE: *Sertoli cell*.

sustentacular fibers of Müller [Friedrich von Müller, Ger. physician, 1858–1941] Fibers forming the supporting framework of the retina.

sustentaculum (sūs'tĕn-tāk'ū-lŭm) *pl. sustentacula* [L.] A supporting structure.

s. hepatis A fold of peritoneum upon which rests the right margin of the liver.

s. tali A process of the calcaneum that supports part of the talus.

sutalains (soo'tī-lāns) Proteolytic enzymes derived from the bacterium *Bacillus subtilis*. Calculated on the dry basis, they contain not less than 2,500,000 USP casein units. They are used in ointment form to débride necrotic lesions, such as burns.



This product should be kept away from the eyes.

Sutton's disease (süt'ŏnz) [Richard L. Sutton, Sr., U.S. dermatologist, 1878–1952] Halo nevus.

Sutton's disease (süt'ŏnz) [Richard L. Sutton, Jr., U.S. dermatologist, b. 1908] Granuloma fissuratum.

Sutton's law A method of diagnostic reasoning that states one should look for diseases where they are most likely to be (e.g., malaria in tropical areas that harbor *Anopheles* mosquitoes; atherosclerosis in patients who are smokers, hypertensives, or diabetics). The law is attributed to Willie Sutton, a U.S. bank robber, who, when asked why he robbed banks, said, "Because that's where the money is."

sutura (sū-tū'rā) *pl. suturae* [L., a seam] 1. Suture (1). 2. Any kind of suture. SEE: *synarthrosis*.

sutural (sū-tū-rāl) [L. *sutura*, a seam] Rel. to a suture.

suturation (sū'tū-rā'shŭn) The application of sutures; stitching.

suture (sū'chŭr) [L. *sutura*, a seam]

1. The line of union in an immovable articulation, as those between the skull bones; also such an articulation itself. SYN: *sutura*. SEE: *raphe*; *synarthrosis*.

2. An operation in which soft tissues of the body are united by stitching them together. 3. The thread, wire, or other material used to stitch parts of the body together. 4. The seam or line of union formed by surgical stitches. 5. To unite by stitching.

absorbable surgical s. A sterile strand prepared from collagen derived from healthy mammals or from a synthetic polymer. This type of suture is absorbed and thus does not need to be removed.

apposition s. The suture in the su-

perficial layers of the skin in order to produce precise apposition of the edges.

approximation s. A deep suture for joining the deep tissues of a wound.

basilar s. The suture between the occipital bone and sphenoid bone that persists until the 16th to 18th year as the anteroposterior growth center of the base of the skull; also called *spheno-occipital synchondrosis*.

bifrontal s. The suture between the frontal and parietal bones.

biparietal s. The suture between the two parietal bones.

buried s. A suture placed so that it is completely covered by skin or other surrounding tissue.

button s. A suture in which the threads are passed through buttons or other prosthetic material on the surface and tied to prevent the suture material from cutting into the skin. SEE: *quilled s.*

catgut s. A suture material made from the sterilized submucosa of the small intestine of sheep. Eventually it is absorbed by body fluids. Treatment with chromium trioxide (chromic catgut) or other chemicals delays the absorption time.

coaptation s. A preliminarily placed suture to approximate wound edges before definitive closure.

cobbler's s. A suture in which the thread has a needle at each end. Also known as double-armed suture.

continuous s. The closure of a wound by means of one continuous thread, usually by transfixing one edge of the wound and then the other alternately from within outward in a variety of techniques. SYN: *uninterrupted suture*.

coronal s. A suture between the frontal and parietal bones.

cranial s. One of the sutures between the bones of the skull.

dentate s. An osseous suture consisting of long and toothlike processes.

ethmoidofrontal s. A suture between the ethmoid and frontal bones.

ethmoidolacrimal s. A suture between the ethmoid and lacrimal bones.

false s. A junction of opposing bones in which fibrous union has not occurred.

figure-of-eight s. A suture shaped like the figure eight.

frontal s. An occasional suture in the frontal bone from the sagittal suture to the root of the nose. SYN: *mediofrontal suture*; *metopic suture*.

frontomalar s. A suture between the frontal and malar bones.

frontomaxillary s. A suture between the frontal bone and superior maxilla.

frontonasal s. A suture between the frontal bones and the nasal bones.

frontotemporal s. A suture between the frontal and temporal bones.

glover's s. Locking suture.

Halsted's s. SEE: *Halsted's suture*.

harmonic s. A suture in which there is simple apposition of bone.

intermaxillary s. A suture between the superior maxillae.

internasal s. A suture between the nasal bones.

interparietal s. Sagittal s.

interrupted s. A suture formed by single stitches inserted separately, the needle usually being passed through one lip of the wound from without inward and through the other from within outward.

lambdoid s. A suture between the parietal bones and the two superior borders of the occipital bone. SYN: *occipital suture*; *occipitoparietal suture*.

locking s. A continuous suture in which the needle is passed through the loop of the preceding stitch; more commonly referred to as a locking suture. SYN: *glover's suture*.

longitudinal s. Sagittal s.

mediofrontal s. Frontal s.

metopic s. Frontal s.

nasomaxillary s. A suture between the nasal bone and superior maxilla.

nonabsorbable s. A suture made from a material that is not absorbed by the body, such as silk, polymers, cotton, or wire. These sutures ultimately are removed or are placed in tissue deep to the skin where their presence will have minimal long-term consequences.

occipital s. Lambdoid s.

occipitomastoid s. A suture between the occipital bone and the mastoid portion of the temporal bone. The occipitomastoid and lambdoid sutures meet at the asterion. SYN: *temporo-occipital suture*.

occipitoparietal s. Lambdoid s.

palatine s. A suture between the palatine bones.

palatine transverse s. A suture between the palatine processes and superior maxilla.

parietal s. Sagittal s.

parietomastoid s. A suture between the parietal bone and the mastoid portion of the temporal bone.

petro-occipital s. A suture between the petrous portion of the temporal bone and the occipital bone.

petrosphenoidal s. A suture between the petrous portion of the temporal bone and the ala magna of the sphenoid bone.

purse-string s. A suture entering and exiting around the periphery of a circular opening. Drawing the suture taut closes the opening.

quilled s. An interrupted suture in which a double thread is passed deep into the tissues below the bottom of the wound, the needle being withdrawn so as to leave a loop hanging from one lip of the wound and the two free ends of

the thread from the other. A quill, or more commonly a piece of bougie, is passed through the loops, which are tightened upon it, and the free ends of each separate thread are tied together over a second quill. The purpose of a quilled suture is prevention of tearing when tension becomes greater. Polymeric wound bridges have supplanted the use of quills and catheter segments. SEE: *relief s.*; *button s.*

relaxation s. A suture that may be loosened to relieve excessive tension.

relief s. A suture used primarily in abdominal wound closures to bring large margins of the wound close together to relieve tension and to provide protection to the primary wound closure; more commonly called a retention suture. These sutures are made of heavy-grade material and are tied over wound bridges or tubes of latex to avoid injury to the wound.

right-angled s. A suture used in sewing intestine. The needle is passed in the same direction as the long axis of the incision, and the process is repeated on the opposite side of the incision, the suture being continuous.

sagittal s. A suture between the two parietal bones. SYN: *interparietal suture*; *longitudinal suture*; *parietal suture*.

serrated s. An articulation by suture in which there is an interlocking of bones by small projections and indentations resembling sawlike teeth.

shotted s. A suture in which both ends of a wire or silkworm gut are passed through a perforated shot that is then compressed tightly over them in lieu of tying a knot.

silk s. A suture made of silk. It may be twisted, braided, or floss.

sphenofrontal s. The articulation between the greater wing of the sphenoid bone and the frontal bone.

sphenoparietal s. The articulation between the greater wing of the sphenoid bone and the parietal bone. The pterion of the skull is a region at the posterior end of this suture.

sphenosquamous s. An articulation of the great wing of the sphenoid with the squamous portion of the temporal bone.

sphenotemporal s. A suture between the sphenoid and temporal bones.

squamoparietal s. A suture between the parietal bone and squamous portions of the temporal bone.

squamosphenoidal s. A suture between the squamous portion of the temporal bone and great wing of the sphenoid bone.

squamous s. The junction of the temporal and parietal bones.

subcuticular s. A buried (usually) continuous suture in which the needle

is passed horizontally under the epidermis into the cutis vera, emerging at the edge of the wound but beneath the skin, then in a similar manner passed through the cutis vera of the opposite side of the wound, and so on until the other angle of the wound is reached.

temporo-occipital s. Occipitomas-toid s.

temporoparietal s. The suture between the temporal and parietal bones.

tension s. A suture used to reduce the pull on the edges of a wound.

twisted s. A suture in which pins are passed through the opposite lips of a wound and material is wound about the pins, crossing them first at one end and then at the other in a figure-of-eight fashion, thus holding the lips of the wound firmly together.

uninterrupted s. Continuous s.

vertical mattress s. An interrupted suture in which a deep stitch is taken and the needle inserted upon the same side as that from which it emerged, and passed back through both immediate margins of the wound. The suture is then tied to the free end on the side the needle originally entered. This suture is primarily used in closing the skin.

wire s. A suture of varying gauges of metal (usually stainless steel) that may be used in a wide variety of applications, including wound closure, intestinal repair, and the repair of sternotomies.

Sv *sievert*.

Svedberg (svēd'bürg, bër-ē) [Theodor Svedberg, Swedish chemist, 1884–1971] ABBR: S. The sedimentation rate of a centrifuged particle. One Svedberg equals 10^{-13} s.

Svo₂ *mixed venous oxygen saturation*.

SVV *Stroke volume variability*.

swab (swāb) [Dutch *suabbe*, mop]

1. Cotton or gauze on the end of a slender stick, used for cleansing cavities, applying remedies, or obtaining a piece of tissue or secretion for bacteriological examination. **2.** To wipe with a swab.

urethral s. A slender rod for holding cotton used in examinations with the speculum, in treating ulcers, or removing secretions. The male urethral swab is a rod about 7 in. (17.8 cm) long.

uterine s. A slender flattened wire, a plain rod, or one with coarse thread on the distal end for absorbing or wiping away discharges.

swage (swāj) **1.** To shape metal, esp. around something in order to make a close fit. **2.** Fusing a suture to a needle.

swager (swāj'ēr) A dental tool or device used to shape silver amalgam or gold by applying pressure from different directions simultaneously.

Swain, Mary Ann Price (swān) A U.S. nursing theorist who, along with Helen Erickson and Evelyn Tomlin, developed and published the grand nursing theory

of Modeling and Role Modeling. SEE: *Theory of Modeling and Role Modeling*.

swallow (swāl'ō) [AS. *swelgan*] To cause or enable the passage of something from the mouth through the throat and esophagus into the stomach by muscular action. SYN: *deglutition*.

swallowed blood syndrome A condition in which blood in an infant's stool reflects ingestion of maternal blood, either during delivery or during breastfeeding (from a bleeding nipple fissure). SEE: *APT test*.

swallowing (swāl'ō-ing) A complicated act, usually initiated voluntarily but always completed reflexively, whereby food is moved from the mouth through the pharynx and esophagus to the stomach. It occurs in the following three stages. SYN: *deglutition*.

In the *first stage*, food is placed on the surface of the tongue. The tip of the tongue is placed against the hard palate; then elevation of the larynx and backward movement of the tongue forces food through the isthmus of the fauces in the pharynx.

In the *second stage*, the food passes through the pharynx. This involves constriction of the walls of the pharynx, backward bending of the epiglottis, and an upward and forward movement of the larynx and trachea. This may be observed externally with the bobbing of the Adam's apple. Food is kept from entering the nasal cavity by elevation of the soft palate and from entering the larynx by closure of the glottis and backward inclination of the epiglottis. During this stage, respiratory movements are inhibited by reflex.

In the *third stage*, food moves down the esophagus and into the stomach. This movement is accomplished by momentum from the second stage, peristaltic contractions, and gravity. With the body in an upright position, liquids pass rapidly and do not require assistance from the esophagus. However, second-stage momentum and peristaltic contractions are sufficient to allow liquids to be drunk even when the head is lower than the stomach.

Difficulty in swallowing is called dysphagia. SEE: *dysphagia*.

air s. Voluntary or involuntary swallowing of air. It occurs involuntarily in infants as a result of improper feeding. Adults may swallow air during eating or drinking.

impaired s. Abnormal functioning of the swallowing mechanism associated with deficits in oral, pharyngeal, or esophageal structure or function. SEE: *Nursing Diagnoses Appendix*.

tongue s. SEE: under *tongue-swallowing*.

Swan-Ganz catheter (swān'gānz) [Harold James Swan, U.S. physician, b.

1922; William Ganz, U.S. physician, b. 1919] A soft, flexible catheter that is inserted into the pulmonary artery of patients in shock or acute pulmonary edema to determine intracardiac pressures, oxygen saturation, and other hemodynamic parameters.



Its use may produce bleeding, vessel rupture, dysrhythmias, and other life-threatening complications.

swan-neck deformity A finger deformity marked by flexion of the distal interphalangeal joints and hyperextension of the proximal interphalangeal joints, often seen in rheumatoid arthritis.

swarming (sworm'ing) The spread of bacteria over a culture medium.

sway, postural Forward and backward movement of the body with motion occurring around the ankle joints when the feet are fixed on the floor. Backward sway is controlled by the anterior tibialis, quadriceps, and abdominal muscles; forward sway is controlled by the gastrocnemius, hamstring, and paraspinal muscles. Patients with lesions of the dorsal and lateral columns of the central nervous system exhibit increased postural sway when they close their eyes and may fall down if they are not supported.

sway-back (swā'bāk) A slouched posture in which the pelvis is shifted forward and the thorax posteriorly. Lordosis occurs in the lower lumbar spinal region; a compensating reversal to kyphosis occurs in the upper lumbar and thoracic regions. **SEE: illus.**

sweat (swēt) [AS. *sweatan*] **1.** Perspiration. **2.** The condition of perspiring or of being made to perspire freely, as to order a sweat for a patient. **3.** To emit moisture through the skin's pores. **SYN:** *perspire*.

It is a colorless, slightly turbid, salty, aqueous fluid, although that from the sweat glands in the axillae, around the anus, and of the ceruminous glands has an oily consistency. It contains urea, fatty substances, and sodium chloride. This salty, watery fluid is difficult to collect without contamination with sebum. Perspiration is controlled by the sympathetic nervous system through true secretory fibers supplying sweat glands.

FUNCTION: Sweat cools the body by evaporation and rids it of what waste may be expressed through the pores of the skin. The daily amount is about a liter; this figure is subject to extreme variation according to physical activity and atmospheric conditions, and in hot conditions may be as much as 10 to 15 L in 24 hr.

bloody s. Hemathidrosis.

colliquative s. Profuse, clammy sweat.



SWAY-BACK

colored s. Chromidrosis.

fetid s. Bromidrosis.

night s. **SEE:** *night sweat*.

profuse s. Hyperhidrosis.

scanty s. Anhidrosis.

sweating (swēt'ing) [AS. *swat*, sweat]

1. The act of exuding sweat. **2.** Emitting sweat. **3.** Causing profuse sweat.

deficiency of s. Anhidrosis.

excessive s. Hyperhidrosis.

gustatory s. Sweating and flushing over the distribution of the auriculotemporal nerve in response to chewing.

insensible s. Insensible perspiration.

sensible s. The production of moisture on the skin by means of the secretions of the sweat glands.

urinous s. Uridrosis.

sweat test Pilocarpine iontophoresis.

Swedish gymnastics **SEE:** under *gymnastics*.

sweep (swēp) To clear debris away, e.g., from the mouth during resuscitation. **SEE:** *finger sweep*.

sweet [AS. *swete*, sweet] **1.** Pleasing to the taste or smell. **SEE:** *taste*. **2.** Containing or derived from sugar. **3.** Free from excess of acid, sulfur, or corrosive salts.

sweetener, artificial A chemical compound (e.g., saccharin or aspartame) that tastes sweet but has no available calories. Artificial sweeteners are used in foods and candies as sugar substitutes (e.g., for the overweight or diabetic).

Sweet's syndrome (swĕts) [R. D. Sweet, contemporary Brit. physician] A febrile illness with raised painful plaques on the limbs, face, and neck; neutrophilic leukocytosis; and dense neutrophilic infiltrates in the skin lesions. It responds promptly to treatment with glucocorticoids. Although the cause is unknown, the condition is often associated with the administration of drugs (such as hydralazine or sulfa drugs) and occasionally is found in persons with connective tissue diseases, hematological malignancies, or inflammatory bowel disease.

swelling (swĕl'ing) [AS. *swellan*, swollen] An abnormal transient enlargement, esp. one appearing on the surface of the body. Ice applied to the area helps to limit swelling. SEE: *edema*.

albuminous s. Cloudy s.

brain s. Brain edema.

Calabar s. A swelling occurring in infestations by the nematode *Loa loa*. Temporary and painless, the swelling is thought to be the result of temporary sensitization. SYN: *fugitive swelling*.

cloudy s. A degeneration of tissues marked by a cloudy appearance, swelling, and the appearance of tiny albuminoid granules in the cells as observed with a microscope. SYN: *albuminous swelling*.

fugitive s. Calabar s.

glassy s. A swelling occurring in amyloid degeneration of tissues. SEE: *amyloid degeneration*.

white s. A swelling seen in tuberculous arthritis, esp. of the knee.

Swift's disease (swifts) Acrodyemia.

swimmer's ear SEE: *under ear*.

swing bed A hospital bed that can be used either for acute care needs or for skilled nursing as conditions dictate.

swinging flashlight test A test used to detect a relative afferent pupillary defect or Marcus Gunn pupil. Direct light is shone into the normal eye; both pupils constrict equally due to the consensual response. Light is quickly swung over to the contralateral pupil, which appears to dilate as a result of a relative decrease in the optic nerve fiber function in the affected eye. This response is seen in asymmetrical optic nerve diseases such as glaucoma, optic neuropathy, and optic neuritis.

Swiss ball An inflatable vinyl or rubber ball, used in exercise training, rehabilitation, and sports, e.g., to treat low back pain or to strengthen the muscles of the abdomen and chest. They are also

known as *balance*, *fitness*, or *stability balls*.

swiss cheese cartilage syndrome Kniest's dysplasia.

switch (swich) [MD. *swijch*, bough] 1. A device used to break or open an electrical circuit or to divert a current from one conductor to another. 2. An assistive technology device used as an input device for a microcomputer. Types of adaptive switches include those activated by the tongue, eyelids, voice, movements of the head and trunk, and gross hand movements.

foot s. A foot-activated electrical switch that enables the operator to use both hands in the application of an electrical device (e.g., light source, electro-surgical unit, drill).

pole-changing s. A switch by which the polarity of a circuit may be reversed.

swoon [AS. *swogan*, to suffocate] To faint.

sycosiform (sī-kō'sī-form) [Gr. *sykosis*, figlike disease, + L. *forma*, shape] Resembling sycosis.

sycosis (sī-kō'sīs) [Gr. *sykosos*, figlike disease] A chronic inflammation of the hair follicles.

SYMPTOMS: The patient has inflammation of hairy areas of the body marked by an aggregation of papules and pustules, each of which is pierced by a hair. The pustules show no disposition to rupture but dry to form yellow-brown crusts. There is itching and burning. If the disease persists, it may lead to extreme destruction of hair follicles and permanent alopecia. The disease is curable with prolonged treatment, and relapses do occur. *Staphylococcus aureus* and *S. epidermidis* entering through hair follicles cause the disease. Trauma and disability are predisposing factors.

s. barbae Sycosis of the beard marked by papules and pustules perforated by hairs and surrounded by infiltrated skin.

lupoid s. A pustular lesion of the hair follicles of the beard.

Sydenham's chorea (sīd'ĕn-hăzm) [Thomas Sydenham, Brit. physician, 1624–1689] A rare neurological syndrome that is associated with acute rheumatic fever, marked by dancing movements of the muscles of the trunk and extremities, anxiety and other psychological symptoms, and, occasionally, cognitive disorders. It is seen infrequently in Western societies because of the prompt and effective treatment of most cases of strep throat.

TREATMENT: Benzodiazepines, such as diazepam or lorazepam, are given to limit the choreiform movements. Penicillin or another appropriate antibiotic is given to eradicate the streptococcal infection causing the rheumatic fever.

PROGNOSIS: Recovery usually occurs

within 2 to 3 months. Relapses, esp. in young women, may occur when oral contraceptives are used or during pregnancy. Other complications, such as congestive heart failure or death, may result from the carditis that accompanies rheumatic fever. SYN: *chorea minor*.

syllabic utterance (sī-lāb'ik) [Gr. *syllabikos*] A staccato accentuation of syllables, slowly but separately, observed in patients with multiple sclerosis. SEE: *scanning speech*.

syllable stumbling (sīl'ā-bl) [Gr. *syllabe*, syllable] Hesitating utterance (dysphasia) with difficulty in pronouncing certain syllables.

syllabus (sīl'ā-būs) [Gr. *syllabos*, table of contents] An abstract of a lecture or outline of a course of study or of a book.

sylvian aqueduct (sīl'vē-ān) [François (Franciscus del la Boë) Sylvius, Dutch anatomist, 1614–1672] A narrow canal from the third to the fourth ventricle.

sylvian fissure [François Sylvius] SEE: *fissure of Sylvius*.

sym- [Gr. *syn*, together] Combining form meaning *with, along, together with, beside*.

sympallophone (sīm-bāl'ō-fōn) [ʹ + *ballein*, to throw, + *phone*, sound] A special stethoscope with two chest pieces. Its use assists in locating a lesion in the chest by comparing the different sounds detected by the two chest pieces.

symbiont, symbiont (sīm'bē-ōn, -bē-ōnt) [Gr. *syn*, together, + *bios*, life] An organism that lives with another in a state of symbiosis.

symbiosis (sīm'bē-ō'sīs) [Gr.] **1.** The living together in close association of two organisms of different species. If neither organism is harmed, this is called *commensalism*; if the association is beneficial to both, *mutualism*; if one is harmed and the other benefits, *parasitism*. **2.** In psychiatry, a dependent, mutually reinforcing relationship between two persons. In a healthy context, it is characteristic of the infant-mother relationship. In an unhealthy context, it may accentuate shared depression or paranoia.

symbiote (sīm'bi-ōt) [Gr. *syn*, together, + *bios*, life] An organism symbiotic with another.

symbiotic (sīm'bi-ōt'ik) Concerning symbiosis.

symbblepharon (sīm-blēf'ā-rōn) [ʹ + *blepharon*, eyelid] An adhesion between the conjunctivae of the lid and the eyeball, typically caused by burns with acids or bases, surgical trauma, or inadequately treated infections; also caused by Stevens-Johnson syndrome, pemphigoid, and trachoma. The adhesions are surgically lysed to permit free movement and use of the affected eye.

symbblepharopterygium (sīm-blēf'ā-rō-

tēr-ij'ē-ūm) [ʹ + ʹ + *pterygion*, wing] The abnormal joining of the eyelid to the eyeball.

symbol (sīm'bōl) [Gr. *symbolon*, a sign]

1. An object or sign that represents an idea or quality by association, resemblance, or convention. **2.** In psychoanalytical theory, an object used as an unconscious substitute that is not connected consciously with the libido, but into which the libido is concentrated. **3.** A mark or letter representing an atom or an element in chemistry.

phallic s. An object that bears some resemblance to the penis.

symbolia (sīm-bō'lē-ā) The ability to identify or recognize an object by the sense of touch.

symbolism (sīm'bōl'izm) [ʹ + *-ismos*, condition] **1.** The unconscious substitutive expression of subconscious thoughts of sexual significance in terms recognized by the objective consciousness. **2.** An abnormal condition in which everything that occurs is interpreted as a symbol of the patient's own thoughts.

symbolization (sīm'bōl-ī-zā'shūn) An unconscious process by which an object or idea comes to represent another object or idea on the basis of similarity or association.

sympbrachydactyly (sīm-brāk'ē-dāk'tī-lē) [ʹ + *brachys*, short, + *daktylos*, finger] The webbing of abnormally short fingers.

Syme's operation (sīmz) [James Syme, Scottish surgeon, 1799–1870] **1.** Amputation of the foot at the ankle joint with removal of the malleoli. **2.** Excision of the tongue. **3.** External urethrotomy.

symmetry (sīm'ēt-rē) Correspondence in shape, size, and relative position of parts on opposite sides of a body.

bilateral s. Symmetry of an organism or body whose right and left halves are mirror images of each other or in which a median longitudinal section divides the organism or body into equivalent right and left halves. SYN: *bilateralism*.

radial s. Symmetry of an organism whose parts radiate from a central axis.

sympathectomize (sīm'pā-thēk'tō-mīz) To perform a sympathectomy.

sympathectomy (sīm'pā-thēk'tō-mē) [Gr. *sympathetikos*, sympathy, + *ektome*, excision] Excision of a portion of the sympathetic division of the autonomic nervous system, used, e.g., to treat refractory sweating of the palms or feet, or Raynaud's phenomenon. It may include a nerve, plexus, ganglion, or a series of ganglia of the sympathetic trunk. SYN: *sympathicectomy*.

chemical s. The use of drugs to destroy or temporarily inactivate part of the sympathetic nervous system.

periarterial s. Removal of the sheath of an artery in which sympathetic nerve

fibers are located; used in trophic disturbances.

sympatheoneuritis (sīm-pāth"ē-ō-nū-rī'tis) [" + *neuron*, nerve, + *itis*, inflammation] An inflammation of the sympathetic nerve.

sympathetic (sīm-pā-thēt'ik) **1.** Pert. to the sympathetic nervous system. **2.** Caused by or pert. to sympathy.

sympatheticalgia (sīm-pā-thēt'ī-kāl'jē-ā) [" + *algos*, pain] Pain in the cervical sympathetic ganglion.

sympathetic nervous system The thoracolumbar division of the autonomic nervous system. Preganglionic fibers originate in the thoracic and lumbar segments of the spinal cord and synapse with postganglionic neurons in the sympathetic ganglia. Most of these ganglia are in two chains lateral to the backbone, and others are within the trunk; postganglionic fibers extend to the organs innervated. Some effects of sympathetic stimulation are increased heart rate, dilation of the bronchioles, dilation of the pupils, vasoconstriction in the skin and viscera, vasodilation in the skeletal muscles, slowing of peristalsis, conversion of glycogen to glucose by the liver, and secretion of epinephrine and norepinephrine by the adrenal medulla. Sympathetic effects are general rather than specific and prepare the body to cope with stressful situations. SEE: *autonomic nervous system* for ill. and table; *parasympathetic nervous system*.

sympatheticoparalytic (sīm-pā-thēt'ī-kō-pār'ā-lit'ik) [" + *paralysis*, a loosening at the sides] Resulting from paralysis of the sympathetic nervous system.

sympatheticopathy (sīm-pā-thēt'ī-kōp'ā-thē) [" + *pathos*, disease, suffering] Any condition resulting from a disorder of the sympathetic nervous system.

sympathetic ophthalmia Granulomatous inflammation of the uvea (choroid, ciliary body, and iris) as a complication of penetrating injury. Similar inflammation can occur in the unaffected eye (sympathizing eye).

sympatheticotonia (sīm-pā-thēt'ī-kō-tō'nē-ā) [" + *tonos*, act of stretching, tension] A condition marked by excessive tone of the sympathetic nervous system with unusually high blood pressure, fine tremor of the hands, and insomnia; the opposite of vagotonia. It may be present in thyrotoxic patients.

sympathetic plexus One of the plexuses formed at intervals by the sympathetic nerves and ganglia.

sympathicectomy (sīm-pāth'ī-sēk'tō-mē) [" + *ektome*, excision] Sympathicectomy.

sympathicolytic Sympatholytic.

sympathiconneuritis (sīm-pāth'ī-kō-nū-rī'tis) [" + *neuron*, nerve, + *itis*, in-

flammation] An inflammation of the sympathetic nerves.

sympathicopathy (sīm-pāth'ī-kōp'ā-thē) [" + *pathos*, disease, suffering] A disease or disordered function caused by a malfunction of the autonomic nervous system.

sympathicotripsy (sīm-pāth'ī-kō-trīp'sē) [" + *tripsis*, a crushing] The crushing of a sympathetic ganglion.

sympathicotropic (sīm-pāth'ī-kō-trōp'ik) [" + *tropos*, a turning] Having a special affinity for the sympathetic nerve.

sympathoadrenal (sīm-pāth-ō-ā-drē'nāl) [" + *L. ad*, to, + *ren*, kidney] Concerning the sympathetic part of the autonomic nervous system and the adrenal medulla.

sympathoblastoma (sīm-pāth-ō-blās-tō'mā) [" + " + *oma*, tumor] A malignant tumor made up of sympathetic nerve cells.

sympathogonia (sīm-pā-thō-gō'nē-ā) [" + *gone*, seed] The embryonic cells from which sympathetic nervous system cells are derived.

sympatholytic (sīm-pāth-ō-līt'ik) Interfering with, opposing, inhibiting, or destroying impulses from the sympathetic nervous system. SYN: *adrenolytic*; *sympathicolytic*.

sympathomimetic (sīm-pā-thō-mīm-ēt'ik) [" + *mimetikos*, imitating] Adrenergic; producing effects resembling those resulting from stimulation of the sympathetic nervous system, such as effects following the injection of epinephrine.

sympathy (sīm-pā-thē) [Gr. *sympatheia*] **1.** An association or feeling of closeness between individuals such that something that affects one affects the other. SEE: *empathy*. **2.** In biology, something that affects one of a paired organ influencing the other. The mechanism of this interaction is not always clearly understood.

sympexion (sīm-pēks'ē-ōn) [Gr. *sympexis*, concretion] A calcified mass in certain sites such as the prostate or seminal vesicles.

sympchalangism (sīm-fāl'ān-jizm) [Gr. *syn*, together, + *phalanx*, closely knit row] **1.** An ankylosis of the joints of the fingers or toes. **2.** A web-fingered or web-toed condition.

sympyogenetic (sīm-fē-ō-jē-nēt'ik) [Gr. *syn*, together, + *phyein*, to grow, + *gennan*, to produce] Concerning the combined effect of heredity and environment upon the development and function of an organism.

sympyseal (sīm-fiz'ē-āl) [Gr. *sympy-sis*, growing together] Pert. to symphy-sis.

sympyseotomy, symphysiectomy, symphysiotomy (sīm-fiz'ē-ōt'ō-mē) [" + *tome*, incision] A section of the symphysis pubis to enlarge the pelvic di-

ameters during delivery. SYN: *pubiotomy*.

symplyision (sĭm-fĭz'ĕ-ŏn) [Gr. *symplyisis*, growing together] The most anterior point of the alveolar process of the lower jaw.

symplyiorrhaphy (sĭm-fĭz'ĕ-or'ă-fĕ) [*r* + *rhaphe*, seam, ridge] The surgical repair of a divided symphyis.

symplyiotome (sĭm-fĭz'ĕ-ŏ-tŏm) [*r* + *tome*, incision] An instrument for dividing a symphyis.

symplyis (sĭm'fĭ-sĭs) *pl.* **symplyises** [Gr., growing together] **1.** A line of fusion between two bones that are separate in early development, as symphyis of the mandible. **2.** A joint in which two bones are connected only by a fibrocartilaginous pad, as the pubic symphyis and the intervertebral disks. SEE: *cartilaginous joint*.

s. of jaw An anterior, median, vertical ridge on the outer surface of the lower jaw representing a line of union of its halves.

s. pubis The junction of the pubic bones on the midline in front; the bony eminence under the pubic hair.

sympodia (sĭm-pŏ'dĕ-ă) [*r* + *pous*, foot] A fusion of the lower extremities.

sympporter (sĭm-por'tĕr) A membrane protein that carries two different ions or molecules in the same direction through the membrane, as in the absorption of glucose linked with that of sodium ions in the small intestine.

symptom (sĭm'tŭm, sĭmp-) [Gr. *symplytoma*, occurrence] Any change in the body or its functions as perceived by the patient. A symptom represents the subjective experience of disease. Symptoms are described by patients in their complaint or history of the present illness. By contrast, signs are the objective findings observed by health care providers during the examination of patients.

Aspects of general symptom analysis include the following: *onset*: date, manner (gradual or sudden), and precipitating factors; *characteristics*: character, location, radiation, severity, timing, aggravating or relieving factors, and associated symptoms; *course since onset*: incidence, progress, and effects of therapy.

accessory s. A minor symptom, or a nonpathognomonic one.

accidental s. A symptom occurring incidentally during the course of a disease but having no relationship to the disease.

alarm s. A symptom that raises the concern that a patient may have a severe illness and requires careful evaluation. For example, in patients with digestive illnesses, findings such as anemia, anorexia, bleeding, dehydration, fever, weight loss, or a family history of cancer or inflammatory bowel

disease are considered alarm symptoms.

cardinal s. A fundamental symptom of a disease.

constitutional s. A symptom (e.g., fever, malaise, loss of appetite) caused by or indicating systemic disease.

dissociation s. Anesthesia to heat, cold, and pain without loss of tactile sensibility; seen in syringomyelia.

focal s. A symptom caused by a lesion to a specific body part or a particular location in the central or peripheral nervous system. SYN: *local symptom*.

general s. Constitutional s.

indirect s. A symptom occurring secondarily as a result of a disease in another organ system or body part.

labyrinthine s. A group of symptoms (e.g., tinnitus, vertigo, or nausea) indicating a disease or lesion of the inner ear.

local s. Focal s.

s. management An approach to palliative care that treats the symptoms rather than the cause of a condition. Its focus includes confusion, dizziness, fatigue, incontinence, nausea, shortness of breath, vomiting, and weakness.

negative pathognomonic s. A symptom that never occurs in a certain disease or condition; hence, a symptom whose presence rules out the existence of that disease.

objective s. A symptom apparent to the observer. SEE: *sign* (2).

passive s. Static s.

pathognomonic s. A symptom that is unmistakably associated with a particular disease.

presenting s. The symptom that led the patient to seek medical care.

prodromal s. Prodrome.

rational s. Subjective s.

signal s. A symptom that is premonitory of an impending condition such as the aura that precedes an attack of epilepsy or migraine.

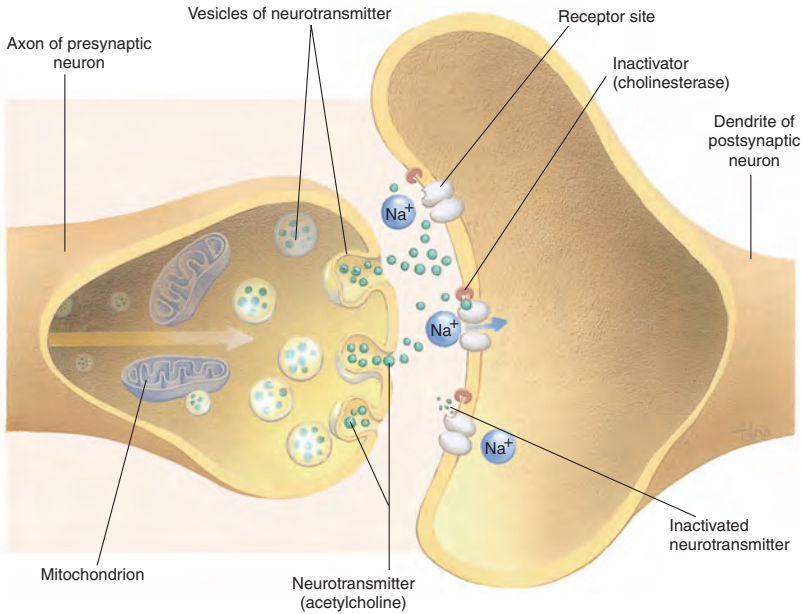
static s. A symptom pert. to the condition of a single organ or structure without reference to the remainder of the body. SYN: *passive symptom*.

subjective s. A symptom apparent only to the patient. SYN: *rational symptom*.

supratentorial s. A symptom due to psychological rather than organic causes. The term is slang and refers to symptoms with causes originating "above the tentorium cerebelli" (i.e., in the brain rather than in the body).

sympathetic s. A symptom for which there is no specific inciting cause and usually occurring at a point more or less remote from the point of disturbance. SEE: *sympathy* (1).

withdrawal s. Any of the symptoms that follow the sudden discontinuation of the use of a substance to which a per-



SYNAPSE

Transmission at an excitatory synapse (arrow indicates direction of impulse)

son has become addicted. SEE: *withdrawal syndrome*.

symptomatic (sĭmp"tō-măt'ĭk) [Gr. *sympmatikos*] Of the nature of or concerning a symptom.

symptomatic treatment Treatment directed toward constitutional symptoms, such as fever, shock, and pain.

symptomatology (sĭmp"tō-măt'ō-jē) [Gr. *sympnoma*, symptom, + *logos*, word, reason] **1.** The science of symptoms and indications. **2.** All of the symptoms of a given disease as a whole.

symptom complex Syndrome.

symptom inventory A list of findings or patterns common to particular illnesses or diseases, e.g., psychological illnesses, traumatic injuries, or neoplastic diseases. Symptom inventories are used to assess or screen patients, to assign them to treatment groups, and to randomize groups of individuals by their similarities or differences so that they may be compared in research.

syn- [Gr., together] Prefix meaning *joined, together*. SEE: *con-*.

synalgitic (sĭn-ăl'ĭk) Pert. to or marked by referred pain.

Synanciidae (sĭ-năn'sĭ-dē, sĭ'ī-) [NL] The family of bottom-dwelling, spiny fish that includes the stonefish, a toxic marine animal.

synanthropic (sĭn-ăn-thrōp'ĭk) [" + "] Living in a close association with humans.

synapse (sĭn'ăps) [Gr. *synapsis*, point of contact] The space between the junction of two neurons in a neural pathway, where the termination of the axon of one neuron comes into close proximity with the cell body or dendrites of another. The electrical impulse traveling along a presynaptic neuron to the end of its axon releases a chemical neurotransmitter that stimulates or inhibits an electrical impulse in the postsynaptic neuron; synaptic transmission is in one direction only. Synapses are susceptible to fatigue, offer a resistance to the passage of impulses, and are markedly susceptible to the effects of oxygen deficiency, anesthetics, and other agents, including therapeutic drugs and toxic chemicals. SYN: *synapsis* (1). SEE: *illius*.

axodendritic s. The synapse between an axon of one neuron and the dendrites of another.

axosomatic s. The synapse between the axon of one neuron and the cell body of another.

synapsis (sĭn-ăp'sĭs) [Gr., point of contact] The process of first maturation division in gametogenesis, in which there is conjugation of pairs of homologous chromosomes forming double or bivalent chromosomes. In the resulting meiotic division, the chromosome number is reduced from the diploid to the haploid number. It is at this stage that crossing over occurs.

synaptic (sī-năp'tík) Pert. to a synapse or synopsis.

synaptology (sîn'ăp-tŏl'ŏ-jē) [" + *logos*, word, reason] The study of synapses.

synarthrodial (sîn'ăr-thrŏ'dē-ăl) Pert. to a synarthrosis.

synarthrophysis (sîn'ăr-thrŏ-fi'sis) [" + *arthron*, joint, + *physis*, growth] A progressive ankylosis of joints.

synarthrosis (sîn'ăr-thrŏ'sis) [" + *arthron*, joint, + *osis*, condition] A type of immovable joint with fibrous connective tissue or cartilage between the bone surfaces. Movement is absent or limited, and a joint cavity is lacking. It includes the synchondrosis, suture, and syndesmosis types of joints.

syncanthus (sîn-kăn'thūs) [" + *kanthos*, angle] An adhesion of the eyeball to the structures of the orbit.

synchiria (sîn-kī'rē-ă) [" + *cheir*, hand] A rare disorder in which a stimulus applied to one side of the body is felt on both sides. SEE: *achiria*; *allochiria*; *dyschiria*.

synchondroseotomy (sîn'kŏn-drŏ'sē-ŏt'ŏ-mē) [" + *chondros*, cartilage, + *tome*, incision] An operation of cutting through the sacroiliac ligaments and closing the arch of the pubes in the congenital absence of the anterior wall of the bladder (exstrophy).

synchondrosis (sîn'kŏn-drŏ'sis) [" + " + *osis*, condition] An immovable joint having surfaces between the bones connected by cartilages. This may be temporary, in which case the cartilage eventually becomes ossified, or permanent. SYN: *symphysis cartilaginosa*.

synchondrotomy (sîn-kŏn-drŏt'ŏ-mē) [" + " + *tome*, incision] **1.** The division of articulating cartilage of a synchondrosis. **2.** A section of the symphysis pubis to facilitate childbirth. SYN: *symphyseotomy*.

synchorial (sîn-kŏ'rē-ăl) [" + *chorion*, chorion] Pert. to multiple fetuses that share a single placenta.

synchronism Synchrony.

synchronous communication A mode of communication between parties in which messages and responses are exchanged immediately. An example of synchronous communication is talking by telephone.

synchrony (sîng'krŏ-nē) The simultaneous occurrence of separate events. SYN: synchronism. **synchronous**, *adj.*

synchrotron (sîng'kră-trŏn") A particle accelerator used in medical imaging that accelerates positively or negatively charged particles.

synchysis (sîn'kīs-īs) [Gr., confound] The fluid state of the vitreous of the eye.

syncinesis (sîn'sin-ē'sis) [" + *kinesis*, movement] An involuntary movement produced in association with a voluntary one.

imitative s. An involuntary movement occurring on the sound side when a movement is attempted on the paralyzed side.

spasmodic s. Syncinesis occurring on the paralyzed side when muscles of the opposite side are voluntarily moved.

synclinal (sîn-klī'năl) [Gr. *synklinein*, to lean together] Inclined in the same direction toward a point.

synclitism (sîn'klit-izm) [Gr. *synklinein*, to lean together, + *-ismos*, condition] Parallelism between the planes of the fetal head and those of the maternal pelvis.

synclonus (sîn'klŏ-nūs) [" + *klonos*, turmoil] **1.** The simultaneous clonic contraction of several muscles. **2.** A disease marked by muscular spasms.

syncope (sîn'kŏ-pē) [Gr. *synkope*, fainting] Transient (and usually sudden) loss of consciousness, accompanied by an inability to maintain an upright posture. Syncope occurs commonly; it results in about 1% to 6% of all hospital admissions in the U.S. **syncopeal**, *adj.*

ETIOLOGY: The most frequent causes of syncope are vasovagal (the common fainting spell), cardiogenic (esp. arrhythmogenic, valvular, or ischemic), orthostatic (e.g., due to dehydration or hemorrhage), and neurogenic (e.g., due to seizures). Many medications (e.g., sedatives, tranquilizers, excessive doses of insulin, and others), hypoglycemia, hyperventilation, massive pulmonary embolism, aortic dissection, atrial myxoma, carotid sinus hypersensitivity, coughing, urination, and psychiatric disease can also result in loss of consciousness.

SYMPTOMS: The patient typically complains of having suffered a sudden and unexpected fall to the ground, with loss of awareness, and then rapid recovery of orientation. Lacerations, abrasions, or other injuries occasionally result from the fall.

DIAGNOSIS: The history may contain useful clues. For example, if the patient stood up just before losing consciousness, an orthostatic cause is likely; if a patient is confused or disoriented for a long time after losing consciousness, seizures are probable; if a young patient passes out while at a wedding or other stressful event, vasovagal syncope is likely. The diabetic patient who becomes agitated and sweaty before passing out should be rapidly assessed and treated for low blood sugar.

The examination of the patient may reveal the cause; e.g., a loud aortic murmur may point to valvular heart disease, and a pale patient with orthostatic vital signs may be dehydrated or bleeding. Electrocardiographic monitoring may reveal arrhythmias or evidence of ischemia. Depending on clinical circum-

stances, further evaluation may include carotid sinus massage, tilt-table testing, echocardiography, or psychiatric evaluation. In most cases, despite thorough evaluation, a precise diagnosis is not determined.

PATIENT CARE: Any person with sudden loss of consciousness should be placed in a supine position, preferably with the head low to facilitate blood flow to the brain. At the same time, a clear airway should be ensured. Clothing must be loosened, esp. if collar is tight.

Fainting (one form of syncope) usually is of short duration and is counteracted by placing the person supine. If recovery from fainting is not prompt and complete, a prompt assessment of airway, breathing, circulation, and cardiac rhythm is needed; assistance should be obtained and the person transported to a hospital. A person who refuses hospital evaluation after recovering from a fainting episode should be encouraged to be examined by a physician as soon as possible.

cardiac s. Syncope of cardiac origin as in Stokes-Adams syndrome, aortic stenosis, tachycardia, bradycardia, or myocardial infarction.

carotid sinus s. Syncope resulting from pressure on, or hypersensitivity of, the carotid sinus. It may result from turning the head to one side or from wearing too tight a collar.

convulsive s. Loss of consciousness followed by a seizure. It may be caused by any condition (e.g., cardiac arrhythmia) that results in inadequate blood flow to the brain.

defecation s. Loss of consciousness during or immediately after a bowel movement.

deglutition s. Fainting triggered by swallowing, an abnormal reflex in which stimulation of the esophagus elicits vagal motor impulses that cause bradycardia, peripheral vasodilation, and hypotension.

hysterical s. Syncope resulting from a conversion reaction.

laryngeal s. Brief unconsciousness following coughing and tickling in the throat.

local s. Numbness of a part with sudden blanching, as of the fingers; a symptom of Raynaud's disease or of local asphyxia.

micturition s. The abrupt loss of consciousness during urination. It usually occurs in men who get up at night to urinate and is mediated by an increase in vagal tone.

neurocardiogenic s. Vasodepressor syncope.

shallow water s. Loss of consciousness during diving that occurs when a diver hyperventilates and then holds his breath while swimming underwater

for an extended period before resurfacing. The loss of consciousness may result in drowning or near-drowning.

situational s. Loss of consciousness that occurs only in certain distinct clinical circumstances (e.g., after urinating, coughing, or having a bowel movement). It is sometimes associated with inadequate return of blood to the right side of the heart, Valsalva maneuver, or increased parasympathetic tone.

tussive s. Fainting following a paroxysm of coughing. SYN: *laryngeal vertigo*.

vasodepressor s. The common fainting spell.

SYMPTOMS: The patient, who may have just experienced a stressful or emotionally upsetting event, reports a feeling of wooziness, nausea, and weakness, followed often by a feeling that darkness is closing in on him. A ringing in the ears may follow, along with inability to maintain an erect posture. Witnesses may report profuse sweating or a loss of color in the face. During the event, an unusually slow pulse may be present. Several convulsive movements of the body may be noted if blood flow to the brain is inadequate but the loss of consciousness is not accompanied by other signs of seizures (e.g., tongue biting, incontinence, or a prolonged postictal period of confusion).

PATIENT CARE: Placing the patient in a sitting position with the head lowered between the legs or in a horizontal or Trendelenburg position restores blood flow to the brain and promptly aborts the attack. A brief examination should be performed to make sure the affected person can move all extremities and facial muscles and can speak clearly and understand speech. The carotid arteries should be checked for bruits, and the heart for evidence of arrhythmia or heart murmurs. Blood pressure, pulse, and oxygenation, as well as cardiac rhythm, should be monitored. Fluids should be administered by mouth if nausea has resolved, or by vein if the patient cannot take liquids orally and has an intravenous access in place. An electrocardiogram should be obtained or cardiac monitoring ordered if the patient has a history of cardiac disease, is elderly, or has multiple risk factors for cardiac disease or dysrhythmias. A complete blood count, serum electrolytes, BUN, creatinine, and glucose should be checked. Before the patient is allowed to get up again, vital signs should be checked; if they are normal, the patient should be assisted first to a sitting position and then to a standing position before he walks independently. Patients who faint may need specialized follow-up examination, e.g., with a cardiologist, internist, or neurologist. SYN: *va-*

sovagal syncope; neurocardiogenic syncope.

vasovagal s. Vasodepressor s.

syncretio (sĭn-křĕ'shĕ-ō) [L.] The development of adhesions between opposing inflamed surfaces.

syncytial (sĭn-sĭ'shāl) Of the nature of a syncytium.

syncytioma (sĭn'sit'ĕ-ō'mā) [" + " + *oma*, tumor] A tumor of the chorion. SYN: *deciduoma*.

s. benignum A mole.

syncytiotrophoblast (sĭn-sit'ĕ-ō-trō'fō-blāst) [" + " + *trophe*, nourishment, + *blastos*, germ] The outer layer of cells covering the chorionic villi of the placenta. These cells are in contact with the maternal blood or decidua.

syncytium (sĭn-sit'ĕ-ūm) [" + *kytos*, cell] **1.** A multinucleated mass of protoplasm such as a striated muscle fiber. **2.** A group of cells in which the protoplasm of one cell is continuous with that of adjoining cells such as the mesenchyme cells of the embryo. SYN: *coenocyte*.

syndactylism Syndactyly.

syndactyly (sĭn-dāk'tĭ-lĕ) The fusion, usually congenital, of one or more fingers or toes SYN: syndactylism. **syndactylous** (-lūs), *adj.*

syndectomy (sĭn-dĕk'tō-mĕ) [" + *dein*, to bind, + *ektome*, excision] The excision of a circular strip of the conjunctiva around the cornea to relieve panus. SYN: *peritomy* (1).

syndemic (sĭn-dĕm'ĭk) [" + analogy with *endemic*, *epidemic*] A network of health problems, esp. ones that share common social underpinnings and cause an increased public health burden on a community. An example of a syndemic is the linkage between the ready availability of snack foods, low socioeconomic status, sedentariness, overeating, obesity, and an increased risk of diabetes mellitus and coronary artery disease.

syndesis (sĭn-dĕ'sis) [" + *desis*, binding] **1.** The condition of being bound together. **2.** Surgical fixation or ankylosis of a joint.

syndesmectomy (sĭn'dĕs-mĕk'tō-mĕ) [Gr. *syndesmos*, ligament, + *ektome*, excision] The excision of a section of a ligament.

syndesmectopia (sĭn'dĕs-mĕk-tō'pĕ-ā) [" + *ektos*, out of place] An abnormal position of a ligament.

syndesmitis (sĭn'dĕs-mĭ'tĭs) [" + *itis*, inflammation] **1.** An inflammation of a ligament or ligaments. **2.** An inflammation of the conjunctiva.

syndesmochorial (sĭn'dĕs'mō-kor'ĕ-āl) Pert. to a type of placenta found in ungulates (e.g., sheep and goats) in which there is destruction of the surface layer of the uterine mucosa, thus allowing

chorionic villi to come into direct contact with maternal blood vessels.

syndesmography (sĭn-dĕs-mōg'rā-fĕ) [Gr. *syndesmos*, ligament, + *graphein*, to write] A treatise on the ligaments.

syndesmology (sĭn'dĕs-mōl'ō-jĕ) [" + *logos*, word, reason] The study of the ligaments, joints, their movements, and their disorders.

syndesmoma (sĭn'dĕs-mō'mā) [" + *oma*, tumor] A connective tissue tumor.

syndesmopexy (sĭn-dĕs'mō-pĕk'sĕ) [" + *pexis*, fixation] Joining of two ligaments or fixation of a ligament in a new place, used in correction of a dislocation.

syndesmophyte (sĭn-dĕs'mō-fit) [" + *phyton*, plant] **1.** A bony bridge formed between adjacent vertebrae. **2.** A bony outgrowth from a ligament.

syndesmoplasty (sĭn-dĕs'mō-plās'tĕ) [" + *plassein*, to form] Plastic surgery on a ligament.

syndesmorrhaphy (sĭn'dĕs-mor'ā-fĕ) [" + *rhaphe*, seam, ridge] The repair or suture of a ligament.

syndesmosis (sĭn'dĕs-mō'sis) *pl.* **syndesmoses** [Gr. *syndesmos*, ligament, + *osis*, condition] An articulation in which the bones are united by ligaments.

syndesmotomy (sĭn'dĕs-mōt'ō-mĕ) [" + *tome*, incision] The surgical section of ligaments.

syndrome (sĭn'drōm) [Gr., a running together] A group of symptoms, signs, laboratory findings, and physiological disturbances that are linked by a common anatomical, biochemical, or pathological history. Particular syndromes are listed under the first word. SEE: e.g., *carpal tunnel syndrome; irritable bowel syndrome; toxic shock syndrome*. SYN: *symptom complex*. SEE: *disease; disorder*. **syndromic** (sĭn-drōm'ĭk), *adj.*

syndrome of inappropriate antidiuretic hormone ABBR: SIADH. A syndrome of increased ADH activity in spite of reduced plasma osmolarity. Often first suggested by a relative hyponatremia, it is most commonly associated with disorders of the central nervous system, various tumors, anxiety, pain, pneumonia, and drugs.

syndrome X The presence of four interrelated atherosclerotic risk factors: insulin resistance, hypertension, hyperlipidemia, and obesity. SYN: *dysmetabolic syndrome; metabolic syndrome*.

synechia (sĭn-ĕk'ĕ-ā) *pl.* **synechia** [Gr. *synecheia*, continuity] An adhesion of parts, esp. adhesion of the iris to the lens and cornea.

annular s. An adhesion of the iris to the lens throughout its entire pupillary margin.

anterior s. An adhesion of the iris to the cornea.

peripheral anterior s. Adhesion between the iris and periphery of the cor-

nea (PAS); usually near the anterior chamber angle. Can cause glaucoma by blocking the outflow of aqueous. Caused by inflammation

posterior s. An adhesion of the iris to the capsule of the lens.

total s. An adhesion of the entire surface of the iris to the lens.

s. vulvae Fusion of the vulvae, usually congenital.

synchotomy (sīn'ĕk-ōt'ō-mē) [" + *tome*, incision] The division of a synchchia or adhesion.

synchtenterotomy (sīn'ĕk-tĕn'tĕr-ōt'ō-mē) [" + *enteron*, intestine, + *tome*, incision] The division of an intestinal adhesion.

synecology (sīn'ĕ-kōl'ō-jē) [Gr. *syn*, together, + *oikos*, house, + *logos*, word, reason] The study of organisms in relationship to their environment in group form.

synencephalocele (sīn'ĕn-sĕf'ā-lō-sĕl') [" + *enkephalos*, brain, + *kele*, tumor, swelling] An encephalocele with adhesions to adjacent structures.

syneresis (sīn-ĕr'ĕ-sīs) [Gr. *synairesis*, drawing together] The contraction of a gel resulting in its separation from the liquid, as a shrinkage of fibrin when blood clots.

synergetic (sīn'ĕr-jĕt'ĭk) [Gr. *syn*, together, + *ergon*, work] Exhibiting cooperative action, said of certain muscles; working together. SYN: *synergic*.

synergia (sīn-ĕr'jĕ-ā) The association and correlation of the activity of synergetic muscle groups.

synergic (sīn-ĕr'jĭk) [" + *ergon*, work] Rel. to or exhibiting cooperation, as certain muscles. SYN: *synergetic*.

synergist (sīn'ĕr-jĭst) **1.** A remedy that acts to enhance the action of another. SYN: *adjuvant*. **2.** A muscle or organ functioning in cooperation with another, as the flexor muscles; the opposite of antagonist.

synergistic (sīn'ĕr-jĭs'tĭk) **1.** Concerning synergy. **2.** Acting together.

synergy, synergism (sīn'ĕr-jĕ) [Gr. *synergia*] An action of two or more agents, muscles, or organs working with each other, cooperatively.

synergy patterns Primitive movements that dominate reflex and voluntary effort when spasticity is present following a cerebrovascular accident. They interfere with coordinated voluntary movements such as eating, dressing, and walking. *Flexion synergy patterns* include scapular retraction, shoulder abduction and external rotation, elbow flexion, forearm supination, and wrist and finger flexion in the upper extremity; and hip flexion, abduction and external rotation, knee flexion, and ankle dorsiflexion in the lower extremity. *Extension synergy patterns* include scapular protraction, shoulder adduction and

internal rotation, elbow extension, forearm pronation, and wrist and finger flexion in the upper extremity; and hip extension, adduction and internal rotation, knee extension, ankle plantar flexion and inversion, and toe flexion in the lower extremity.

synesthesia (sīn'ĕs-thĕ'zĕ-ā) [Gr. *syn*, together, + *aisthesis*, sensation] **1.** A sensation in one area from a stimulus applied to another part. **2.** A subjective sensation of a sense other than the one being stimulated. Hearing a sound may also produce the sensation of smell. SEE: *phonism*.

s. algica Painful synesthesia.

synesthesialgia (sīn'ĕs-thĕ-zĕ-āl'jĕ-ā) [" + " + *algos*, pain] A painful sensation giving rise to one of different character. SEE: *synesthesia*.

Syngamus (sīn'gā-mūs) A genus of nematodes parasitic in the respiratory tract of birds and mammals. The preferred name for the mammalian parasite is *Mammomonogamus*. Bird parasites have retained the name *Syngamus*.

S. laryngeus The former name for *Mammomonogamus laryngeus*.

syngamy (sīn'gā-mē) [Gr. *syn*, together, + *gamos*, marriage] **1.** Sexual reproduction. **2.** The final stage of fertilization in which the haploid chromosome sets from the male and female gametes come together following breakdown of the pronuclear membranes to form the zygote. SYN: *sexual reproduction*.

syngeneic (sīn-jĕ-nĕ'ĭk) Descriptive of individuals or cells without detectable tissue incompatibility. Strains of mice that are inbred for a great number of generations become syngeneic. Identical twins may be syngeneic.

syngensis (sīn-jĕn'ĕ-sīs) [" + *genesis*, generation, birth] Arising from the germ cells derived from both parents, rather than from a single cell from one parent.

syngnathia (sīn-nā'thĕ-ā) [" + *gnathos*, jaw] Congenital adhesions between the jaws.

synizesis (sīn'ĭ-zĕ'sīs) [Gr. *synizesis*] **1.** An occlusion or shutting. **2.** A clumping of nuclear chromatin during the prophase of mitosis.

syngaryon (sīn-kār'ĕ-ōn) [Gr. *syn*, together, + *karyon*, kernel] A nucleus resulting from fusion of two pronuclei.

synkinesis (sīn'ki-nĕ'sīs) [" + *kinesis*, movement] An involuntary movement of one part occurring simultaneously with reflex or voluntary movement of another part.

imitative s. An involuntary movement in a healthy or normal muscle accompanying an attempted movement of a paralyzed muscle on the opposite side.

synnecrosis (sīn'nĕ-krō'sīs) [" + *nekrosis*, state of death] The condition of association between groups or individ-

uals that causes mutual inhibition or death.

synonym (sīn'ō-nīm) [Gr. *synonymon*] ABBR: syn. One of two words that have the same or very similar meaning; an additional or substitute name for the same disease, sign, symptom, or anatomical structure.

synophrys (sīn-ōf'rīs) [Gr. *syn*, together, + *ophrys*, eyebrow] Fusion of the eyebrows above the bridge of the nose.

synphthalmia A congenital anomaly in which the eyes are incompletely separated (i.e., in which there is extreme hypotelorism). SEE: *cyclopia*.

synopsis (sīn-ōp'sis) [Gr.] A summary; a general review of the whole.

synoptophore (sīn-ōp'tō-for) [" + *ops*, sight, + *phoros*, bearing] An apparatus for diagnosis and treatment of strabismus. SYN: *synoptoscope*.

synoptoscope (sīn-ōp'tō-skōp) [" + " + *skopein*, to examine] Synoptophore.

synorchidism, synorchism (sīn-or'kīd-izm, -kīzm) [" + *orchis*, testicle, + *-ismos*, condition] The union or partial fusion of the testicles.

synoscheos (sīn-ōs'kē-ōs) [" + *oscheon*, scrotum] An adhesion between the penis and scrotum.

synosteology (sīn'ōs-tē-ōl'ō-jē) [" + " + *logos*, word, reason] The branch of medical science concerned with joints and articulations.

synosteosis (sīn'ōs-tē-ō'sis) Synostosis.

synosteotomy (sīn'ōs-tē-ōt'ō-mē) [" + *osteon*, bone, + *tome*, incision] Dissection of joints.

synostosis (sīn'ōs-tō'sis) *pl. synostoses* [" + " + *osis*, condition] 1. Articulation by osseous tissue of adjacent bones. 2. Union of separate bones by osseous tissue. SYN: *synosteosis*.

synostotic (sīn'ōs-tōt'ik) [" + " + *osis*, condition] Concerning synostosis.

synotia (sīn-ō'shē-ā) [" + *ous*, ear] The union of, or approximation of, the ears occurring in embryonic development, usually associated with absence or incomplete development of the lower jaw.

synotus (sī-nō'tūs) [" + *ous*, ear] A fetus with synotia.

synovectomy (sīn'ō-vēk'tō-mē) [L. *synovia*, joint fluid, + Gr. *ektome*, excision] Excision of the synovial membrane.

synovia (sīn-ō'vē-ā) [L.] Synovial fluid.

synovial (sīn-ō'vē-āl) Pert. to synovia, the lubricating fluid of the joints.

synovial bursa Bursa.

synovial crypt Diverticulum of a synovial membrane of a joint.

synovial fluid Clear viscid lubricating fluid of the joint, bursae, and tendon sheaths, secreted by the synovial membrane of a joint. It contains mucin, albumin, fat, and electrolytes. SYN: *synovia*. SEE: *joint, synovial*.

synovial fold One of the smooth folds of

synovial membrane on the inner surface of the joint capsule. SYN: *plica, synovial*.

synovial villi Slender avascular processes on the free surface of a synovial membrane projecting into the joint cavity.

synovioma (sīn'ō-vē-ō'mā) [L. *synovia*, joint fluid, + Gr. *oma*, tumor] A tumor arising from a synovial membrane.

synoviosarcoma [+ Gr. *sarx*, flesh + *oma*, tumor] A rare malignant tumor that arises from synovial cells, i.e., the cells of the membranes that enclose joints.

synovitis (sīn'ō-vī'tis) [" + Gr. *itis*, inflammation] Inflammation of a synovial membrane. Inflammation may be the result of an aseptic wound, rheumatologic diseases, infections, a subcutaneous injury (contusion or sprain), irritation produced by damaged cartilage, overuse, or trauma. SYN: *osteosynovitis*. SEE: *Nursing Diagnoses Appendix*.

SYMPTOMS: The joint is painful, much more so on motion, esp. at night. It is swollen and tense. The condition may fluctuate. In synovitis of the knee, the patella is floated up from the condyles, and it can be readily depressed, to rise again when pressure is taken off. The part is never in full extension, as this increases the pain. Skin, which is very sensitive to pressure only at certain points, is neither thickened nor reddened. After a few days, when pain lessens and swelling diminishes as the effusion and extravasated blood are absorbed, the limb returns to its natural position, and recovery follows.

TREATMENT: The condition is managed symptomatically, restricting or avoiding range of motion that produces pain. Therapeutic treatments include cold, heat, ultrasound, and medications to reduce inflammation. Rehabilitation includes strengthening, flexibility, and neuromuscular regimens.

chronic s. Synovitis in which an undue amount of fluid remains in the cavity and the membrane itself is edematous. Prolonged inflammation causes thickening of the membrane and articular structures by plastic exudation and the formation of fibrous tissue, which increases joint dysfunction and exacerbates symptoms. The joint is weak but not esp. painful, except on pressure and sometimes not even then. Movements, esp. in extension, are restricted and generally attended by crepitus or creaking. Symptoms are well marked when the patient has an excess accumulation of synovial fluid (the amount of fluid depends on the joint involved and also on the patient's body build). Fluid can be removed with a needle and syringe and sent to the laboratory for analysis.

dendritic s. Synovitis with villous growths developing in the sac.

detritic s. Inflammation and proliferation of the synovial tissues, esp. when occurring around foreign bodies (such as silicone joint prostheses) or loose bodies (such as fragments of cartilage or subchondral bone).

dry s. Synovitis with little or no effusion. SYN: *synovitis sicca*.

purulent s. Synovitis with purulent effusion within the sac.

serous s. Synovitis with nonpurulent, copious effusion.

s. sicca Dry s.

simple s. Synovitis with only slightly turbid, if not clear, effusion.

tendinous s. Inflammation of a tendon sheath. SYN: *vaginal synovitis*.

vaginal s. Tendinous s.

vibration s. Synovitis resulting from a vibration wound near a joint.

synovitis acne pustulosis hyperostosis and osteomyelitis syndrome ABBR: SAPHO. Acne-associated arthritis.

synovium (sīn-ō'vē-ŭm) [L. *synovia*, joint fluid] A synovial membrane.

syntactic (sīn-tāk'tik) Concerning or affecting syntax.

synaxis (sīn-tāk'sīs) [" + *taxis*, arrangement] A junction between two bones. SYN: *articulation*.

synthase (sīn'thās) An enzyme that acts as a catalyst for joining two molecules. SYN: *synthetase*.

ATP s. An enzyme that catalyzes the addition of a phosphate group to adenosine diphosphate to produce adenosine triphosphate.

nitric oxide s. ABBR: NOS. An enzyme that synthesizes nitric oxide from arginine; present in the central nervous system, the lining of blood vessels, the heart, joints, some autonomic neurons, and other organs.

synthermal (sīn-thēr'mäl) [" + *therme*, heat] Having the same temperature.

synthesis (sīn'thēs-īs) [Gr.] In chemistry, the union of elements to produce compounds; the process of building up. In general, the process or processes involved in the formation of a complex substance from simpler molecules or compounds, as the synthesis of proteins from amino acids. Synthesis is the opposite of decomposition.

synthesize (sīn'thē-sīz') To produce by synthesis.

synthetase (sīn'thē-tās) Synthase.

synthetic (sīn-thēt'ik) [Gr. *synthetikos*] Rel. to or made by synthesis; artificially prepared.

synthorax (sīn-thō'rāks) [Gr. *syn*, together, + *thorax*, chest] Thoracopagus.

Synthroid (sīn'throid") SEE: *levothyroxine sodium*.

syntone (sīn'tōn) [" + *tonos*, act of stretching, tension] An individual whose personality indicates a stable re-

sponsiveness to the environment and its social demands. SEE: *syntonic*.

syntonic (sīn-tōn'ik) Pert. to a personality characterized by an even temperament, a normal emotional responsiveness to life situations; the opposite of schizoid. SEE: *syntone*.

syntonin (sīn'tō-nīn) An acid albumin formed by the action of dilute hydrochloric acid on muscle during gastric digestion.

syntrophism (sīn'trōf-izm) [" + *trophe*, nourishment, + *-ismos*, condition] Stimulation of an organism to grow by mixing with or through the closeness of another strain.

syntrophoblast (sīn-trōf'ō-blāst) [" + " + *blastos*, germ] The outer syncytial layer of the trophoblast. SEE: *trophoblast*.

syntropy (sīn'trō-pē) [" + *trope*, a turn] Turning or pointing in the same direction. **syntropic, adj.**

synulosis (sīn"ū-lō'sīs) [Gr. *synoulosis*] The formulation of scar tissue. **synulotic, adj.**

syphilid(e) (sif'i-līd) *pl.* **syphilides** [Fr.] A skin eruption caused by secondary syphilis.

syphilis (sif'i-lis) [*Syphilis*, shepherd having the disease in a Latin poem] A multistage infection caused by the spirochete *Treponema pallidum*. The disease is typically transmitted sexually, although a small number of congenital infections occur during pregnancy. In the U.S. the incidence of syphilis fluctuates from year to year and decade to decade. In 2005, 33,278 cases were reported in the U.S., a rate of 11.3 per 100,000. SYN: *lues*. SEE: *illius*; *Standard and Universal Precautions Appendix*. **syphilitic** (sif'i-līt'ik), *adj.*

Syphilis is typically passed from person to person by direct contact with skin or mucous membranes. Spirochetes readily penetrate skin and disseminate from the initial site of inoculation to regional lymph nodes, the bloodstream, and multiple other sites including the central nervous system. After an incubation period of 10 days to 2 months, a papule appears on the skin that develops into a painless ulcer ("chancere") that is characteristic of the *primary stage* of infection. The chancre and other skin lesions caused by syphilis are highly infectious. The genitals are the most common site of primary infection and chancre formation in syphilis, although chancres may appear on other points of contact, such as the lips, mouth, anus, or rectum.

Chancres usually disappear within 3 to 6 weeks, even without treatment. Within a few days to several months, the *secondary stage* appears: a widespread body rash, often with systemic symptoms such as fever, headache, generalized lymph node swelling, nausea, vomiting,



SYPHILIS

Secondary syphilitic rash on chest and palm

weight loss, and malaise. Highly infectious, moist, broad, pink or grayish-white papules may appear in the perineum (“condyloma lata”), along with shallow ulcers in the mouth (“mucous patches”). Hair loss, which usually is temporary, also may occur, and the nails may become brittle and pitted. If the disease is not eradicated with antibiotics, it establishes latent infection that may cause multiple destructive changes in many organ systems years later.

In the latent (formerly called *tertiary stage*), tissue destruction occurs in the aorta, the central nervous system, bone, and skin. The consequences may include aortic aneurysm, meningitis, sensory and gait disturbances, dementia, optic atrophy, and many other illnesses.

SEROLOGICAL TESTS FOR SYPHILIS: Commonly used laboratory tests for syphilis do not have optimal sensitivity or specificity. Screening is usually performed with the nontreponemal rapid plasma reagin test (RPR) or the Venereal Disease Research Laboratory test (VDRL); either of these may yield inaccurate results. Both tests become reactive about 1 to 2 weeks after initial infection. If either test result is positive, a confirmatory test is done: (1) by identifying the responsible bacterium, *T. pallidum* on dark-field examination of material from a genital lesion; (2) with the microhemagglutination assay for antibody to *T. pallidum* (MHA-TP); or (3) with the fluorescent treponemal antibody absorption test (FHA-ABS). Two-stage testing increases the likelihood of obtaining an accurate diagnosis.



Individuals diagnosed with syphilis may have other sexually transmitted illnesses, esp. HIV infection. Public health experts recommend testing all individuals with either disease for the other, as well as for other sexually transmitted diseases (gonorrhea, chlamydia, or trichomoniasis).

acting intramuscular preparations of penicillin are typically given to patients with syphilis. The duration of treatment varies, depending on the stage of the disease and on whether there are comorbid illnesses, such as HIV infection, or complications, such as evidence of neurosyphilis. Doxycycline or tetracycline may be substituted in nonpregnant patients who are allergic to penicillin, although, because of potential bacterial resistance, patients with penicillin allergy should be considered candidates for desensitization. Pregnant patients are not given tetracycline or doxycycline because they discolor primary teeth in the infant.

PATIENT CARE: The patient is taught about the illness and the importance of locating all sexual contacts, the nature of the disease, treatment, and the need for follow-up care. The patient should avoid sexual contact with anyone until the full course of therapy has been completed, including previous partners who have not received adequate evaluation and treatment, if indicated, for syphilis. Contact precautions are instituted from the time the disease is suspected until 24 hr after initiation of proper antibiotic therapy and whenever draining lesions are present. Standard precautions apply. The patient is informed about safe sex practices and consistent condom use to prevent infection with syphilis, as well as other sexually transmitted diseases. Pregnant patients are screened for syphilis to prevent prenatal transmission. Rape victims are tested at the time of the attack and again 1 to 2 weeks later. All cases of syphilis must be reported to local public health authorities by both health care providers and laboratories. SEE: *Standard Precautions Appendix*.

cardiovascular s. Tertiary syphilis involving the heart and great blood vessels, esp. the aorta. Saccular aneurysms of the aorta and aortic insufficiency frequently result.

congenital s. Syphilis transmitted from the mother to the fetus in utero.

TREATMENT: Intravenous or long-

Transplacental fetal infection may occur if a pregnant woman is not treated by the 18th week of gestation or contracts the disease later in pregnancy. In the U.S. in 2000, 529 cases of congenital syphilis were reported. SYN: *prenatal syphilis*. SEE: *Nursing Diagnoses Appendix*.

endemic s. Chronic, nonvenereal syphilis infection of childhood. It is characterized in its early stages by mucocutaneous or membrane lesions. Later, gummas of bone and skin occur. The causative organism is *T. pallidum*. Penicillin is the treatment of choice.

extragenital s. Syphilis in which the primary chancre is located elsewhere than on genital organs.

latent s. The phase of syphilis during which symptoms are absent and the disease can be diagnosed only by serological tests.

meningovascular s. A form of neurosyphilis in which the meninges and vascular structures of the brain and spinal cord are involved. It may be localized or general. SYN: *meningovascular neurosyphilis*.

prenatal s. Congenital s.

serological tests for s. ABBR: STS. Nonspecific blood tests for syphilis. Two general types are available: (1) Procedures that identify the presence of a nontreponemal antibody against a lipoidal agent that is generated in response to infection with *Treponema pallidum* (i.e., a reagin). These tests include the Wassermann, the Venereal Disease Research Laboratory, and the rapid plasma reagin tests. (2) An antibody-specific test, the fluorescent treponemal antibody absorption (FTA-ABS) procedure. Because of a high rate of false-positive findings by the nonspecific antibody tests, diagnosis of syphilitic infection is established by the more accurate FTA test.

syphilitic macule (sif'ī-lit'ik māk'ūl') A small red eruption manifested in secondary syphilis. These eruptions often cover the entire body and are associated with chancre or scar, alopecia, pain in bones, swollen glands, and sore throat.

syphiloderm, syphiloderma (sif'īl-ō-dēr'mā) [sif'īl-ō-dēr'mā, sif'īl-ō-dēr'mā] [sif'īl-ō-dēr'mā] + Gr. *derma*, skin] A syphilitic cutaneous disorder.

syphiloid (sif'ī-loyd) [sif'īl-ō-loyd] + Gr. *eidōs*, form, shape] Resembling syphilis.

syphilology (sif'īl-ōl'ō-jē) The study of syphilis and its treatment.

syphiloma (sif'īl-ō'mā) [sif'īl-ō-mā] + Gr. *oma*, tumor] A syphilitic tumor; a gumma.

syphilomania (sif'īl-ō-mā'nē-ā) [sif'īl-ō-mā'nē-ā] + Gr. *mania*, madness] Syphilophobia (1).

syphilophobia (sif'īl-ō-fō'bē-ā) [sif'īl-ō-fō'bē-ā] + Gr. *phobos*, fear] 1. A morbid fear of syphilis. SYN: *syphilomania*. 2. A delusion of

having syphilis. **syphilophobic** (-fō'bīk), *adj.*

syr (sēr, sīr) [L., *syropus*] Syrup.

Syrian rue (sēr'ē-ān roo) The common name for the plant, *Peganum harmala*, whose seeds are brewed in some cultures to make a tea with hallucinogenic properties. Its seeds contain harmaline alkaloids (harmine, harmaline and tetrahydroharmine) which are members of the class of chemicals known as beta-carboline alkaloids. They increase levels of serotonin in the central and peripheral nervous systems.

syrigmus (sīr-īg'mūs) [Gr. *syrgmos*, a whistle] An infrequently used synonym for tinnitus.

syringadenoma (sīr-īg'ā-dē-nō'mā) [Gr. *syrix*, pipe, + *aden*, gland, + *oma*, tumor] Tumor of a sweat gland.

syringe (sīr-inj', sīr'ing) [Gr. *syrix*, pipe] 1. An instrument for injecting fluids into cavities, tissues, or vessels. SEE: *illus.* 2. To wash out or introduce fluid with a syringe.

air s. A syringe on a dental unit that delivers compressed air, water, or both through a fine nozzle to clear or dry an area or to evacuate debris from an operative field.

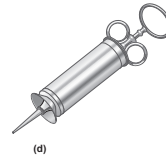
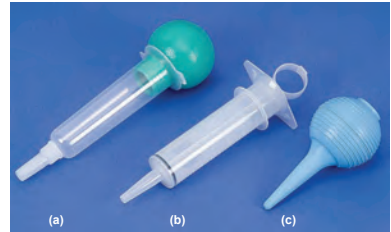


Use of high pressure may injure the tissues.

hand s. A hollow rubber bulb that is fitted to a nozzle and delivers air or fluid when squeezed; commonly called a bulb syringe.

hypodermic s. A syringe, fitted with a needle, used to administer drugs subdermally.

oral s. A syringe made of plastic or



SYRINGES

A. plastic; B. piston; C. rubber bulb; D. metallic.

glass. It is not fitted with a needle but is graduated and is used to dispense liquid medication to children. The tip is constructed to prevent its breaking in the child's mouth. An oral syringe may also be used to deliver fluids to impaired patients with an intact swallowing mechanism.

syringectomy (sir'in-jèk'tō-mē) [" + *ektome*, excision] Removal of the walls of a fistula.

syringocarcinoma (sir-rìng'gō-kār'sī-nō'mā) [" + *karkinos*, crab, + *oma*, tumor] Carcinoma of a sweat gland.

syringocoele (sir'in'gō-sēl) [" + *koilia*, cavity] **1.** The central canal of the myelion or spinal cord. **2.** A form of meningocele that contains a cavity in the ectopic spinal cord.

syringocystadenoma (sir'in'gō-sīs'tā-dē-nō'mā) [" + *kystis*, bladder, sac, + *aden*, gland, + *oma*, tumor] Adenoma of the sweat glands, characterized by tiny, hard, papular formations.

syringocystoma (sir'in'gō-sīs-tō'mā) [" + " + *oma*, tumor] A cystic tumor having its origin in ducts of the sweat gland.

syringoencephalomyelia (sir-rìng'gō-èn-sēf'ā-lō-mī-ē'lē-ā) [" + *encephalos*, brain, + *myelos*, marrow] A condition of cavities in the brain and spinal cord.

syringoid (sir'in'goyd) [Gr. *syrinx*, pipe, + *eidos*, form, shape] Resembling a tube; fistulous.

syringoma (sir'in'gō'mā) [" + *oma*, tumor] A tumor of the sweat glands.

syringomeningocele (sir'in'gō-mèn-ìng'gō-sēl) [" + *meninx*, membrane, + *kele*, tumor, swelling] A meningocele that is similar to a syringomyelocele.

syringomyelia (sir'in'gō-mī-ē'lē-ā) [" + *myelos*, marrow] A disease of the spinal cord characterized by the development of a cyst or cavities with the cord. It usually begins at the site of a congenital malformation of the cerebellum, but sometimes results from spinal cord trauma, tumors, or after spinal cord infection. SYN: *syringomyelus*. SEE: *Nursing Diagnoses Appendix*.

SYMPTOMS: Depending on the location of the syrinx, there may be pain, sensory losses, paralysis, or autonomic dysfunction.

TREATMENT: Some patients are managed conservatively. Sudden enlargement of a cavity may warrant surgical intervention with decompression of the cavity. Persistent pain may necessitate chordotomy or medullary tractotomy for relief.

syringomyelitis (sir'in'gō-mī'ē-lī'tīs) [" + *myelos*, marrow, + *itis*, inflammation] Inflammation coincident with abnormal dilation of the central canal of the spinal cord.

syringomyelocele (sir'in'gō-mī'ēl-ō-sēl) [" + " + *kele*, tumor, swelling] A

form of spina bifida in which the cavity of the projecting portion communicates with the central canal of the spinal cord.

syringomyelus (sir'in'gō-mī'ēl-ūs) Syringomyelia.

syringopontia (sir'in'gō-pōn'shē-ā) [" + L. *pons*, bridge] Cavity formation in the pons varolii similar to syringomyelia.

syringotomy (sir'in'gōt'ō-mē) An operation for incision of a fistula.

syrinx (sir'ìnk) [Gr., pipe] **1.** A tube or pipe. **2.** A pathological cavity (cyst) in the spinal cord or brain. **3.** A fistula.

syrup (sir'üp) [L. *syrupus*] ABBR: syr. A concentrated solution of sugar in water to which specific medicinal substances are usually added. Syrups usually do not represent a very high percentage of the active drug. Some syrups are used principally to give a pleasant odor and taste to solutions.

system (sīs'tēm) [Gr. *systema*, a composite whole] An organized grouping of structures, such as a group of cells that perform a particular function (e.g., the mononuclear phagocyte system). Particular systems are listed under the first word. SEE: e.g., *circulatory system*; *International System of Units*; *metric system*.

systematic (sīs'tē-māt'ìk) Concerning a system or organized according to a system.

systematization (sīs-tēm'ā-tī-zā'shūn) The process of organizing something according to a plan.

Systematized Nomenclature of Medicine ABBR: SNOMED. A systematized collection of medically useful terms published by the American College of Pathologists. The words in the collection are arranged in various fields to permit coding, computerization, sorting, and retrieval of large amounts of information from medical records.

systematized nomenclature of medicine-clinical terms ABBR: SNOMED-CT. A reference terminology optimized for clinical data retrieval and analysis. Concept definition and manipulation are supported through a set of tools with functionality such as

1. acronym resolution, word completion, term completion, spelling correction, display of the authoritative form of the term entered by the user, and decomposition of unrecognized input;
2. automated classification; and
3. conflict management, detection, and resolution.

systemic (sīs-tēm'ìk) **1.** Rel. or pert. to a system. **2.** Pert. to the blood flow that leaves the left ventricle to deliver oxygen to the body as distinct from the blood flow that leaves the right ventricle to become oxygenated in the lungs.

systemic capillary leak syndrome A rare disease whose hallmarks are episodes of hypotension associated with extravasa-

tion of plasma from the systemic circulation.

systemic inflammatory response syndrome ABBR: SIRS. A progressive state of systemic inflammation characterized by a white blood cell count greater than 12,000/mm³ or less than 4000/mm³, temperature greater than 38°C or less than 36°C, tachycardia, tachypnea, and decreased blood carbon dioxide levels. SIRS can begin with any serious illness or injury involving inflammation but is most often associated with systemic infection (sepsis) caused by gram-negative bacteria. SEE: *sepsis*; *septic shock*.

ETIOLOGY: Lipopolysaccharide endotoxins released by gram-negative and gram-positive bacteria bind with lymphocytes and endothelial cells, stimulating a cascade of cytokine release, which produces systemic inflammation of blood vessels, tissues, and organs. Shock develops when cytokines cause vasodilation and increased vascular permeability; SIRS is one of the main causes of multiple organ dysfunction syndrome.

TREATMENT: Treatment for SIRS is focused on treating the primary cause. Multiple antibiotic therapy is required in sepsis. Supportive measures include the use of intravenous fluids and pressors, to support blood pressure, and intensive monitoring and optimization of oxygenation, ventilation, blood pressure, cardiac rhythms, serum electrolytes, and renal function.

systemoid (sĭs'tē-moyd) [ʹ + *eidos*, form, shape] 1. Resembling a system. 2. Pert. to tumors made up of several types of tissues.

Systems Model Neuman's systems model.

system testing The evaluation of the function, performance, and suitability of a computing system. Elements of system testing include assessments of usability, final requirements, volume and stress, security and controls, recovery, documentation procedures, and communications ability among separate locations.

system theory, general A theory developed by Ludwig von Bertalanffy, which asserts that all living systems are open systems constantly exchanging information, matter, and energy with the environment. There are three levels of reference for systems: the system level on which one is focusing, such as a person; the suprasystems level above the focal

system, such as the person's family, community, and culture; and the subsystem, that below the focal system, such as the bodily systems and the cell. The theory suggests that the treatment of people is more important than the treatment of illnesses. SEE: *holistic medicine*.

systole (sĭs'tō-lē) [Gr., contraction] Contraction of the chambers of the heart. The myocardial fibers shorten, making the chamber smaller and forcing blood out. In the cardiac cycle, atrial systole precedes ventricular systole, which pumps blood into the aorta and pulmonary artery. **systolic**, *adj.* SEE: *diastole*; *murmur*; *presystole*.

aborted s. A premature cardiac systole in which arterial pressure is increased little if at all because of inadequate filling of ventricles resulting from shortening of the preceding diastole.

anticipated s. A systole that is aborted because it occurs before the ventricle is filled.

arterial s. The rebound or recoil of the stretched elastic walls of the arteries following ventricular systole.

atrial s. The contraction of the atria; it occurs before the contraction of the ventricles. About a fourth of the blood that fills the ventricles is squeezed into them during atrial systole. In atrial fibrillation, the atria beat erratically without a defined contraction, and ventricular filling is impaired. Colloquially, atrial systole is called the "atrial kick."

electrical s. The total duration of the QRST complex in an electrocardiogram; it occurs just before the mechanical systole.

premature s. Extrasystole.

ventricular s. Ventricular contraction.

systolic pressure Systolic blood pressure. SEE: *blood pressure*, *diastolic*; *pulse*; *pulse pressure*.

systemma (sĭs-trēm'ă) [Gr. *systemma*, anything twisted together] A cramp in the calf of the leg, the muscles forming a hard knot.

syzygiology (sĭ-zĭj'ē-ōl'ō-jē) [ʹ + *logos*, word, reason] The study of interdependence or interrelationship of the whole as opposed to that of isolated functions or separate parts. SEE: *holism*.

syzygium (sĭ-zĭj'ē-ūm) [Gr. *syzygia*, conjunction] Fusion of two parts or structures without loss of identity of the parts. **syzygial**, *adj.*

syzygy (sĭz'ĭ-jē) Fusion of organs, each remaining distinct.