



Δ, δ Upper- and lower-case delta, respectively; the fourth letter of the Greek alphabet.

D 1. L. *da*, give; *date*; *daughter*; *deciduous*; L. *detur*, let it be given; *died*; *diop-ter*; *divorced*; *doctor*. 2. Symbol for the element deuterium.

D- In biochemistry, a prefix indicating the structure of certain organic compounds with asymmetric carbon atoms. If a carbon atom is attached to four different substituent groups that can be arranged in two ways and represent nonsuperimposable mirror images, it is classed as asymmetrical. The name of such a compound is preceded by D. When there are only three dissimilar groups around the carbon atom, only one configuration in space is possible. The carbon atom is classed as symmetrical (or chiral), and the name is preceded by L.

In other chemical nomenclature, a lower-case *d*- or *l*- indicates the rotational direction of a polarized light shined through a solution of the compound. When the plane of the light is rotated to the right (i.e., is dextrorotatory), the compound's name is preceded by *d*-. When the light is rotated to the left (i.e., is levorotatory), the name is preceded by *l*-.

If a D compound that has an asymmetrical carbon can also rotate light and is dextrorotatory, its name is preceded by D(+); if levorotatory, by D(-). If the asymmetrical carbon is of the L form and is dextrorotatory, its name is prefixed by L(+); if it is levorotatory, the name is preceded by L(-).

d *density*; L. *dexter* or *dextro*, right; L. *dies*, day; *distal*; *dorsal*; *duration*.

D/A *digital to analog*.

Da Symbol for dalton.

dacrocyste (dāk'rō-sīt) Teardrop cell.

dacry- Prefix indicating *tears*, *lacrimal gland*, *lacrimal apparatus*.

dacryoadenalgia (dāk'rē-ō-ād'ēn-āl'jē-ā) [" + *aden*, gland, + *algos*, pain] Pain in a lacrimal gland.

dacryoadenitis (dāk'rē-ō-ād'ēn-ī'tīs) [" + " + *itis*, inflammation] Inflammation of a lacrimal gland. It is rare, seen as a complication in epidemic parotitis (mumps involving the lacrimal gland) and present in Mikulicz's disease. It may be acute or chronic.

dacryoblennorrhea (dāk'rē-ō-blēn'ō-rē-ā) [" + *blenna*, mucus, + *rhoia*, flow] Discharge of mucus from a lacrimal sac and chronic inflammation of the sac.

dacryocyst (dāk'rē-ō-sist) [" + *kystis*, cyst] Lacrimal sac.

dacryocystectomy (dāk'rē-ō-sis-tēk'tō-mē) [" + *kystis*, cyst, + *ektome*, excision] Excision of membranes of the lacrimal sac.

dacryocystitis (dāk'rē-ō-sis-tī'tīs) [" + " + *itis*, inflammation] Inflammation of a lacrimal sac, including its mucous and submucous membranes. It may occasionally extend the surrounding connective tissue and cause periorbital cellulitis. It is usually secondary to prolonged obstruction of a nasolacrimal duct.

SYMPTOMS: The symptoms are profuse tearing (epiphora); redness and swelling in the lacrimal sac, which may also extend to the lids and conjunctiva; and pain, esp. on pressure over the sac.

TREATMENT: Hot compresses should be applied to the area. Appropriate topical and systemic antibiotic therapy depend on the organisms isolated from the inflamed area. The physician should incise and drain the sac if it is fluctuant; attempt to restore permeability of the duct with a probe when acute symptoms have subsided; and in chronic cases, extirpate the sac or perform an intranasal operation (dacryocystorhinostomy).

dacryocystocele (dāk'rē-ō-sis'tō-sēl) [Gr. *dakryon*, tear, + *kystis*, cyst, + *kele*, tumor, swelling] A herniated protrusion of a lacrimal sac.

dacryocystorhinostomy (dāk'rē-ō-sis'tō-rī-nōs'tō-mē) [" + " + " + *stoma*, mouth] Surgical connection of the lumen of a lacrimal sac with the nasal cavity.

dacryocystotomy (dāk'rē-ō-sis-tōt'ō-mē) Incision of a lacrimal sac.

dacryohemorrhhea (dāk'rē-ō-hēm'ō-rē-ā) [" + *haima*, blood, + *rhoia*, flow] Discharge of bloody tears.

dacryostenosis (dāk'rē-ō-stēn-ō'sīs) [" + *stenosis*, act of narrowing] Obstruction or narrowing of a lacrimal or nasal duct.

dactyl (dāk'tīl) [Gr. *daktylos*, finger] A finger or toe; a digit of the hand or foot.

dactyl- SEE: *dactylo-*.

dactylitis (dāk'tī-lī'tīs) [" + *itis*, inflammation] Inflammation of the fingers or toes, resulting in a sausage-shaped appearance of the digits. Dactylitis is a common finding in reactive arthritis.

sickle cell d. Painful swelling of the feet and hands during the first several years of life in children with sickle cell anemia.

dactylo-, dactyl- [Gr. *dactylosdaktulos*, finger, toe] Combining forms meaning *finger or toe*.

dactylogryposis (dăk'ti-lō-grī-pō'sis) [" + *gryposis*, curve] Permanent contraction of the fingers.

dactylogy (dăk'ti-lōl'ō-jē) Any of the techniques of communicating by use of the fingers and hands to represent letters, words, or language signs, e.g., in American Sign Language.

dactylolysis (dăk'ti-lōl'i-sis) [" + *lysis*, dissolution] Spontaneous amputation of fingers or toes, seen in leprosy, ainhum, and produced in utero.

spontaneous d. Ainhum.

dactylomegaly (dăk'ti-lō-mэг'ā-lē) [" + *megas*, large] Abnormally large size of fingers and toes. SEE: *acromegaly*.

dactylus (dăk'ti-lūs) [Gr. *daktylos*] Digit.

daily wake up The interruption of sedative-drug infusions in mechanically ventilated patients to permit assessments of mental status and to facilitate the discontinuation of life support.

dairy food substitute A food resembling an existing dairy food in taste and appearance but differing in composition from the dairy food for which it is substituted.

Dale reaction (dāl) [Sir Henry H. Dale, 1875–1968, Brit. scientist and Nobel Prize winner in 1936] A test formerly used to demonstrate the ability of muscle tissues from an anaphylactic organism to contract on re-exposure to the antigen. SYN: *Schultz reaction*.

dalton (dawl'tōn) ABBR: Da. An arbitrary unit of mass equal to $\frac{1}{12}$ the mass of carbon 12, or 1.657×10^{-24} g; also called atomic mass unit.

Dalton's law [John Dalton, Brit. chemist, 1766–1844] A law that states that, in a mixture of gases, the total pressure is equal to the sum of the partial pressures of each gas.

dam 1. A thin sheet of latex used in dentistry and oral surgery to isolate a part from the surrounding tissues and fluids. SYN: *dental d.*; *rubber dam*. 2. A barrier made of flexible material, such as latex, that prevents body fluids from entering the mouth during oral sex (cunnilingus or fellatio). It is used as a shield against sexually transmitted infections.

dental d. Dam (1).

damages The compensation or payment awarded by the courts to an injured party.

compensatory d. In a lawsuit, money awarded to an injured individual to repay that person for the actual costs that have resulted from the injury. The damages should restore the injured party to his or her preinjury status.

punitive d. Damages awarded in an amount intended to punish the defendant for the egregious nature of the tort.

The defendant's actions must be willful and wanton, and the damages are not based on the plaintiff's actual monetary loss.

damp 1. Moist, humid. 2. A noxious gas in a mine.

damping Steady diminution of the amplitude of successive vibrations, as of an electric wave or current.

dance therapy, dance movement therapy The therapeutic use of creative dance for healing.

dancing disease In Europe during the Middle Ages, an epidemic chorea supposed to have been caused by the bite of the tarantula. SEE: *tarantism*.

dander (dăn'dēr) Small scales from the skin, hair, or feathers of animals, which may provoke allergic reactions in sensitized individuals.

dandruff Scale that exfoliates from the outer layer of the skin, esp. from the scalp.

TREATMENT: Several over-the-counter products, including salicylic acid, pyri-thione zinc, and selenium sulfide, provide effective treatment.

dandy fever Dengue; an acute, epidemic, febrile disease occurring in tropical areas.

Dandy-Walker syndrome (dăn'dē-wawk'ēr) [Walter E. Dandy, U.S. neurosurgeon, 1886–1946; Arthur E. Walker, U.S. surgeon, b. 1907] A congenital brain malformation characterized by fourth ventricle (posterior fossa) cystic dilation, hydrocephalus, and improper formation of the cerebellar vermis.

TREATMENT: Treatments sometimes include cyst drainage or ventriculoperitoneal shunting.

Dane particle (dăn) [David S. Dane, contemporary Brit. virologist] The hepatitis B virus.

dangerous abbreviations, acronyms, and symbols A shortened version of a word or phrase that may be misinterpreted because of its similarity in print or cursive handwriting to another word or phrase with a different meaning. Some examples of dangerous abbreviations are cc, D/C, q.d., and U.

Danon's disease ABBR: DD. A rare X-linked lysosomal storage disease whose clinical features often include cardiomyopathy, skeletal myopathy, and mental retardation. SYN: *X-linked vacuolar cardiomyopathy and myopathy*.

danshen, danshen root (dahn-shŭn) [Chinese Mandarin] *Salvia miltiorrhiza*.

Danysz phenomenon (dăn'ēz) [Jean Danysz, Polish-born pathologist in France, 1860–1928] A phenomenon that illustrates the reversibility of precipitation of antibody and antigen complexes. When a specified amount of diphtheria toxin is added all at once to an antitoxin serum, the mixture is non-

toxic; but when the same quantity of toxin is added in portions at about 30-min intervals, the mixture is toxic.

Dapaong's tumor (dā-pā-ōng) [City in Togo] A painful, nodular mass in the large bowel, a result of infection with *Oesophagostomum bifurcum*, a West African worm.

Daptacel (dāp'tā-sēl") Diphtheria, tetanus toxoids, and acellular pertussis vaccine (DTaP), adsorbed.

dardarin (dār-dār'ū) [Basque *dardara*, tremor] A protein whose presence in the body has been associated with an autosomal dominant (familial) form of Parkinson's disease. SYN: *leucine-rich repeat kinase 2*.

Darier, Ferdinand Jean (dār-ē-ā') French dermatologist, 1856–1938.

D.'s disease A rare autosomal dominant skin disease in which the patient is marked by numerous warty papules that merge into large plaques. The lesions often become infected and may have an offensive odor. SYN: *keratosis follicularis*.

D.'s sign The skin change produced when the skin lesion in urticaria pigmentosa is rubbed briskly. The area usually begins to itch and becomes raised and surrounded by erythema. SEE: *illius*; *mastocytosis*; *urticaria pigmentosa*.



DARIER'S SIGN

dark reactions Any enzymatically mediated chemical reaction that takes place in the absence of light. One example is the series of light-independent reactions that produce glucose from carbon dioxide and cellular energy sources.

darkroom A room designed to be devoid of light. The darkroom is necessary for the development of radiographic film.

Darling's disease (dār'lingz) [Samuel Taylor Darling, U.S. pathologist, 1872–1925] Histoplasmosis.

Darmstadtium ABBR: Ds. Chemical element 110. A synthesized radioactive metal with a very short half-life.

dartoid (dār'toyd) [Gr. *dartos*, skinned, + *eidōs*, form, shape] Resembling the tunica dartos in its slow, involuntary contractions.

dartos (dār'tōs) [Gr.] The muscular,

contractile tissue beneath the skin of the scrotum.

dartos muliebris (moo-lē'ē-bris) A veil-like smooth muscle just under the skin of the labia majora.

dartos muscle reflex Wormlike contraction of the dartos muscle following sudden cold application to the perineum.

Darvon (dār'vōn") SEE: *propoxyphene napsylate*.

darwinism (dār'wī-nīzm) The theory of biological evolution through natural selection.

data *sing.*, **datum** **1.** Individual raw facts that have not yet been interpreted, organized, or evaluated. **2.** A body of facts or information obtained by observation or research.

interim d. Scientific information that is studied part way through a medical research project to see whether there are hazards associated with the study or clear benefits from one treatment or another.

database A collection of data that is organized so that its contents can easily be accessed, managed, and updated. Databases are used to manage and archive large amounts of information.

data modeling **1.** The analysis of data, e.g., to make a practical impact on health care practices or business operations. **2.** A language for describing the structure and processing of a database.

data repository **1.** Computer storage. **2.** A program that optimizes storage, retrieval, and processing of very large collections of data.

data safety monitoring board ABBR: DSMB. An independent group of scientific investigators who oversee the interim findings of a research project to determine whether the research undertaken is proceeding without evidence of harm to the subjects enrolled in the study.

data warehouse A central repository for the data collected by the various computer systems of an enterprise.

datum *pl.* **data** **1.** A single piece or item of information, e.g., a statistic, date, or fact. **2.** Something admitted, given, or assumed, esp. as a basis for reasoning.

Datura (dā-tū'rā) A genus of plants, one member of which, *Datura stramonium*, contains constituents of hyoscyamine and scopolamine, which have anticholinergic properties.

Daubenton's plane [Louis Jean Marie Daubenton, Fr. physician, 1716–1800] A plane passing through the opisthion and inferior bones of the orbits.

Daubert's test (dō-bār') [F. *Daubert v. Merrel Down Pharmaceuticals*] A set of legal standards governing the admissibility of scientific evidence or expert testimony in a court of law. According to Daubert, the evidence must be empirically tested, published, and peer re-

viewed, have known rates of error, and be explainable with clarity and simplicity to the court.

daughter (daw'tēr) **1.** The product of the decay of a radioactive element. **2.** A product of cell division, as a daughter cell or daughter nucleus. **3.** One's female child.

daughter, DES The daughter of a mother who received diethylstilbestrol (DES) during pregnancy. SEE: *DES syndrome; diethylstilbestrol*.

DAWN *Drug Abuse Warning Network*. The network was renamed "New DAWN" in 2003.

dawn phenomenon A marked increase in insulin requirements between 6 A.M. and 9 A.M. as compared with the midnight to 6 A.M. period. The increased dose of insulin required during this period is in contrast to the Somogyi phenomenon, which is managed by decreasing insulin during the critical period. Dawn phenomenon may occur in persons with diabetes mellitus of either type and in some normal persons. SEE: *diabetes mellitus*.

Dawson's disease (dāw'sōn) Panencephalitis, subacute sclerosing.

day care center A place for the care of preschool children whose parents are for any reason unable to care for their children during normal working hours.

adult d.c.c. A center for daytime supervision of adults. These centers provide supervised social, recreational, and health-related activities, usually in a group setting. The centers permit caregivers a respite and free them for other activities (work, play, appointments, socialization) during the day.

daydream Mental musing or fantasy while awake.

dazzle Dimming of vision due to intense stimulus of very bright light. SEE: *glare*.

dB, db *decibel*.

D.C. *direct current*.

D and C *dilation and curettage*.

d/c *discontinue*.

DCAP-BTLS An acronym that stands for deformities, contusions, abrasions, penetrations or perforations, burns, tenderness, lacerations, and swelling; to remember what is observed for when looking at soft tissue during the assessment of a patient.

DCIS *ductal carcinoma in situ*.

DDD pacing SEE: *pacemaker, artificial cardiac*.

D-dimer (dē'dī'mēr) A by-product of the degradation of blood clots, specifically, of the fibrin within a clot. The presence of an elevated level of D-dimer in the setting of a suspected pulmonary embolus or deep venous thrombosis is justification for further testing. The absence of D-dimer in plasma is used to help exclude a diagnosis of deep venous

thrombosis or pulmonary embolism when the test is performed with an enzyme-linked immunosorbent assay (ELISA).

DDT Dichlorodiphenyltrichloroethane, now called chlorophenothane; a powerful insecticide effective against a wide variety of insects, esp. the flea, fly, louse, mosquito, bedbug, cockroach, Japanese beetle, and European corn borer. However, many species develop resistant populations, and birds and fish that feed on affected insects suffer toxic effects. In 1972, the U.S. banned DDT except for essential public health use and a few minor uses to protect crops for which there were no effective alternatives.

When ingested orally, it may cause acute poisoning. Symptoms are vomiting, numbness and partial paralysis of limbs, anorexia, tremors, and coma, resulting in death. SEE: *Poisons and Poisoning Appendix*.

D and E *dilation and evacuation* of the uterus. SEE: *dilation and curettage*.

de- [L. *de*, from] Prefix indicating *down* or *from*.

deacidification (dē'ā-sīd'ī-fī-kā'shūn) [*n* + *acidus*, sour, + *facere*, to make] Neutralization of acidity.

deactivation (dē-āk-tī-vā'shūn) [*n* + *activus*, acting] The process of becoming or making inactive.

dead [AS. *dead*] Without life or life processes. SEE: *death*.

dead space The portion of the tidal volume not participating in gas exchange.

alveolar d. The volume of gas in alveoli that are ventilated but not perfused, or ventilated but not fully perfused.

anatomical d. In pulmonary physiology, the air in the mouth, nose, pharynx, larynx, trachea, and bronchial tree at the end of inhalation. This is termed dead space because the air does not reach the alveoli and is not involved in gas exchange.

mechanical d. The volume of gas exhaled into a tubing system and re-breathed on the subsequent breath.

physiological d. The sum of anatomical and alveolar dead space.

dead tooth A nonvital tooth by clinical standards, having had the pulp removed by endodontic treatment. The term is a poor choice because, if the periodontal tissues are healthy, the tooth will continue to function without symptoms.

deaf [AS. *deaf*] **1.** Partially or completely lacking the sense of hearing. **2.** Unwilling to listen; heedless.

deafferentation (dē-āf'ēr-ēn-tā'shūn) Cutting off of the afferent nerve supply. SEE: *denervation*.

deaf-mute A person who is unable to hear or speak. See <http://www.nad.org/>

infocenter/infotogo/dcc/terms.html. According to the National Association for the Deaf, this term is offensive.

deaf-mutism The state of being both deaf and unable to speak.

deafness [AS] Complete or partial loss of the ability to hear. The deficit may be temporary or permanent. More than 20 million Americans have hearing impairment; most of them are older than 65, although about 5% are children. Hereditary forms of hearing impairment affect about 1 newborn out of 2000. In this population hearing deficits may impair language acquisition and speech. Acquired hearing loss affects the lives of nearly half of all people over 80, in whom it may be a prominent cause of social isolation or depression. SYN: *hearing loss*.

ETIOLOGY: Hearing impairment has multiple causes. Congenital deafness occurs during pregnancy or delivery and in such syndromes as neurofibromatosis or Usher's syndrome. Toxic deafness may result from exposure to agents like salicylates, diuretics, or aminoglycoside antibiotics, or infections of the central nervous system (meningococcal meningitis, syphilis) or of the eighth cranial nerve. Many viruses may contribute to loss of hearing, as may prolonged or repetitive exposures to environmental noise. Otosclerosis is an example of bilateral conductive hearing loss due to progressive ossification of the annular ligaments of the ear. Presbycusis is an otologic effect of aging resulting from the loss of hair cells in the organ of Corti and leading to progressive, symmetrical, bilateral sensorineural hearing loss, esp. of high-frequency tones. Sudden hearing loss may result from ear trauma, fistulae, stroke, drug exposures, cancer, multiple sclerosis, vasculitis, Ménière's disease, and other conditions. Not infrequently, adult patients with unilateral conductive hearing loss have a cerumen impaction.

DIAGNOSIS: Simple bedside tests (e.g., assessing a patient's ability to hear a whispered phrase or the sound of rasping fingers) may suggest hearing impairment. Tuning fork tests that compare air and bone conduction of sound help clinicians identify whether hearing loss is due to conductive or sensorineural causes. Audiometry provides definitive diagnosis.

TREATMENT: The degree of hearing loss is calculated according to an American Medical Association formula: For every decibel that the pure tone average exceeds 25 dB, hearing impairment equals 1.5%. Therapy depends on the underlying condition. Cerumen impaction, for example, responds to irrigation of the external auditory canal, while otosclerosis may respond to the intra-

aural (surgical) placement of prostheses or laser surgery. Other forms of therapy include the use of hearing amplifiers or cochlear implants or education in lip reading or sign language.

PATIENT CARE: Patients can prevent damage to hearing from excessively loud noises by wearing sound-muffling ear plugs or muffs when exposed to loud noise from any source, esp. industrial noise, and by recognizing that loud music can be as detrimental to hearing as the noise of a jackhammer. After exposure to noise levels above 90 dB for several hours, overnight rest will usually restore normal hearing, but not in individuals who experience repeated exposure. Patients should avoid cleaning inside the ears or putting sharp objects in them. Many antibiotics and chemotherapeutic drugs are ototoxic, and hearing should be evaluated continually when such drugs are used.

When interacting with a person with a hearing deficit, the health care professional should make his or her presence known to the patient by sight by raising or waving of the arm (as even gentle touch may startle the person) before beginning to speak. If possible, background noise should be decreased. The health care professional's face should be well lit to make the lips and facial expression easy to see. He or she should face the patient directly or direct the voice toward the side preferred by the patient. To facilitate lip reading, short words and simple sentences should be used. Clear and distinct enunciation and speaking slowly in a low tone are helpful. Exaggerated mouthing of words or loud tones and shouting should be avoided. Placing a stethoscope in the patient's ears and speaking into the bell helps to limit extraneous sounds and to direct words into the patient's ears. If the patient is literate, sign language or finger spelling may be used to communicate. Written information should be presented clearly and in large letters, esp. if the patient has poor visual acuity.

Any child in whom hearing loss is suspected or who fails a language screening examination should be referred to an audiologist or otolaryngologist for further evaluation and therapy and, as necessary, to a speech therapist for language evaluation and therapy.

Health care professionals can help prevent hearing loss in their patients and communities by teaching about and assessing for signs of hearing impairment in anyone receiving ototoxic drugs; stressing the dangers of excessive noise exposure; explaining to pregnant women the danger to the fetus from exposure to drugs, chemicals, and infections (esp. rubella); and encourag-

ing the use of protective devices in noisy environments and during occupational or recreational exposure to noise.

acoustic trauma d. Impaired hearing due to repeated exposure to loud noise.

acquired d. Loss of hearing that is not present at birth but develops later in life.

bass d. Inability to hear low-frequency tones.

central d. Deafness resulting from lesions of the auditory tracts of the brain or the auditory centers of the cerebral cortex.

cerebral d. Cortical d.

conduction d. Conductive hearing loss.

cortical d. Deafness caused by a lesion of the auditory cortex of the brain rather than by a problem in the auditory nerve or the ear. SYN: *cerebral deafness*.

hereditary d. Hearing loss passed down through generations of a family.

high-frequency d. Inability to hear high-frequency sounds (e.g., sound frequencies just below 20 kHz).

nerve d. Deafness due to a lesion of the auditory nerve or central neural pathways.

nonsyndromic d. Any form of hereditary hearing impairment caused by one of many genetic mutations (e.g., in somatic, mitochondrial, or X-linked genes).

occupational d. Deafness caused by working in places where noise levels are quite high. Persons working in such an environment should wear protective devices.

ototoxic d. Hearing loss due to the toxic effect of certain chemicals or medicines on the eighth cranial nerve.



Commonly used drugs that may damage hearing include aminoglycoside antibiotics, aspirin, *cis*-platinum, erythromycin, loop diuretics, and vancomycin.

perceptive d. Deafness resulting from lesions involving sensory receptors of the cochlea or fibers of the acoustic nerve, or a combination of these.

postlingual d. Hearing impairment that develops after a patient has learned language.

prelingual d. Hearing impairment that is present in infancy and childhood, before language skills are acquired.

psychic d. A condition in which auditory sensations are perceived but not comprehended.

pure word d. Word deafness.

sensorineural d. Deafness due to defective function of the cochlea or acoustic nerve.

tone d. The inability to detect differences in musical sounds.

deamidase (dē-ām'ī-dās) An enzyme that splits amides to form carboxylic acid and ammonia.

deamidation (dē'ām-ī-dā'shūn) The removal of an amide group by hydrolysis.

deaminase (dē-ām'ī-nās") An enzyme that causes the removal of an amino group from organic compounds.

deamination, deaminization (dē-ām'ī-nā'shūn) Loss of the NH₂ radical from amino compounds. Alanine can be deaminized to produce ammonia and pyruvic acid: CH₃CH(NH₂)COOH + O = CH³CO·COOH + NH₃. Deaminization may be simple, oxidative, or hydrolytic. Oxidizing enzymes are called deaminization enzymes when the oxidation is accompanied by splitting off of amino groups. Deaminization is the first step in the use of amino acids in cell respiration; the NH₂ is converted to urea.

dearterialization (dē'ār'tēr'ē-āl-ī-zā'shūn) [L. *de*, from, + Gr. *arteria*, artery] Changing of arterial into venous blood; deoxygenation.

death [AS. *death*] Permanent cessation of all vital functions, including in animals, i.e., those of the heart, lungs, and brain. SEE: *table*; *brain d.*; *euthanasia*; *life*.

SIGNS: The principal clinical signs of death are apnea (the absence of respirations) and asystole (the absence of heartbeat). Other indications may need to be relied on in individuals who are receiving mechanical life support. These include the loss of cranial nerve reflexes and the cessation of the electrical activity of the brain.

PATIENT CARE: Legal procedures and institutional protocols should be followed in the determination of death. The times of cessation of breathing and heartbeat are documented, and the physician or other legally authorized health care professional is notified and requested to certify death. The family is notified according to institutional policy, and emotional support is provided. Auxiliary equipment is removed, but the hospital identification bracelet is left in place. The body is cleansed, clean dressings are applied as necessary, and the rectum is packed with absorbent material to prevent drainage. The patient is placed in a supine position with the limbs extended and the head slightly elevated. Dentures are inserted, if appropriate; the mouth and eyes are closed; and the body is covered to the chin with a sheet.

The patient's belongings are collected and documented. Witnesses should be present, esp. if personal items have great sentimental or monetary value. The family is encouraged to visit, touch,

Ten Leading Causes of Death in the U.S. (2004)*

Cause of Death	Number of Deaths in 2004
Heart disease	652,486
Cancer	553,888
Stroke	150,074
Chronic lower respiratory disease	121,987
Accidents	112,012
Diabetes	73,138
Pneumonia/Influenza	59,664
Alzheimer's disease	53,679
Nephritis, nephrotic syndrome, and nephrosis	42,480
Septicemia	33,373

SOURCE: National Vital Statistics Report, Vol. 56, No. 5

*Number of Deaths Annually: 2,397,615

Death Rate (age-adjusted): 816.5 deaths per 100,000 population

and hold the patient's body as desired. In some situations (e.g., neonatal death, accidental death) and according to protocol, a photograph of the deceased is obtained to assist the family in grieving and remembering their loved one. A health care professional and a family member sign for and remove the patient's belongings.

After the family has gone, the body is prepared for the morgue. Body tags, imprinted with the patient's identification plate or card information (name, identification number, room and bed number, attending physician), along with the date and time of death, are tied to the patient's foot or wrist as well as to the outside of the shroud. The body is then transported to the morgue and placed in a refrigerated unit according to protocol.

activation-induced cell d. ABBR: AICD. Destruction of T or B lymphocytes that would otherwise be activated by contact with "self"-antigens. AICD maintains immunologic tolerance; it is enhanced by interleukin-2 (IL-2) and inhibited by interleukin-15 (IL-15).

assisted d. Help that enables an individual who wants to die to do so. This may take the form of counseling or actually providing the means and instruments for allowing the person to commit suicide. The legal and moral questions concerning such acts, esp. if the assisting person is a health care professional, are topics of active debate. SEE: *assisted suicide; euthanasia.*

biological d. Death due directly to natural causes.

black d. Colloquial name for bubonic plague.

brain d. The cessation of brain function. The criteria for concluding that the brain has died include lack of response to stimuli, lack of all reflexes, absent respirations, and an isoelectric electroencephalogram that for at least 30 min will not change in response to sound or

pain stimuli. Other criteria that are sometimes used include loss of afferent cerebral evoked potentials, loss of isotope uptake during brain scans, or absence of cerebral perfusion on Doppler sonography. Before making this diagnosis, two physicians, including one experienced in caring for severely brain-damaged patients, should examine the patient. It is inadvisable for physicians associated with transplant procedures to participate in the review. The patient's body may be kept "alive" briefly by life-support devices if the patient is an organ donor.



Some drugs (e.g., barbiturates, methaqualone, diazepam, meclizolone, meprobamate, trichloroethylene) can produce short isoelectric periods on encephalograms. Hypothermia must also be excluded as the cause of apparent brain death.

PATIENT CARE: The determination of brain death has both medical and legal consequences. It establishes a criterion for the withdrawal of life support from critically ill persons who no longer have measurable brain function. At the same time it may initiate a discussion with family members of the deceased about organ donation. People who have unequivocally specified that they would want to donate their organs at death currently make up a very small proportion of the population. The majority of those who die have not made plans for organ donation, and some (e.g., those who die traumatically) may have never considered making a living will, a directive to physicians, or plans for organ donation. Discussions with family members in the immediate postmortem period may be emotionally challenging both for health care professionals and those who are newly mourning.

Because brain death differs from the

death of the heart, lungs, or other internal organs, family members may often be confused about its meaning. They may wonder why they can still observe evidence of cardiac activity or effective mechanical ventilation. Family members may be unwilling to consent to withdrawal of ventilator support, even when clinicians recognize that continued treatment has no benefit. A process has been developed to protect patients' and families' rights when resolving disputes that occur when family members do not agree with clinicians' decisions regarding discontinuance of life support in situations of medical futility. It is important for health care providers to be able to explain how brain death differs from cessation of other vital functions. In brain death the deceased may still have an active heart rhythm but no longer has the ability to think, see, hear, feel, express him- or herself, or interact neurologically with the surroundings. The pulse and breath of the brain-dead individual can be maintained for a short while artificially. The central nervous system has already failed. If organ donation is being considered, an expert counselor educated in this area should discuss this with the next-of-kin and assist in making necessary arrangements. For some families, organ donation by the deceased provides sorely needed meaning at a time of unfathomable loss. If time is needed for a significant loved one to be present with the patient before he or she is removed from life-support, notify the involved physicians and arrange for this time lapse. It is often helpful for families to do this. If a close family member cannot be present and the family is concerned about this, it may help them to have a photograph of the patient once he or she has died that can be shared with others. After life support has been withdrawn, it is considerate to provide private time for the family to be with the deceased, supporting them as necessary. A hospital chaplain or the patient's or family's priest, rabbi, minister, or pastor will often provide spiritual comfort for survivors in addition to the support and comfort provided by professional staff.

crib d. Sudden infant death syndrome.

d. with dignity SEE: *death with dignity*.

fetal d. Spontaneous demise of the fetus occurring after the 20th week of gestation. The cause is often unknown; however, fetal death often is associated with maternal infection, diabetes mellitus, fetal and placental abnormalities, and pre-eclampsia.

functional d. Central nervous system death with vital functions being artificially supported.

good d. Death in which the rights of the individual have been respected and during which the dying person was made as comfortable as possible and was in the company of persons he or she knew and loved. SEE: *living will*.

molecular d. Death of cell life.

neocortical d. Persistent vegetative state.

sudden d. Death occurring unexpectedly and instantaneously or within 1 hr of the onset of symptoms in a patient with or without known pre-existing heart disease. Sudden death due to cardiac conditions occurs in the U.S. at the rate of one a minute. It may be caused by cardiovascular conditions, including ischemic heart disease, aortic stenosis, coronary embolism, myocarditis, ruptured or dissecting aortic aneurysm, Stokes-Adams syndrome, stroke, pulmonary thromboembolism, and other, noncardiovascular-related disorders, such as electrolyte imbalance and drug toxicity.

wrongful d. Loss of life caused by negligent, illegitimate, or illegal acts.

deathbed statement A declaration made at the time immediately preceding death. Such a statement, if made with the consciousness and belief that death is impending and in the presence of a witness, is legally considered as binding as a statement made under oath. SYN: *antemortem statement*.

death investigation The customary investigation of a violent, suspicious, or unexpected death or of a death unattended by a physician. The investigation is, by law, done by an officially appointed person. The investigation system includes medical examiners, coroners, or both a combined medical examiner and coroner. The system used varies from state to state. SEE: *coroner*.

death syndrome, sudden infant SEE: *sudden infant death syndrome*.

death with dignity Death that is allowed to occur in accordance with the wishes of a patient. An individual may choose to withdraw from chronic medical therapies (e.g., when there is little expectation of cure). Patients who choose death rather than active treatment often have advanced malignancies, poor performance status, major depression, poor social support, or a desire for a palliative approach to end-of-life care.

debanding (dē-bānd'ing) [" + "] In orthodontics, the removal of a cemented orthodontic band from a tooth.

debarment (dē'bār'mēnt) Loss of professional rights or privileges.

debilitate (di-bil'i-tāt') To produce weakness or debility.

debility (di-bil'i-tē) Weakness or lack of strength.

debonding (dē-bōnd'ing) [n + n] In orthodontics, the removal of a bracket from a tooth.

débouchement (dā-boosh-mōn') [Fr.] An opening or emptying into another part.

débride (dā-brēd') [Fr.] To perform the action of débrider.

débridement (dā-brēd-mōn') [Fr.] The removal of foreign material and dead or damaged tissue, esp. in a wound.



autolytic d. A form of enzymatic débridement that uses the body's own enzymes to remove necrotic or nonviable tissue.

canal d. The removal of organic and inorganic debris from a dental root canal by mechanical or chemical methods. This procedure is done in preparation for sealing the canal to prevent further decay of the tooth.

enzymatic d. Use of proteolytic enzymes to remove dead tissue from a wound. The enzymes do not attack viable tissues.

epithelial d. The removal of the entire epithelial lining or attachment epithelium from a periodontal pocket.

mechanical d. The removal of necrotic or devitalized tissue from a wound using friction, hydrotherapy, scraping, or wet-to-dry dressings.

debrief (dī-brēf') To discuss events, thoughts, and feelings experienced by individuals who have been involved in an important or stressful encounter.

debris (dē-brē') [Fr., remains] The remains of broken-down or damaged cells or tissue.

debt (dēt) Deficit.

oxygen d. SEE: *oxygen debt*.

debulking (dē-būlk'ing) Surgery to remove a large portion of a tumor when complete excision is not possible.

deca-, dec- [Gr. *deka*] Prefixes indicating ten. SYN: *deka-*.

decagram (dēk'ă-grăm) [Gr. *deka*, ten, + *gramma*, small weight] A mass equal to 10 g.

decalcification (dē'kāl-sī-fī-kā'shūn) [L. *de*, from, + *calx*, lime, + *facere*, to make] The removal or withdrawal of calcium salts from bone or teeth.

decalcify (dē-kāl'sif-ī) **1.** To soften bone through removal of calcium or its salts by acids. **2.** To remove the mineral content from bones or teeth so that sections can be cut and stained for microscopic examination.

decaliter (dēk'ă-lē'tēr) [Gr. *deka*, ten, + Fr. *litre*, liter] A measure of 10 L, equivalent to 10,000 ml, or about 10.57 qt. SEE: *deciliter*.

decameter (dēk'ă-mē-tēr) [Gr. *deka*, ten, + *metron*, measure] A measure of 10 m; 393.71 in.

decannulation (dē-kān'nū-lā'shūn) The removal of a cannula.

decant (dē-kānt') [L. *de*, from, + *can-*

thus, rim of a vessel] To pour off liquid so the sediment remains in the bottom of the container.

decantation (dē'kān-tā'shūn) Gentle pouring off of a liquid so the sediment remains.

decapitation (dē-kāp'ī-tā'shūn) [n + *caput*, head] **1.** Separation of the head from the body; beheading. **2.** Separation of the head from the shaft of a bone.

decapsulation (dē-kāp'sū-lā'shūn) [n + *capsula*, little box] Removal of a capsule of an organ.

decarboxylase (dē'kār-bōk'sī-lās) An enzyme that catalyzes the release of carbon dioxide from compounds such as amino acids.

decarboxylation (dē'kār-bōks-ī-lā'shūn) A chemical reaction in which the carboxyl group, —COOH, is removed from an organic compound. SYN: *decarboxylation*.

decay (dē-kā') [n + *cadere*, to fall, die]

1. Gradual loss of vigor with physical and mental deterioration as may occur in aging. **2.** To waste away. **3.** Decomposition of organic matter by the action of microorganisms. SEE: *caries*; *cementoclasia*. **4.** Disintegration of radioactive substances.

radioactive d. The continual loss of energy by radioactive substances. Disintegration of the nucleus by the emission of alpha, beta, or gamma rays eventually results in the complete loss of radioactivity. The time required for some materials to become stable may be minutes and, for others, thousands of years. SEE: *half-life*.

tooth d. Caries.

deceleration (dē-sēl'ē-rā'shūn) **1.** A rapid decrease in velocity. **2.** A fall in the baseline fetal heart rate as recorded by the fetal monitor.

Early deceleration coincides with uterine contractions and reflects the fetal vagal response to head compression during these contractions. Normal baseline variability is evident throughout the interval between uterine contractions. *Late deceleration* occurs after contraction and reflects insufficient blood flow through the intervillous spaces of the placenta. *Variable deceleration* does not occur at any consistent point during contractions. The monitor record also exhibits different degrees and shapes. Variable deceleration indicates interference with blood flow through the umbilical vessels caused by cord compression. SEE: *fetal distress*.

deceleration injury An injury in which a moving body hits a stationary object, for example, when a falling patient lands on the ground.

decennial (dī-sēn'ē-īl) [L. *decennium*, period of ten years] Occurring every tenth year. Some booster vaccinations, e.g., against tetanus and diphtheria,

were traditionally administered one decade after the prior dose.

decebrate (dē-sēr'ē-brāt) [ʹ + *cerebrum*, brain] **1.** To eliminate cerebral function by decerebration. **2.** A person or animal who has been subjected to decerebration.

decebrate posture The rigid body position assumed by a patient who has lost cerebral control of spinal reflexes, usually as a result of an intracranial catastrophe. The patient's arms are stiff and extended, the forearms are pronated, and the deep tendon reflexes exaggerated.

decebration (dē-sēr-ē-brā'shūn) Removal of the brain or cutting of the spinal cord at the level of the brainstem. SEE: *pitling*.

dechlorination, dechloridation (dē-klō'rī-nā'shūn) [ʹ + *Gr. chloros*, green] Reduction in the amount of chlorides in the body by reduction of or withdrawal of salt in the diet.

deci- [L. *decimus*, tenth] Prefix indicating one tenth.

decibel (dēs'ī-bēl) [L. *decimus*, tenth, + *bel*, unit of sound] ABBR: dB. A unit for expressing logarithmically the pressure or power (and thus degree of intensity or loudness) of sound. The dB is a tenth of a bel.

decidua (dē-sīd'ū-ā) [L. *deciduus*, falling off] The endometrium or lining of the uterus and the tissue around the ectopically located fertilized ovum, e.g., in the fallopian tube or peritoneal cavity. The decidua has an interior compact layer and a surface spongy layer. The vasculature, glands, and interstitial cells of the endometrium undergo marked hypertrophy during pregnancy. **decidual** (-āl), *adj.*

d. basalis The part of the decidua that unites with the chorion to form the placenta. SYN: *decidua serotina*.

d. capsularis The part of the decidua that surrounds the chorionic sac.

d. menstrualis The layer of the uterine endometrium that is shed during menstruation.

d. parietalis The endometrium during pregnancy except at the site of the implanted blastocyst.

d. serotina *Decidua basalis*.

deciduate (dē-sīd'ū-āt', -īt) [ʹ] **1.** To shed the decidua (lining) of the uterus. **2.** A mammal that sheds the lining of the uterus during the birth of its offspring.

deciduation (dē-sīd'ū-ā'shūn) The loss of the decidua during menstruation.

deciduitis (dē-sīd'ū-ī'tīs) [ʹ + *Gr. itis*, inflammation] Inflammation of the decidua.

deciduoma (dē-sīd'ū-ō'mā) [ʹ + *Gr. oma*, tumor] A uterine tumor containing decidual tissue, thought to arise

from portions of decidua retained within the uterus following an abortion.

benign d. During pregnancy, the normal invasion of the uterine musculature by the syncytium, which disappears after the gestation is completed.

Loeb's d. [Leo Loeb, Am. pathologist, 1869–1959] Decidual tissue produced within the uteri of experimental animals as a result of mechanical or hormonal stimulation.

malignant d. A uterine tumor, now commonly called a choriocarcinoma. SYN: *choriocarcinoma*; *chorioepithelioma*.

deciduous (dē-sīd'ū-ūs) [L. *deciduus*] Falling off; subject to being shed.

decigram (dēs'ī-grām) [L. *decimus*, tenth, + *Gr. gramma*, small weight] One tenth of a gram.

deciliter (dēs'ī-lē-tēr) [ʹ + *Fr. litre*] ABBR: dL. A unit of volume in the SI system of measurement that is equal to 0.1 L or 100 ml.

decimeter (dēs'ī-mē'tēr) [ʹ + *Gr. metron*, measure] One tenth of a meter.

decipara (dē-sīp'ā-rā) [ʹ + *parere*, to bring forth, to bear] A woman who has given birth for the tenth time to an infant or infants, alive or dead, weighing 500 g or more.

decision aid An educational tool designed to assist patients or health care professionals in making choices about aspects of care. SYN: *decision rule*.

decision analysis A logical, consistent approach to making a medical decision when its consequences cannot be foretold with certainty. Uncertainties in medical practice are due to many factors (e.g., biological variation and limitations in the clinical data available for an individual patient). There are three steps in the analysis:

1. the consequences of each option is described schematically by the use of a decision tree;

2. probability is used to quantify the uncertainties inherent in each option; and

3. each possible outcome is designated by a number that measures the patient's preference for that outcome as compared with the others.

After the last step is completed, each outcome is assigned a "utility" value in which 1.0 indicates a perfect outcome and 0 is the worst possibility. Decision analysis may be used to help members of the health care team and the patient make logical choices concerning management of illness.

decision making The use of adequate information to come to a conclusion and make choices.

decision making, readiness for enhanced A pattern of choosing courses of action that is sufficient for meeting short- and long-term health-related goals and can

be strengthened. SEE: *Nursing Diagnoses Appendix*.

decision rule SEE: *decision aid*.

decision tree A graphic analysis of the decisions or choices available to a health care manager or provider. The graph includes estimates of the probabilities of all the events that may result from each selection or choice. SEE: *decision analysis*.

Declaration of Geneva A statement adopted in 1948 by the Second General Assembly of the World Medical Association. Some medical schools use it at graduation exercises.

"At the time of being admitted as Member of the Medical Profession I solemnly pledge myself to consecrate my life to the service of humanity. I will give to my teachers the respect and gratitude which is their due; I will practice my profession with conscience and dignity. The health of my patient will be my first consideration; I will respect the secrets which are confided in me; I will maintain by all the means in my power, the honor and the noble traditions of the medical profession; my colleagues will be my brothers; I will not permit considerations of religion, nationality, race, party politics or social standing to intervene between my duty and my patient; I will maintain the utmost respect for human life, from the time of conception; even under threat, I will not use my medical knowledge contrary to the laws of humanity. I make these promises solemnly, freely and upon my honor." SEE: *Hippocratic oath*; *Nightingale Pledge*; *Prayer of Maimonides*.

Declaration of Hawaii Ethical and practice guidelines developed by the World Psychiatric Association for the worldwide practice of psychiatry. It defines psychiatry as medical treatment of psychiatric disorders, requires maintenance and use of current clinical knowledge, and describes the parameters of the therapist-patient relationship and the need to safeguard an incapacitated or judgment-impaired individual's rights. Assessments are to be performed with full knowledge by the person being assessed, and confidentiality is protected in the course of the therapeutic intervention. Research is to be undertaken with the supervision of an ethical committee, and established rules are followed for research by individuals properly trained for research.

Declaration of Helsinki (hél'sing-kē) A guideline promulgated by the World Medical Association that governs the ethical treatment of patients enrolled in medical research.

declination (dék'lī-nā'shūn) Cyclophoria.

declinator (dék'līn-ā'tor) [L. *declinare*, to turn aside] An instrument used dur-

ing trephining for holding apart the dura mater.

decline (dē-klīn') 1. Progressive decrease. 2. The declining period of a disease.

functional d. The loss of independent function that often accompanies an acute illness or the cumulative effects of a chronic illness, a restriction in activities, or a change in diet, esp. in older persons.

decoction (dē-kōk'shūn) [L. *de*, down, + *coquere*, to boil] A liquid medicinal preparation made by boiling vegetable substances with water. Liquid extracts obtained this way are often used in herbal medicines.

decolorize (dē-kōl'ē-rīz") [" + *colorize*] To remove dye from a stained microscopic specimen, usually with an acid-alcohol wash.

decompensation (dē-kōm'pēn-sā'shūn) [L. *de*, from, + *compensare*, to make good again] 1. Failure of the heart to maintain adequate circulation, or failure of other organs to work properly during stress or illness. 2. In psychology, failure of defense mechanisms such as occurs in initial and subsequent episodes of acute mental illness.

decomposer (dē'kōm-pō'zēr) Bacteria and fungi that degrade dead organic matter to simple organic and inorganic molecules. SEE: *biodegradation*.

decomposition (dē-kōm-pō-zīsh'ūn) [" + *componere*, to put together] 1. The putrefactive process; decay. 2. Reducing a compound body to its simpler constituents. SEE: *biodegradation*; *fermentation*; *resolution*.

double d. A chemical change in which the molecules of two interacting compounds exchange a portion of their constituents.

hydrolytic d. A chemical change in substances due to addition of a molecule of water.

simple d. A chemical change by which a molecule of a single compound breaks into its simpler constituents or substitutes the entire molecule of another body for one of these constituents.

decompress (dē'kōm-prēs') 1. To pass from a state of stress to tranquility. 2. To relieve pressure, esp. that produced by air or gas.

decompression [" + *compressio*, a squeezing together] 1. The removal of pressure, as from gas in the intestinal tract. SEE: *Wangensteen tube*. 2. The slow reduction or removal of pressure on deep-sea divers and caisson workers to prevent development of nitrogen bubbles in the tissue spaces.

abdominal d. A technique used in obstetrics to facilitate childbirth. The abdominal area is surrounded by an airtight chamber in which pressure may be intermittently decreased below atmo-

spheric pressure. During labor pains, the pressure is decreased and the uterus is permitted to work more efficiently because the abdominal muscles are elevated away from the uterus.

explosive d. In aviators or divers, decompression resulting from an extremely rapid rate of change to a much lesser pressure. This may occur if a high-altitude aircraft suddenly loses its cabin pressure or if a diver ascends rapidly. Either of these causes violent expansion of body gases. SEE: *decompression illness*.

surgical d. The freeing of a trapped body part, e.g., the operative release of a nerve from entrapment by neighboring structures.

decompression illness Aeroembolism due to an excessively rapid ascent to the surface by a deep-sea diver. SEE: *aeroembolism*. SYN: *caisson disease*; *diver's palsy*.

TREATMENT: Affected patients should be transported to specialized treatment centers where recompression or hyperbaric chambers are available.

deconditioning (dē'kōn-dīsh'ŭ-nīng) A loss of physical fitness due to failure to maintain an optimal level of physical activity or training. Inactivity for any reason may lead to deconditioning. For example, individuals placed on prolonged bedrest may experience overall deconditioning of the skeletal, muscular, circulatory, and respiratory systems.

decongestant (dē-kūn-jēs'tīnt) 1. Reducing congestion or swelling. 2. An agent that reduces congestion, esp. nasal.

decontamination (dē-kūn-tām'ī-nā'shūn) The use of physical, chemical, or other means to remove, inactivate, or destroy harmful microorganisms or poisonous or radioactive chemicals from persons, spaces, surfaces, or objects. Decontamination differs from sterilization. It renders a person or object mostly rather than completely free of contaminants. Decontamination of people exposed to hazardous materials should be performed in an orderly fashion. Tools and outer gloves should be removed first; surface contaminants should next be blown or washed away; any breathing apparatus, protective equipment, and clothing should then be removed, followed by careful washing and drying of the skin. Finally, the exposed person should be medically monitored until he or she is judged to be safe.

gastrointestinal d. Cleansing of the gastrointestinal tract to remove toxic substances, pills taken in overdose, or microorganisms. Activated charcoal or polyethylene glycol solutions (e.g., Golytely) given orally reduce the uptake of many drugs from the gastroin-

testinal tract. Before bowel surgery, oral antibiotics (e.g., neomycin) may be given to reduce the number of bacteria within the intestines.

hand d. Hand hygiene.

decorin A small proteoglycan that opposes the actions of transforming growth factor beta in connective tissues, esp. in the response to inflammation, injury, or scarring.

decorin-binding protein One of two antigens released by *Borrelia burgdorferi* (the spirochete that causes Lyme disease). The antigen may be useful as a target for Lyme disease vaccination.

decorticate posture (dē-kōr'tī-kīt, -kāt") The characteristic posture of a patient with a lesion at or above the upper brainstem. The patient is rigidly still with arms flexed, fists clenched, and legs extended. SYN: *decorticate rigidity*.

decortication (dē-kōr'tī-kā'shūn) [" + *cortex*, bark] Removal of the surface layer of an organ or structure, as removal of a portion of the cortex of the brain from the underlying white matter.

pulmonary d. Removal of the pleura of the lung or a portion of the surface lung tissue.

renal d. Removal of the capsule of the kidney.

decrement (dēk'rē-mēnt) [L. *decrementum*, decrease] 1. The period in the course of a febrile disease when the fever subsides. 2. A reduction in the response of the nervous system to repeated stimulation. 3. A decrease in the quantity or force of an entity. 4. The portion of each uterine contraction between acme and baseline. The downslope is recorded by the fetal monitor.

decrepitation (dē-krēp'ī-tā'shūn) A crackling noise.

decrepitude (dē-krēp'ī-tūd) A state of general feebleness and decline that sometimes accompanies old age; weakness; infirmity.

decrudescence (dē-kroo-dēs'ēns) A decrease in the severity of disease symptoms.

decubitus (dē-kū'bī-tūs) [L., a lying down] 1. Pressure sore. 2. A patient's position in bed. **decubital** (-tāl), *adj.*

Andraf's d. Lying on the sound side during the early stages of pleurisy.

dorsal d. Lying on the back.

lateral d. Lying on the side.

ventral d. Prone positioning. Also known as supine positioning.

decubitus projection A radiographic procedure, using the decubitus positions and the central ray of the x-ray beam placed horizontally, which aids in the demonstration of air-fluid levels.

decubitus ulcer Pressure sore.

decussate (dē-kūs'āt) [L. *decussare*, to make an X] 1. To cross, or crossed, as in the form of an X. 2. Interlacing or crossing of parts.

decussation (dĕ'kū-sā'shŭn) **1.** A crossing of structures in the form of an X. **2.** A place of crossing. SYN: *chiasma*.

d. of pyramids Crossing of fibers of pyramids of the medulla oblongata from one pyramid to the other.

optic d. Crossing of fibers of the optic nerves; the optic chiasma.

dedifferentiation (dĕ-dif'er-ĕn-chĕ-ā'shŭn)

1. The return of parts to a homogeneous state. **2.** The process by which mature differentiated cells or tissues become sites of origin for immature elements of the same type, as in some cancers.

deductible (dĭ-dŭk'ti-bĭl) An expense borne by an insured party before any obligated payments are made by the insurer.

deduction (dĕ-dŭk'shŭn) Reasoning from the general to the particular.

de-afferented state (dĕ-ĕf'er-ĕn'tĕd) Locked-in syndrome.

deep [AS. *deop*] Below the surface.

deep bite [ˈ + ˈ] In orthodontics, a colloquial term for a pathological overbite.

deepening (dĕp'ĕn-ing) [ˈ] In hypnotherapy, achieving a more relaxed or receptive state of mind.

deer fly A biting fly, *Chrysops discalis*, that transmits the causative organism of deer fly fever, a form of tularemia.

de-escalate (dĕ-ĕs'kā-lāt') To defuse a potentially dangerous interaction between two or more individuals.

DEET *N*, *N*-diethyl-3-methylbenzamide, a potent, broad-spectrum insect repellent.



Although topically applied DEET is generally safe when applied to the skin, it should not come in contact with plastics, which it may dissolve. DEET is not recommended for use by children under the age of two.

DEF *decayed, extracted, filled.*

defamation (dĕf'ā-mā'shŭn) In law, an act of communication that is a quasi-intentional tort (civil wrong) that occurs when one person communicates false information to another person that injures or harms a third person who, as a result, is shamed, held in contempt, ridiculed, loses status or reputation in the community, or experiences loss of employment or of earnings. Oral defamation is slander. Written defamation is libel.

defatted (dĕ-fāt'ĕd) [L. *de*, from, + AS. *faelt*, to fatten] Freed from or deprived of fat.

defecation (dĕf-ĕ-kā'shŭn) [L. *defaecare*, to remove dregs] Evacuation of the bowels. The expulsion of a fecal mass is accompanied by coordinated action of the following: involuntary contraction of the circular muscle of the rectum behind the bowel mass, followed by contraction

of the longitudinal muscle; relaxation of the internal (involuntary) and external (voluntary) sphincter ani; voluntary closure of the glottis, fixation of the chest, and contraction of the abdominal muscles, causing an increase in intra-abdominal pressure. SEE: *constipation; feces; stool*.

defecography (dĕf'ĕ-kō'grāfĕ) Radiography of the anorectal region after instillation of a barium paste into the rectum. The defecation process is imaged by direct filming or video recording.

defect (dĕ'fĕkt) A flaw or imperfection.

alcohol-related birth d. A congenital abnormality that reflects the teratogenic effects of maternal alcohol use on developing fetal structures. The most common abnormalities involve the heart, eyes, kidneys, and skeleton. SEE: *fetal alcohol effects; fetal alcohol syndrome*.

atrial septal d. A congenital heart defect in which there is an opening between the atria.

birth d. SEE: *birth defect*.

congenital d. An imperfection present at birth.

congenital heart d. A structural abnormality of the heart and great blood vessels that occurs during intrauterine development. Abnormalities are commonly classified by the presence or absence of cyanosis. Acyanotic abnormalities include atrial and ventricular septal defects, coarctation of the aorta, and patent ductus arteriosus. Cyanotic defects include tetralogy of Fallot, transposition of the great vessels, and hypoplastic left-sided heart syndrome.

filling d. An interruption of the contour of a body structure revealed by radiographic contrast material. It may be due to an obstruction caused by blood clots, emboli, malignancies, or extrinsic compression.

luteal phase d. SEE: *luteal phase defect*.

septal d. A defect in one or more of the septa between the heart chambers.

defective, *adj.*

defendant (dĭ-fĕn'dint) In law, the person, entity, or party charged or sued in a legal action. The defendant is the party accused of a criminal or civil wrong from whom legal relief or damages are sought. SEE: *plaintiff*.

defense [L. *defendere*, to repel] **1.** Resistance to disease. **2.** Protective action against harm or injury. SYN: *defense mechanism*.

defense-oriented response A coping mechanism in which a person tries to protect him- or herself from anxiety or psychological harm.

defense reaction A mental response whose purpose (according to classical psychoanalysis) is to protect the ego.

defense reflex Retraction or tension in

response to an action or threatened action.

defensin (dē-fēn'sin) [term coined by Robert I. Lehrer, U.S. physician, b. 1938] Destructive peptides (groups of amino acids) found in the granules of neutrophils and other phagocytic cells that kill bacteria and fungi by destroying their membranes. Defensins are active against bacteria, fungi, and enveloped viruses *in vitro*. They may contribute to host defenses against susceptible organisms.

defensive Defending; protecting from injury.

deferens (dēf'ēr-ēnz) [L. *deferens*, carrying away] Deferent.

deferent (dēf'ēr-ēnt) Conveying something away from or downward. SEE: *afferent*; *efferent*.

deferential (dēf'ēr-ēn'shāl) [L. *deferre*, to bring to] Pert. to or accompanying the ductus deferens.

deferentitis (dēf'ēr-ēn-ti'tis) [" + Gr. *itis*, inflammation] Inflammation of the ductus deferens.

deferoxamine mesylate (dē-fēr-ōks'ā-mēn) A drug with a very high affinity for iron. It is used parenterally to reduce the iron overload in patients with hemochromatosis, acute iron poisoning, or multiple blood transfusions.

defervescence (dēf'ēr-ves'ēns) [L. *defervescere*, to become calm] The subsidence of fever to a normal temperature

defibrillation (dē-fib'ri-lā'shūn) 1. Termination of ventricular fibrillation (vfib) with electrical countershock(s). This is the single most important intervention a rescuer can take in patients who have suffered cardiac arrest due to vfib or pulseless ventricular tachycardia.

PATIENT CARE: Traditional defibrillation uses a monophasic waveform: a single energy pulse. Monophasic electrical current travels in one direction from one electrode or paddle through the heart to the other electrode. In a successful attempt the energy converts the lethal rhythm to a rhythm with a pulse, and to be successful, this type of defibrillation must deliver high energy (200 or more joules).

The biphasic defibrillator delivers current through the heart in two directions, flowing through the heart and back again to the first electrode. Biphasic defibrillation uses lower levels of electrical current than monophasic techniques. Advantages for the patient include lower risk of skin burns, less myocardial injury and dysfunction following defibrillation, and more rapid return of ejection fraction and mean arterial pressure to baseline. In addition, the lower energy levels permit the equipment to be smaller, lighter, less demanding on batteries, and easier to maintain than monophasic models. Bi-

phasic defibrillation usually is initiated at 120 to 150 joules, with the level increased as needed. In cardioversion, only 30 joules are typically required. Health care professionals should become familiar with the type of defibrillator in their facility so that they can safely and rapidly operate defibrillators in an emergency. Staff-development sessions should be provided by the agency to ensure competency.

2. A term formerly used to signify termination of atrial fibrillation. The contemporary terms are conversion or cardioversion.

defibrillator (dē-fib'ri-lā'tor) A device that delivers an electrical shock that completely depolarizes the myocardium, producing a brief period of asystole. The goal of defibrillation is to let the sinoatrial node recover control of the heart's electrical activity and terminate potentially fatal heart rhythms, such as ventricular tachycardia and ventricular fibrillation. SEE: *cardioversion*.

A defibrillator may be used with conductive pads applied to the chest wall or may be surgically implanted in the chest, e.g., in patients who have previously been resuscitated from sudden death.

automated external d., automatic external defibrillator ABBR: AED. Automatic defibrillator.

automatic d. A defibrillator that performs all functions by computer (analyzes rhythm, selects an energy level, charges the machine, and shocks the patient). The operator applies adhesive paddles and turns the machine on, then makes certain that no one is in contact with the patient. SYN: *automated external defibrillator*.

automatic implanted cardioverter d. ABBR: AICD. A defibrillator surgically implanted in patients at high risk for sudden cardiac (arrhythmia-induced) death. The device automatically detects and treats life-threatening arrhythmias.

automatic implanted ventricular d. Cardioverter surgically implanted in patients at high risk for sudden cardiac death from ventricular arrhythmias. This device is capable of automatically restoring normal heartbeat.

manual d. A defibrillator that requires the operator to assess the need for defibrillation (by reviewing monitor data and the patient's clinical condition), select an energy level, charge the machine, and deliver shock.

semi-automatic d. A defibrillator that assesses rhythm and gives voice prompts to the operator concerning the patient's condition, the energy level, charging, and shocking the patient.

defibrination, defibrinization (dē-fib'ri-nā'shūn) [L. *de*, from, + *fibra*, fiber]

The process of removing fibrin, usually from blood. SEE: *coagulation, blood*.

deficiency (dē-fīsh'ēn-sē) [L. *deficere*, to lack] A lack; less than the normal amount.

biotinidase d. An autosomal recessive disease in which affected children fail to metabolize biotin effectively. Seizures, encephalopathy, neurodevelopmental delay, spasticity or diminished muscle tone, paresis, visual disturbances, deafness, skin rash, and hair loss commonly occur. Immediate ongoing treatment with supplemental biotin can effectively suppress the symptoms of this disease.

branching enzyme d. Type IV glycogen storage disease.

functional iron d. A lack of iron significant enough to affect the development of healthy red blood cells. It may precede the appearance of measurable anemia.

PATIENT CARE: Functional iron deficiency may be defined by the presence of hypochromatic red cells; by an increase in hemoglobin production after test doses of administered iron; or, most accurately, by the measurement of the mean hemoglobin content of reticulocytes. It is common in patients receiving hemodialysis and in critically ill persons.

TREATMENT: Treatments include iron and folate supplements and epoetin alpha (Procrit) to increase RBC production. In emergencies, infusion of fresh frozen packed cells or washed packed cells provide temporary relief.

medium-chain acyl-CoA dehydrogenase d. ABBR: MCADD. An inherited disorder of faulty nutrient oxidation in which affected infants are unable to metabolize fatty acids when their stores of blood glucose are low (e.g., between meals). The disease is common, occurring in 1 in 10,000 infants, and often fatal in infancy. Surviving infants may suffer brain damage from inadequate nutrition to the central nervous system during fasts.

ornithine transcarbamylase d. The most common urea cycle enzyme deficiency disorder inherited as an autosomal recessive trait, characterized by the absence of ornithine transcarbamylase (an enzyme in the urea cycle), which results in the excessive buildup of ammonia in the bloodstream. The disease is typically diagnosed in infancy and occurs in less than 1 in 8000 births.

phosphofructokinase d. ABBR: PFKM. Type VII glycogen storage disease.

deficiency disease A condition due to lack of a substance essential in body metabolism. The deficiency may be due to inadequate intake, digestion, absorption, or use of foods, minerals, water, or

vitamins. It may also be due to excess loss through excretion or to an intestinal parasite such as hookworm or tapeworm. Deficiency diseases include night blindness and keratomalacia (caused by lack of vitamin A); beriberi and polyneuritis (lack of thiamine); pellagra (lack of niacin); scurvy (lack of vitamin C); rickets and osteomalacia (lack of vitamin D); pernicious anemia (lack of gastric intrinsic factor and vitamin B₁₂).

deficit (dēf'ī-sīt) A deficiency (e.g., a loss of neurological function after a stroke).

isomolar volume d. An equal proportion of loss of water and electrolytes from the body.

pulse d. A condition in which the speed of the pulse at the radial artery is less than the pulse of the heart. This is seen in atrial fibrillation.

deficit syndrome of schizophrenia Negative symptoms of schizophrenia that persist or are found even during psychotic remissions. Such symptoms include social withdrawal, loss of motivation, poverty of speech, and blunting of affect.

definition [L. *definire*, to limit] **1.** The precise determination of limits, esp. of a disease process. **2.** The detail with which images are recorded on radiographic film or screens.

definitive (dī-fin'ī-tiv) Clear and final; without question.

deflection (dē-flēk'shūn) A turning away from a previous or usual course.

defloration (dēf'lō-rā'shūn) [L. *de*, from, + *flos, flor-*, flower] Rupture of the hymen during coitus, by accident, surgically, or through vaginal examination. Not many women have a hymen that is of such size or consistency as to require its surgical rupture. SEE: *hymen; virginity*.

deflorescence (dē'flōr-es'ēns) Disappearance of an eruption of the skin.

defluvium (dē-floo've-ūm) [L.] A falling or flowing out.

defocus (dē-fō'kūs) [L. *de*, away from, + *focus*, hearth] The blurring of a visual image caused by spherical aberration, chromatic aberration, or diffraction. Also called *optical defocus*. SYN: *optical d.*

optical d. Defocus.

deformability (dē-form'ā-bīl'ī-tē) Capability of being deformed.

deformation (dē'for-mā'shūn) [L. *de*, from, + *forma*, form] **1.** The act of deforming. **2.** A disfiguration.

deformity (dī-fōr'mī-tē) Alteration in the natural form of a part or organ; distortion of any part or general disfigurement of the body. It may be acquired or congenital. If present after injury, deformity usually implies the presence of fracture, dislocation, or both. It may be due to extensive swelling, extravasation

of blood, or rupture of muscles and severe contracture of scar tissue.

anterior d. Abnormal anterior convexity of the spine. SYN: *lordosis*.

bird's beak d. A sharply tapering loop of bowel seen on plain films of the abdomen in patients with a volvulus (twisting or torsion) of the sigmoid colon.

boutonnière d. Finger position marked by extension of the metacarpophalangeal and distal interphalangeal joints and flexion of the proximal interphalangeal joint. This condition outwardly resembles a pseudoboutonnière deformity. SEE: *pseudoboutonnière d.*; *boutonnière d. for illus*.

ETIOLOGY: A rupture of the central extensor tendon of the involved finger. The tendon then displaces palmarly relative to the proximal interphalangeal joint.

TREATMENT: The finger is splinted with the proximal and distal interphalangeal joints in extension. Surgery may be required for patients who do not respond to conservative treatment.

Chiari's d. Arnold-Chiari deformity.

gunstock d. A deformity in which the forearm, when extended, makes an angle with the arm because of displacement of the axis of the extended arm. It is caused by a condylar fracture at the elbow.

habit-tic d. Horizontal sharp grooving in a band across the tip of the nailbed. It is caused by biting or picking the proximal nail fold of the thumb with the index fingernail.

Madelung's d. SEE: *Madelung's deformity*.

pseudoboutonnière d. Finger posture marked by extension of the metacarpophalangeal and distal interphalangeal (DIP) joints and flexion of the proximal interphalangeal (PIP) joint. This condition outwardly resembles a boutonnière deformity. It can be diagnosed by performing the boutonnière deformity examination and asking the patient to flex the DIP joint extension of the PIP joint. If the patient cannot extend the PIP joint but can actively flex the DIP joint, a pseudoboutonnière deformity is indicated. SEE: *boutonnière deformity*.

ETIOLOGY: A rupture of the volar plate over the area of the proximal and middle phalanges causes the volar plate to displace dorsally relative to the PIP joint.

TREATMENT: The finger is splinted with the PIP and DIP joints in extension. Surgery may be required for patients who do not respond to conservative treatment.

seal fin d. Obsolete term for ulnar deviation of the fingers in rheumatoid arthritis.

silverfork d. The peculiar deformity seen in Colles' fracture of the forearm, resembling the curve on the back of a fork. SEE: *Colles' fracture*.

Sprengel's d. Congenital upward displacement of the scapula.

Velpeau's d. SEE: *Velpeau's deformity*.

Volkmann's d. Congenital tibiotarsal dislocation.

defuse (dī-fūz') **1.** To remove a fuse from an explosive device. **2.** To make a crisis or other situation less dangerous or inflammatory.

deg *degeneration*; *degree*.

deganglionate (dē-gān'glē-ōn-āt') [n + Gr. *ganglion*, knot] To deprive of ganglia.

degeneracy The ability of structurally differing molecules to perform overlapping, redundant, or equivalent functions. This ability is a characteristic of some nucleic acid codons (which code for the same amino acid despite having differing base pairs) and some molecules used by the immune system.

degenerate (dē-jēn'ĕ-rāt') [L. *degenerare*, to fall from one's ancestral quality]

1. To deteriorate. **2.** Characterized by deterioration.

degeneration (dē-jēn'ĕ-r-ā'shūn) [L. *degeneratio*] Deterioration or impairment of an organ or part in the structure of cells and the substances of which they are a component; opposed to regeneration. **degenerative**, *adj.*

age-related macular d. SEE: *macular d.*

amyloid d. Degeneration of organs or tissues from amyloid deposits. The deposits are waxy and translucent and have a hyaline appearance. The liver, spleen, and kidneys are usually involved, but any tissue may be infiltrated.

ascending d. Nerve fiber degeneration progressing to the center from the periphery.

calcareous d. Infiltration of inorganic calcium into tissues.

caseous d. Cheesy alteration of tissues, as seen in tuberculosis.

cloudy swelling d. A condition in which protein in cells forms minute visible droplets. The droplets give the cells a cloudy appearance and may occur in any inflamed tissue.

colloid d. Mucoïd degeneration in the protoplasm of epithelial cells.

congenital macular d. Congenital degeneration of the macula of the eye.

cystic d. Cyst formation accompanying degeneration.

descending d. Nerve fiber degeneration progressing toward the periphery from the original lesion.

fatty d. Deposit of abnormal amounts of fat in the cytoplasm of cells,

or replacement or infiltration of tissues by fat cells.

fibroid d. Change of membranous tissue into fibrous tissue.

frontotemporal lobar d. Pick's disease.

granulovacuolar d. A pathological finding in the brain cells of some patients with Alzheimer's dementia in which the neuronal cytoplasm is partly replaced by cavities that contain particles resembling grit or sand.

gray d. Degeneration in myelinated nerve tissue due to chronic inflammation, causing the nerve tissue to turn gray.

hepatocerebral d. Loss of nerve and supporting cells of the brain from multiple episodes of hepatic encephalopathy or coma. This condition may be caused by Wilson's disease or other insults to the liver (e.g., hepatic coma produced by alcoholic, drug-induced, or viral hepatitis).

hepatolenticular d. Wilson's disease.

hyaline d. A form of degeneration in which the tissues assume a homogeneous, glassy appearance. It is caused by hyaline deposits replacing musculo-elastic elements of blood vessels with a firm, transparent substance that causes loss of elasticity. It is responsible for hardening of the arteries and is often followed by calcification or deposit of lime salts in dead tissue. Calcification also may result in concretions. SYN: *vitreous degeneration*; *Zenker's degeneration*.

hydropic d. Pathological change in cells marked by the appearance of water droplets in the cytoplasm.

lipoidal d. Deposition of fat droplets in cells.

macular d., age-related macular degeneration ABBR: MD. Loss of pigmentation in the macular region of the retina, usually affecting those over 50. It is a common disease of unknown cause that produces central visual field loss and is the leading cause of permanent visual impairment in the U.S. By age 75, about 15% of Americans are affected. Contributing factors to this disease include a family history of age-related macular degeneration, advancing age, cataract surgery, hyperlipidemia, hypertension, obesity, smoking, and a diet low in carotenoids, vitamin C, vitamin E, and zinc.

SYMPTOMS: There are two kinds of macular degeneration: wet and dry. In wet MD, neovascularization intrudes under the retinal pigment epithelium from the choroid, where the new blood vessels may suddenly bleed or leak fluid, distort the normal architecture of the macula, and degrade central visual acuity. The visual loss caused by wet MD is an emergency. In dry MD, the

more common and more benign form, hard and soft drusen accumulate beneath the retinal pigment epithelium. They may cause slowly progressive blurring of central vision or may occasionally and gradually lead to wet MD.

The central visual loss that marks macular degeneration can make reading, working with the hands, driving, or recognizing people's faces difficult because the center of the visual field is the region of greatest loss of visual acuity (i.e., a central scotoma). Peripheral vision is preserved in this disease. SEE: *visual field* for illus.

TREATMENT: Laser photocoagulation of new blood vessel membranes can help arrest visual loss in some patients with the exudative form of age-related macular degeneration, changing the wet form to the dry form. However, this form of treatment is complicated by a high rate of recurrence and some immediate visual loss in a scotoma. Other treatments include antiangiogenic drugs, regimens with Vitamins A, C, E, and zinc and copper, photodynamic therapy, radiation therapy, and retinal surgery.

PATIENT CARE: The Amsler grid, and other testing devices such as a tangent screen, can be used to test patients for visual distortions due to retinal disease, but the validity and reproducibility of Amsler grid testing is poor. Low vision optical aids improve the quality of life for patients who retain good peripheral vision. Affected patients should be referred for visual rehabilitation.

mucoid d. Mucous degeneration.

mucous d. Deposition of mucus in the connective tissue of organs or in epithelial cells. SYN: *mucoid degeneration*; *myxomatous degeneration*.

myxomatous d. Mucoid degeneration.

Nissl d. SEE: *Nissl degeneration*.

pigmentary d. Degeneration in which affected cells develop an abnormal color.

polypoid d. Formation of polyp-like growths on mucous membranes.

secondary d. Wallerian d.

senile d. The bodily and mental changes that occur during pathological aging.

spongy d. Familial demyelination of the deep layers of the cerebral cortex. The affected area has a spongy appearance. Symptoms include mental retardation, enlarged head, muscular flaccidity, and blindness. Death usually occurs before 18 months of age.

subacute combined d. of spinal cord Degeneration of the posterior and lateral columns of the spinal column. Clinically, paresthesia, sensory ataxia, and sometimes spastic paraplegia are

present. The disease is the result of pernicuous anemia.

vacuolar d. Swelling of cells with an increase in the number and size of vacuoles. SYN: *cloudy swelling*.

vitelliform d. Best's disease.

vitreous d. Hyaline d.

wallerian d. SEE: *wallerian degeneration*.

waxy d. Amyloid degeneration seen in wasting diseases.

Zenker's d. SEE: *Zenker's degeneration*.

degenerative disease (dē-jěn'ě-ră-tiv) An illness resulting from aging, repetitive injury, or other pathologic causes.

degenerative joint disease Osteoarthritis.

deglutition (dē'gloo-tish'ün) The act of swallowing. **deglutitive**, *adj.*

Degos' disease ABBR: DD. A rare form of vasculitis that damages small blood vessels. The disease initially results in tissue infarction within the skin, but in some instances causes widespread and occasionally fatal tissue infarction in the gastrointestinal tract and other organs. SYN: *malignant atrophic papulosis*.

degradation (dēg'rě-dă'shün) [LL. *degradare*, to go down a step] Physical, metabolic, or chemical change to a less complex form. Foods are physically degraded during chewing and then chemically degraded from complete compounds, such as proteins and starches, to amino acids and sugars, respectively. SEE: *biodegradation*.

degranulation (dē-grăn'ü-lă'shün) The release of chemical mediators from preformed storage depots in cells, esp. hematological cells such as neutrophils, mast cells, basophils, macrophages, and platelets.

degree (dē-grē') 1. A unit of measurement of temperature. The SI unit is in degrees Celsius (°C) based on 100 units between the freezing (ice) point of water and the boiling point of water. On the thermodynamic scale, the unit is the Kelvin (K), the same size as one degree Celsius, but with a starting point at absolute zero. Finally, in common use in the U.S. is the Fahrenheit degree (°F), a scale based on the ice point of water at 32 °F and boiling point at 212 °F. 2. A unit of angular measure. 3. A stage of severity of a disease or injury (e.g., second-degree burn). 4. Evidence of academic attainment granted by the institution in which the individual studied.

degrees of freedom ABBR: d.f. In defining the properties of a statistical sample, the number of independent observations in a quantity. For example, if a sample contains a total of 10 children who are being classified by hair color (brown, black, or blond) and it is known that four of the children have blond

hair, then there are two degrees of freedom. If, at the beginning of the investigation, the hair color of all the subjects is unknown, there are three degrees of freedom.

degustation (dē'gūs-tă'shün) [L. *degustatio*] The sense of taste; the function or act of tasting.

dehiscence (dē-his'ëns) [L. *dehiscere*, to gape] 1. A bursting open, as of a graafian follicle or a wound, esp. a surgical abdominal wound. 2. In dentistry, an isolated area in which the tooth root is denuded of bone from the margin nearly to the apex. It occurs more often in anterior than posterior teeth, and more on the vestibular than the oral surface.

PATIENT CARE: Dehiscence can be lessened by assessing nutritional status and risk factors such as obesity or malnourishment before surgery; by ensuring proper nutrition as time permits; and by providing support for the wound during coughing and movements that strain the incision. Surgically, stay sutures and wound bridges may minimize cases at risk. If dehiscence occurs, the surgeon is notified immediately, and the wound is covered with a sterile dressing or towel moistened with warm sterile physiological saline solution. The covering may need to be held in place by hand to keep abdominal tissues from "spilling" into the bed until a restraining bandage can be applied. The patient should flex the knees slightly to decrease tension on the abdominal muscles. The patient is kept calm and quiet, is reassured that measures are being taken to care for the wound, and is prepared physically and emotionally for surgery to close the wound. SEE: *Nursing Diagnoses Appendix*.

dehumanization (dē-hü'măn-i-ză'shün) [L. *de*, from, + *humanus*, human] Loss of human qualities, as occurs in psychotic or in previously normal people subjected to torture or mental stress imposed by others.

dehumidifier (dē'hü-mid'i-fēr) A device for removing moisture from the air.

dehydrate (dē-hi'drăt) [L. *de*, from, + Gr. *hydor*, water] 1. In chemistry, to deprive of, lose, or become free of water. 2. To lose or be deprived of water from the body or tissues. 3. To become dry.

dehydration (dē'hi-dră'shün) 1. The removal of water from a chemical (e.g., by surface evaporation or by heating it to release water of crystallization). 2. The clinical consequences of negative fluid balance (i.e., of fluid intakes that fail to match fluid losses). Dehydration is marked by thirst, orthostatic hypotension, tachycardia, elevated plasma sodium levels, hyperosmolality, and in severe instances, cellular disruption, delirium, falls, hyperthermia, medica-

tion toxicity, renal failure, or death. SEE: *Nursing Diagnoses Appendix*.

ETIOLOGY: Worldwide, the most common cause of dehydration is diarrhea. In industrialized nations, dehydration also is caused by vomiting, fevers, heat-related illnesses, diabetes mellitus, diuretic use, thyrotoxicosis, hypercalcemia, and other illnesses. Patients at risk for dehydration include those with an impaired level of consciousness and/or an inability to ingest oral fluids, patients receiving only high-protein enteral feedings, older adults who don't drink enough water, and patients (especially infants and children) with watery diarrhea. Elderly individuals (especially those over age 85) are increasingly hospitalized for dehydration. Dehydration may be avoidable or preventable. Lengthy fasting prior to procedures, long waits in emergency departments, or increased physical dependency (simply being unable to pour water from a bedside container) may place patients at risk. Nursing home residents are at higher risk for dehydration than older adults living independently, at least in part because of limited access to oral fluids. The elderly also are at risk because of reduced thirst-response, a decrease in total body fluids, and declining renal function. Clinical states that can produce hypertonicity and dehydration include a deficiency in synthesis or release of antidiuretic hormone (ADH) from the posterior pituitary gland (diabetes insipidus); a decrease in renal responsiveness to ADH; osmotic diuresis (hyperglycemic states, administration of osmotic diuretics); excessive pulmonary water loss in high fever states (especially in children); and excessive sweating without water replacement.



Dehydration should not be confused with fluid volume deficit. In the latter condition, water and electrolytes are lost in the same proportion as they exist in normal body fluids; thus, the electrolyte to water ratio remains unchanged. In dehydration, water is the primary deficiency, resulting in increased levels of electrolytes or hypertonicity.

PATIENT CARE: The goal of treatment in dehydration is to determine and treat the underlying cause. The patient is assessed for decreased skin turgor; dry, sticky mucous membranes; rough, dry tongue; weight loss; fever; restlessness; agitation; and weakness. Cardiovascular findings include orthostatic hypotension, decreased cardiovascular pressure, and a rapid, weak pulse. Hard stools result if the patient's problem is not primarily watery diarrhea. Urinary findings include a decrease in urine vol-

ume (oliguria), specific gravity higher than 1.030, and an increase in urine osmolality. Blood serum studies reveal increased sodium, protein, hematocrit, and serum osmolality.

Continued water loss is prevented, and water replacement is provided as prescribed, usually beginning with a 5% dextrose in water solution intravenously if the patient cannot ingest oral fluids. Once adequate renal function is present, electrolytes can be added to the infusion based upon periodic evaluation of serum electrolyte levels. Health care professionals can prevent dehydration by quickly treating causes such as vomiting and diarrhea, measuring fluid intake (and where possible urine output) in at risk patients, providing glasses and cups that are light and easily handled, teaching certified nursing assistants (CNAs) and family care providers to record fluid intake, observing urine concentration in incontinent patients, offering fluids in small amounts every time they interact with an at-risk patient, encouraging increased amounts of fluids (at the patient's preferred temperature) with and between meals and at bedtime (to 50 ounces or 1500 ml/D unless otherwise restricted), and offering preferred fluids and a variety of fluids (including frozen juice bars, water-rich fruits and vegetables), and assessing for excessive fluid loss during hot weather and replacing it.

voluntary d. The willful refusal to eat, drink, or accept fluids from health care providers, sometimes used by the terminally ill to hasten death.

dehydroandrosterone (dē-hī'drō-ān-drō-stēr'ōn, -drōs'tēr-ōn) A previously used name for dehydroepiandrosterone.

dehydrocholesterol (dē-hī'drō-kō-lēs'tēr-ōl) A sterol found in the skin and other tissues that forms vitamin D after activation by irradiation.

dehydrocholic acid (dē-hī'drō-kōl'ik) A bile salt that stimulates production of bile from the liver.

dehydrocorticosterone (dē-hī'drō-kor-tī-kōs'tēr-ōn) A physiologically active steroid, C₂₁H₂₈O₄, isolated from the adrenal cortex. It is important in water and salt metabolism. Also called 11-dehydrocorticosterone.

dehydroepiandrosterone (dē-hī'drō-ēp'ē-ān-drōs'tēr-ōn) ABBR: DHEA. An androgenic substance, C₁₉H₂₈O₂, present in urine. It has about one fifth the potency of androsterone. The level of this hormone in plasma decreases with age. It is promoted as an antiaging, anticancer, and antiatherosclerosis agent by alternative medicine practitioners.

dehydrogenase (dē-hī-drōj'ē-nās) An enzyme that catalyzes the oxidation of a

specific substance, causing it to give up its hydrogen.

alcohol d. An enzyme that catabolizes ethyl alcohol (ethanol) in the liver. When ethanol is consumed in relatively large amounts, it is instead catabolized by the microsomal ethanol oxidizing system, also in the liver. SEE: *system, microsomal ethanol oxidizing.*

dehydrogenate (dē-hī"drōj'ën-ät) To remove hydrogen from a chemical compound.

dehydroisoandrosterone (dē-hī"drō-ī"sō-än-drōs'tēr-ōn) A 17-ketosteroid excreted in normal male urine. It possesses androgenic activity.

deidentification (dē'ī-dēn'tī-fi-kā'shūn) The removal of personal identifying data (e.g., the patient's name, date of birth, address, phone number, social security number) from a medical record in order to ensure patient confidentiality.

deinstitutionalization (dē-in"sti-tū'shūn-äl-ī-zā'shūn) The placement of hospitalized psychiatric patients in the community in halfway houses, community mental health centers, residential hotels, group homes, or boarding houses.

deionization (dē-ī"ōn-ī-zā'shūn) Removal of ions from a substance, producing a substance free of minerals.

déjà entendu (dā'zhā ōn-tōn-doo') [Fr., already heard] **1.** Recognition of something previously understood. **2.** The illusion that what one is hearing was heard previously.

dejecta (dē-jèk'tā) [L. *dejectio*, injection] Feces; intestinal waste.

dejection, dejecture (dē-jèk'shūn, -tūr) **1.** A cast-down feeling or mental depression. **2.** Defecation or act of defecation.

Déjérine, Joseph Jules (dā'zhēr-ēn') French neurologist, 1849–1917.

D.'s syndrome A condition in which deep sensation is depressed but tactile sense is normal, caused by a lesion of the long root fibers of the posterior spinal column.

Déjérine-Sottas disease (dā'zhēr-ēn' sō'tōs) An inherited, progressive, motor, and sensory demyelinating neuropathy. Nerve roots from affected persons are hypertrophied.

deka-, dek- (dèk'ä) [Fm. Gr. *deka*, ten] A prefix used in the International System of Units (SI units) to signify 10¹.

delamination (dē-lām'ī-nā'shūn) [*l'* + *lamina*, plate] Division into layers, esp. that of a blastoderm into two layers—epiblast and hypoblast.

Delaney clause (dē-lā'nē) [After an amendment in 1958 made by James Delaney, Congressman from New York] A clause in the U.S. Food, Drug, and Cosmetic Act that bans any additive that causes cancer when it is consumed by animals or humans.

de Lange's syndrome (dē lāngz') [Cornelia de Lange, Dutch pediatrician,

1871–1950] SEE: *Cornelia de Lange syndrome.*

delayed health effect A consequence of an exposure to a contaminant, drug, toxin, or treatment that manifests itself months, years, or decades after the exposure.

delayed hypersensitivity reaction A localized skin response mediated by T cells, which occurs 24 to 72 hr after injection of a specific antigen to which the person has been previously sensitized. It is used routinely to screen for tuberculosis infection through injection of purified protein derivative of *Mycobacterium tuberculosis*. In patients with immunodeficiency, common microbial antigens to which most people have been exposed, such as diphtheria, tetanus, measles, or *Candida*, are used to determine the presence of defects in T-cell-mediated immunity (CMI). If patients do not develop induration at the site, indicating a positive response to the antigen, a CMI defect is present. Delayed hypersensitivity is a type IV hypersensitivity reaction mediated by cytokines released by macrophages and helper T cells.

delayed reaction A reaction occurring a considerable time after a stimulus, esp. a reaction such as a skin inflammation occurring hours or days after exposure to the allergen.

delayed transfusion reaction The immune-mediated destruction of donated blood cells, occurring about 3 to 5 days after a transfusion and often resulting from recipient antibodies against minor antigens on donor red cells. Delayed transfusion reactions are relatively uncommon except in patients who have received many previous transfusions and have become alloimmunized (e.g., patients with sickle cell anemia). A sudden drop in hemoglobin and hematocrit levels is a hallmark.

de-lead (dē-lēd) To remove lead from the body or a tissue. SEE: *chelate.*

deleterious (dē'l'ē-tēr-ē-ūs) [Gr. *deleterios*] Harmful.

deletion (dē-lē'shūn) In cytogenetics, the loss of a portion of a chromosome.

Delhi boil (dē'l'ē boyl) Aleppo boil.

delicate Having a fine, fragile structure.

delimitation (dē-līm'ī-tā'shūn) [L. *de*, from, + *limitare*, to limit] Determination of limits of an area or organ in diagnosis.

delinquent (dē-līn'kwēnt) **1.** Someone, esp. a juvenile, whose behavior is criminal or antisocial. **2.** Of a criminal or antisocial nature. **3.** Overdue or late.

deliquescence (dē'lī-kwēs'ēns) The process of becoming liquefied or moist by absorbing of water from the air. Ordinary table salt has this property. **deliquescent**, *adj.*

deliriant, delirifacient (dē-līr'ē-ānt, dē-

lir'ī-fā'shī-ěnt) [L. *delirare*, to leave the furrow, be frenzied] An agent that alters mental status, causing agitated confusion (e.g., atropine or other anticholinergic drugs).

delirium (dē-lir'ē-ūm) [L.] An acute, reversible state of disorientation and confusion. Delirium is marked by disorientation without drowsiness; hallucinations or delusions; difficulty in focusing attention; inability to rest or sleep; and emotional, physical, and autonomic overactivity.

ETIOLOGY: Common causes include drug and alcohol withdrawal; medication side effects; infections (esp. sepsis); pain; surgery or trauma; hypoxia; electrolyte and acid-base imbalances; sensory deprivation and sensory overload; dementia; hospitalization and/or depression, esp. but not exclusively in people 65 years or older.

TREATMENT: Treatment involves determining the cause of the delirium and removing or resolving it if possible.

PATIENT CARE: Preventive measures may sometimes reduce the risk of delirium in hospitalized patients. Such measures include providing glasses and hearing aids to patients with known sensory defects; mobilizing patients or providing ROM activities several times each day; avoiding multiple new medications; maintaining hydration by encouraging oral fluid intake; using holistic measures to promote relaxation; inducing sleep and reducing anxiety; and engaging family members or people familiar to delirious patients in their care.

The health care professional should consider delirium any time an acute change in mental status occurs. Supportive care consists of minimizing unanticipated, frightening, or invasive procedures; integrating orienting statements into normal conversation; and providing confused patients with a calm supportive presence. When patients express deluded thoughts, it is important not to try to convince them that their perceptions are distorted. Speaking in a calm, clear voice, talking directly to the patient and using only simple statements and questions, and maintaining eye contact may be helpful. Maintaining caregiver consistency and encouraging family visiting are especially beneficial. Delirious patients should be roomed close to nursing stations so that they can be frequently observed. Physical protection from self-injury should be provided by bed alarms, wander guards, or mattresses placed on the floor to decrease the likelihood of patients' falling. Delirious patients should be permitted to sleep without interruption. Pain that they experience should be treated with analgesic drugs that do not affect men-

tal status. Large calendars and clocks should be provided to aid orientation. Natural light should be used to delineate day and night. Other useful preventive interventions include limiting interfacility transfers and room changes as much as possible and providing complementary therapies to decrease agitation and aggression (e.g., music therapy, massage, and shared activities). Antipsychotic drugs and benzodiazepines may be used cautiously when other nonpharmacological interventions have failed.

acute d. Delirium developing suddenly.

alcoholic d. Delirium tremens.

d. cordis Atrial fibrillation.

febrile d. Delirium occurring with fever.

d. of negation Delirium in which the patient thinks body parts are missing.

d. of persecution Delirium in which the patient feels persecuted by surrounding people.

partial d. Delirium acting on only a portion of the mental faculties, causing only some of the patient's actions to be unreasonable.

senile d. An intermittent or permanent state of disorientation, hallucination, confusion, and wandering that may come on abruptly in old age or may be associated with senile dementia.

toxic d. Delirium resulting from exposure to or ingestion of a psychically active agent (e.g., jimson weed, LSD, mescaline, or psilocybin).

traumatic d. Delirium following injury or shock.

d. tremens ABBR: DT. The most severe expression of alcohol withdrawal syndrome, marked by visual, auditory, or tactile hallucinations, extreme disorientation, restlessness, and hyperactivity of the autonomic nervous system (evidenced by such findings as pupillary dilation, fever, tachycardia, hypertension, and profuse sweating). About 15% of affected patients may die, usually as a result of comorbid illnesses. In most affected patients, recovery occurs within 3 to 5 days. SYN: *alcoholic delirium*. SEE: *alcoholism*; *alcohol withdrawal syndrome*.

TREATMENT: Sedation with benzodiazepines is the chief therapy. Other supportive care includes airway protection (and intubation, when indicated); fluid and electrolyte resuscitation; hemodynamic support; protection of the patient from injury; and precautions against seizure. Comorbid conditions resulting from chronic alcoholism (e.g., pancreatitis, esophagitis, hepatitis, or malnutrition) may complicate therapy.

PATIENT CARE: The patient and those nearby protected from harm while prescribed treatment is carried out to re-

lieve withdrawal symptoms. The patient's mental status, cardiopulmonary and hepatic functions, and vital signs (including body temperature) are monitored in anticipation of complicating hyperthermia or circulatory collapse. Prescribed drug and fluid therapy, titrated to the patient's symptoms and blood pressure response, are administered. The patient's need for anticonvulsant drugs is evaluated, and such drugs given as prescribed. A calm, evenly illuminated environment is provided to reduce visual hallucinations. The patient is addressed by name; surroundings are validated frequently to orient the patient to reality, and all procedures are explained. The patient is observed closely and left alone as little as possible. Physical restraints should be reserved for patients who are combative or who have attempted to injure themselves. Patience, tact, understanding, and support are imperative throughout the acute withdrawal period. Once the acute withdrawal has subsided, the patient is advised of the need for further treatment and supportive counseling. SEE: *Nursing Diagnoses Appendix*.



It is crucial to distinguish the signs and symptoms of alcoholic delirium from those caused by intracerebral hemorrhage, meningitis, or intoxication with substances other than alcohol. Evaluation of the patient suspected of having the DTs may therefore require neuroimaging, lumbar puncture, or drug screening.

deliver [L. *deliberare*, to free completely]

1. To aid in childbirth. 2. To remove or extract, as a tumor from a cystic enclosure or a cataract.

delivery 1. Giving birth to a child, together with the placenta and membranes, by a parturient woman. SEE: *labor*. 2. The provision and administration of a therapeutic agent to a patient.

abdominal d. Delivery of a child by cesarean section.

breech d. Delivery of the fetus that presents in the breech position (i.e., the buttocks are the first part of the body to be delivered). Also called *breech extraction*. SEE: *breech presentation*.

forceps d. Delivery of a child by application of forceps to the fetal head. Forceps deliveries are called *outlet* when the scalp of the fetus is visible at the vaginal introitus and the fetal skull has descended to the pelvic floor. *Low forceps deliveries* are performed when the fetal skull is at or > station +2 cm and not on the pelvic floor. A *midforceps delivery* occurs when the station is above +2 cm but the head is engaged.

High forceps deliveries, which were performed in the past, are no longer used.

postmortem d. Delivery of the child by either the abdominal or vaginal route after death of the mother.

precipitous d. An unexpected birth caused by swift progression through the second stage of labor with rapid fetal descent and expulsion. SEE: *precipitate labor*.

PATIENT CARE: Although primiparas may experience unduly rapid labor and delivery, the event is more common among multiparas. Signs to be particularly alert for are an accelerating second stage, such as the abrupt onset of strong contractions, an intense urge to bear down, or the patient's conviction that delivery is imminent. To diminish the urge to push, the woman should be encouraged to pant.

Emergency delivery by health care professionals. If time permits, the health care provider opens the emergency delivery pack, scrubs, and gloves, and places a sterile drape under the patient's buttocks. As crowning occurs, the health care provider uses the dominant hand to gently support the oncoming fetal head and the other hand to support the woman's perineum. If the amniotic sac is intact, the membranes are broken. The head should be born between contractions and supported as it emerges. The health care provider immediately feels for a nuchal cord. If the cord loosely encircles the infant's neck, it should be slipped over the infant's head. If it is tightly looped, two clamps are used to occlude the cord and cut it between them. The clamp is left in place. The health care provider unwinds the cord and suction the infant's nose and mouth. He or she places one hand on either side of the infant's head and gently exerts downward traction to deliver the anterior shoulder. Gentle upward traction assists delivery of the posterior shoulder, and the body emerges as the mother gently pushes. Standard birthing protocols are then followed, such as using a bulb syringe to suction the newborn as needed, drying the infant, and placing the newborn on the mother's abdomen (skin to skin) in a head-dependent position to facilitate drainage of mucus and fluid. The patient is assessed for signs of placental separation (small gush of blood, more cord protruding from the vagina, fundal rebound). Traction on the cord to hasten placental separation is contraindicated. The postdelivery status of the mother and newborn is assessed and recorded.

premature d. Preterm d.

preterm d. Childbirth that occurs between the date of fetal viability and the end of the 37th week of gestation. SYN: *premature delivery*. SEE: *preterm labor*.

spontaneous d. Delivery of an infant without external aid.

vaginal d. Expulsion of a child, placenta, and membranes through the birth canal.

dellen (dĕl'ĕn) Thinning in the periphery of the cornea that results from locally inadequate lubrication of the corneal surface.

delomorphous Having a well-defined, unchanging structure or shape.

delousing (dĕ-lows'ing) [L. *de*, from, + AS. *lus*, louse] Ridding the body of lice. SEE: *louse*.

Delphi method (dĕl'fī) [After the oracle of Apollo at *Delphi*] The polling of experts in a field to reach consensus, make decisions, or disseminate knowledge. Individual specialists are organized in a virtual group, i.e., one that does not meet face-to-face in one place. They are each given a standard set of questions to answer or review. Their responses are tallied by the group's organizers, and then the preliminary data analysis is shared with all members of the group for further comments and revisions. A final report summarizing the opinions of the group is drafted. The Delphi method is one means of publishing criteria for standards of care or the state of the art of a particular discipline in health care.

delta 1. Δ or δ, respectively, the uppercase and lowercase symbols for the fourth letter of the Greek alphabet. 2. A triangular space. 3. Change in value or amount of something being measured or monitored.

deltacortisone (dĕl'tă-kor'tī-sōn) Prednisone, a steroid hormone with glucocorticoid activity.

delta hepatitis virus ABBR: HDV. SEE: *hepatitis D*.

delta storage pool deficiency Dense granule deficiency syndrome.

delusion (dĕ-loo'zhūn) [L. *deludere*, to cheat] A false belief brought about without appropriate external stimulation and inconsistent with the individual's own knowledge and experience. It is seen most often in psychoses, in which patients may not be able to distinguish their own unverified thoughts, fears, or feelings from reality. It differs from hallucination in that the latter involves the false excitation of one or more senses. The most serious delusions are those that cause patients to harm others or themselves (e.g., fear of being poisoned may cause the patient to refuse food). Delusions may lead to suicide or self-injury. False beliefs include being persecuted or being guilty of an unpardonable sin.

d. of control A delusion that one's thoughts and actions are under the control of an external force.

depressive d. A delusion causing a saddened state.

expansive d. Delusion of grandeur.

fixed d. A delusion that remains unaltered.

d. of grandeur An unreasonable conviction of one's own power, importance, or wealth, accompanied by a feeling of well-being, seen in manic patients. SYN: *expansive delusion*; *megalomania*.

d. of negation Nihilistic d.

nihilistic d. A delusion that everything has ceased to exist. SYN: *delusion of negation*.

d. of persecution A delusion in which patients believe people or agencies are seeking to injure or harass them.

reference d. A delusion that causes the patient to read an unintended meaning into the acts or words of others. Usually the affected person interprets comments about others as being directed toward himself or herself and as being belittling or disparaging.

systematized d. A logical correlation made by a person, based on a false premise, false reasoning, or an incorrect deduction.

unsystematized d. A delusion with no correlation between ideas and actual conditions.

delusional Pert. to a delusion.

demand 1. A need for something. 2. A legal obligation asserted in courts (e.g., payment of a debt or monetary award for injuries suffered by the plaintiff and caused by the defendant). 3. In health care delivery, the amount of care a population seeks to use. 4. In patient-controlled analgesia, a request for a dose of a pain-relieving medication.

biological oxygen d. The amount of oxygen required for a biological reaction, esp. the oxygen required to oxidize materials in natural water supplies (e.g., rivers or lakes). SEE: *eutrophication*.

specific adaptations to imposed d. ABBR: SAID. A principle in exercise prescription that any tissue will alter its structure to accommodate the stresses placed on it. The intensity and direction of force, type and speed of muscle contraction, frequency and duration of exercise, range of motion, and external environment influence tissue adaptation. In physical therapy, this principle is used to prescribe the best exercises to regain function in work, sports, or other activities.

demand-induced ischemia Insufficient blood flow to meet the needs of the heart produced by tachycardia and relative hypotension rather than by flow-limiting blockages within the coronary arteries. Demand ischemia may occur in atrial fibrillation with a rapid ventricular response; in hypotension or hypovolemia; or in sepsis or the systemic inflammatory response syndrome.

demand valve manually cycled resuscitator A multifunction resuscitator that uses high-flow oxygen. This device often can be triggered by negative pressure caused by an inhaling patient as well as operated by a button while the operator watches the patient's chest rise. During resuscitation, it is necessary to use the positive pressure aspect of this device and manually trigger or compress the button, as the patient is not able to open up the valve by inhaling. These devices should be fitted with an overinflation high-pressure alarm to avoid gastric distention and/or barotrauma.

demarcation (dēm'ār-kā'shūn) [L. *demarcare*, to limit] A limit or boundary.

demasculinization (dēm-mās'kū-līn-ī-zā'shūn) Loss of male sexual characteristics. This may be caused by lack of the male hormone or by the action of certain drugs.

Dematiaceae (dēm'mā-tē-ā'sē-ē) A family of fungi that contain melanin in their cell walls and have a dark color. They occasionally infect humans, esp. those who are immunocompromised. SYN: *dematiaceous fungus*.

dematiaceous (dēm'mā-tē-ā'shūs, dēm") Pert. to fungi having a dark brown or black appearance. The dark pigment is found in the hyphae or the conidia.

demented (dēm-mēnt'ēd) Chronically cognitively impaired. SEE: *dementia*.

dementia (dī-mēn'shā) [L. *dementare*, to make insane] A progressive, irreversible decline in mental function, marked by memory impairment and, often, deficits in reasoning, judgment, abstract thought, registration, comprehension, learning, task execution, and use of language. The cognitive impairments diminish a person's social, occupational, and intellectual abilities. In the U.S., 4.5 million people are afflicted by dementia. The prevalence is esp. high in the very elderly: about 20% to 40% of those over 85 are demented. Dementia is somewhat more common in women than in men. It must be distinguished by careful clinical examination from delirium, psychosis, depression, and the effects of medications. SEE: *Alzheimer's disease*; *Huntington's chorea*; *Parkinson's disease*; table.

SYMPTOMS: The onset of primary dementia may be slow, taking months or years. Memory deficits, impaired ab-

stract thinking, poor judgment, and clouding of consciousness and orientation are not present until the terminal stages; depression, agitation, sleeplessness, and paranoid ideation may be present. Patients become dependent for activities of daily living and typically die from complications of immobility in the terminal stage.

ETIOLOGY: Dementia may result from many illnesses, including AIDS, chronic alcoholism, Alzheimer's disease, vitamin B₁₂ deficiency, carbon monoxide poisoning, cerebral anoxia, hypothyroidism, subdural hematoma, or multiple brain infarcts (vascular dementia).

TREATMENT: Some medications (e.g., donepezil, nemantine, and tacrine) improve cognitive function in some patients.

PATIENT CARE: Demented patients deserve respectful and dignified care at all stages of their disease. Caregivers assist the demented with activities of daily living and with the cognitive and behavioral changes that accompany the disease. A variety of nursing interventions may reduce the risk of inadvertently precipitating behavioral symptoms. Health care professionals should reinforce the patient's abilities and successes rather than disabilities and failures. Caregivers can help the patient make optimal use of his or her abilities by reducing the adverse effects of other health conditions, sensory impairments, and cognitive defects while maximizing social and environmental factors that support functional capacity. Daily routines should be adjusted to focus on the person rather than the task (e.g., the comfort of bathing rather than the perceived need to bathe in a certain way at a certain time).

Interaction and communication strategies should be adjusted to ensure that the message delivered is the one perceived (obtain attention, make eye contact, speak directly to the individual, match nonverbal communication and gestures to the message, slow the pace of speech, use declarative sentences, use nouns instead of pronouns). Commands including the word "don't" and questions beginning with "why" should be avoided. Tasks should be broken down into manageable steps. Reassurance and encouragement are provided to assist the patient to act more independently. Reality grounding is not necessary for such a patient; thus, if the patient asks to see his mother (who is dead), reminding him of her death may reinforce the pain of that loss. It may be better to redirect the conversation, asking the patient to talk about his mother, instead. Written agreements and reminders may not be as useful as they would be in the care of other patients,

Prevalence of Dementia, by Patient Age

Age	Prevalence
<60	0.1%
60-64	~1%
>65	3 — 11%
>85	25 — 47%

for a demented patient may not remember what has been negotiated and agreed upon in the past. The patient's environment should be adjusted to provide needed safety. Finding the correct balance between doing too much or too little may be difficult for the caregiver, who should recognize that the balance may shift day to day and that patience and flexibility are more helpful. Caregivers must be aware that the patient will have moments of lucidity, which should be treasured but not considered evidence that the patient is exaggerating or feigning his or her disease to obtain attention. Family members who provide care must be aware that they, too, have emotional needs and can become angry, frustrated, and impatient and that they need help to learn to forgive themselves as well as the loved one they are caring for. Finally, such caregivers must learn how to accept help and should not fear to admit that they cannot carry the burden of care by themselves.

AIDS-d. complex SEE: *AIDS-dementia complex*.

alcoholic d. A form of toxic dementia in which there is loss of memory and problem-solving ability after many years of alcohol abuse.

apoplectic d. Sudden loss of cognitive or intellectual function as a result of a large or bloody stroke or a brain tumor.

dialysis d. A neurological disturbance in patients who have been on dialysis for several years. There are speech difficulties, myoclonus, dementia, seizures, and, eventually, death. The causative agent is presumed to be aluminum in the dialysate.

epileptic d. An infrequent complication of epilepsy, presumed to result from injury to neurons during uncontrolled seizures.

frontotemporal d. A general term for any of four types of dementia: 1. frontotemporal lobar degeneration; 2. Pick's disease; 3. primary progressive aphasia; or 4. semantic dementia. Symptoms include compulsive or repetitive behavior, lack of social inhibition, and deterioration in language use.

Heller d. Regressive autism.

multi-infarct d. Dementia resulting from multiple small strokes. After Alzheimer's disease, it is the most common form of dementia in the U.S. It has a distinctive natural history. Unlike Alzheimer's disease, which develops insidiously, the cognitive deficits of multi-infarct dementia appear suddenly, in "step-wise" fashion. The disease is rare before middle age and is most common in patients with hypertension, diabetes mellitus, or other risk factors for generalized atherosclerosis. Brain imaging

in patients with this form of dementia shows multiple lacunar infarctions. SYN: *vascular dementia*.

d. paralytica Tertiary syphilis.

postfebrile d. Dementia following a severe febrile illness.

presenile d. Dementia beginning in middle age, usually resulting from cerebral arteriosclerosis or Alzheimer's disease. The symptoms are apathy, loss of memory, and disturbances of speech and gait. SEE: *Nursing Diagnoses Appendix*.

primary d. Dementia associated with Alzheimer's disease.

d. pugilistica Traumatic dementia (i.e., encephalopathy or an organic brain syndrome caused by closed head injury). It is sometimes referred to colloquially as "boxer's brain."

semantic d. A group of brain disorders marked by nearly complete losses in the understanding of word meanings, spelling, and the identification or recognition of facts, faces, or objects. The disease is marked pathologically by local atrophy in the neocortex of the temporal lobe of the brain.

senile d. of the Alzheimer's type ABBR: SDAT. Alzheimer's disease.

syphilitic d. Dementia caused by tertiary syphilis.

toxic d. Dementia caused by exposure to neurotoxins such as lead, mercury, arsenic, alcohol, or cocaine.

vascular d. Multi-infarct dementia.

demi- [L. *dimidius*, half] Prefix indicating half.

demilune (dēm'ī-loon) [L. *dimidius*, half, + *luna*, moon] A crescent-shaped group of serous cells that form a caplike structure over a mucous alveolus. They are present in mixed glands, esp. the submandibular gland.

demineralization (dē-mīn'ēr-āl-ī-zā'shŭn) [L. *de*, from, + *minare*, to mine] Loss of mineral salts, esp. from the teeth or bones. It occurs commonly in dental caries; next to joints in people with arthritis; in bones that have been immobilized; in underutilized bones after stroke; and in osteoporosis. SEE: *decalcification*.

demise (dēm-mīz') [L. *dimittere*, to dismiss] Death.

demodectic (dēm-ō-dēk'tik) Concerning or caused by the mite *Demodex*.

Demodex (dēm'ō-dēks) [Gr. *demōs*, fat, + *dex*, worm] A genus of mites of the class Arachnida and order Acarina.

D. folliculorum The hair follicle or face mite; an almost microscopic elongated wormlike organism that infests hair follicles and sebaceous glands of various mammals, including humans.

demography (dēm-mōg'rā-fē) [Gr. *demōs*, people, + *graphein*, to write] The study of measurable characteristics of human populations. The characteristics may include population size, growth,

density, age, race, sex, or marital status. The information may be used to forecast health needs and the use of health services.

demoniac (dě-mŏ'ně-ak") 1. Concerning or resembling a demon. 2. Frenzied, as if possessed by demons or evil spirits.

demorphinization (dě-mor"fin-ī-zā'shūn) Gradual decrease in the dose of morphine being used by one addicted to that drug.

demotivate (dě-mŏ'tī-vāt) To cause loss of incentive or motivation.

Demours' membrane (dě-mūr') [Pierre Demours, Fr. ophthalmologist, 1702–1795] A fine membrane between the endothelial layer of the cornea and the substantia propria. SYN: *Descemet's membrane*.

demulcent (dě-mŭl'sĕnt) [L. *demulcens*, stroking softly] An oily or mucilaginous agent used to soothe or soften an irritated surface, esp. mucous membranes. SEE: *emollient*.

de Musset's sign (dě moo-sāz') SEE: *Musset's sign*.

demyelinate (dě-mī'ĕ-lī-nāt) [ʹ + Gr. *myelos*, marrow] To remove the myelin sheath of nerve tissue.

demyelination Destruction or removal of the myelin sheath of nerve tissue, seen in Guillain-Barré syndrome, multiple sclerosis, and many other neurological diseases.

denaturation (dě-nā'chŭr-ā'shūn) 1. Addition of a substance to alcohol that makes it toxic and unfit for human consumption but usually does not interfere with its use for other purposes. 2. A change in conditions (temperature, addition of a substance) that causes an irreversible change in a protein's structure, usually resulting in precipitation of the protein.

denatured (dě-nā'chŭrd) [ʹ + *natura*, nature] 1. A change in the usual character of a substance, as when the addition of methanol to alcohol renders it unfit for consumption. 2. Structurally altered.

dendr-, dendro- Combining forms meaning *tree*.

dendric (děn'drĭk) Pert. to or possessing a dendrite.

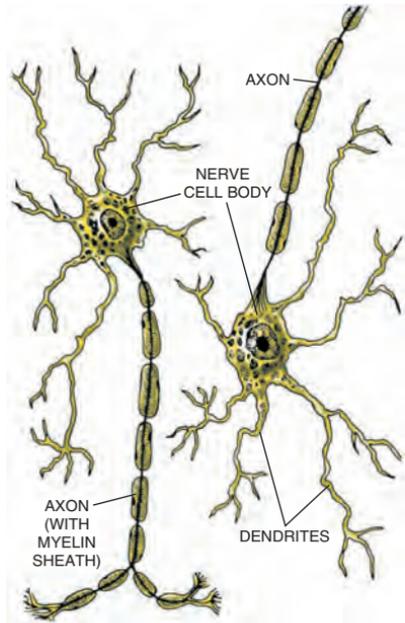
dendriform (děn'drĭ-form) [ʹ + L. *forma*, shape] Branching or treelike.

dendrite (děn'drīt) [Gr. *dendrites*, pert. to a tree] A short spike-shaped cell process. The term usually refers to the branched, tapering cell processes of neurons. Incoming synapses form on the neuronal dendrites, which often arborize, sometimes extensively. SYN: *dendron*. SEE: *illus*.

dendritic (děn-drīt'ĭk), *adj.*

dendritic calculus A renal stone molded in the form of the pelvis and calyces.

dendroid (děn'drŏyd) [ʹ + *eidōs*, form,



DENDRITES

shape] 1. Dendriform; dendritic; pert. to dendrites. 2. Arborescent; treelike.

dendron (děn'drŏn) [Gr., tree] Dendrite.

dendrophagocytosis (děn'drŏ-fāg-ŏ-sī-tŏ'sis) [Gr. *dendron*, tree, + *phagein*, to eat, + *kytos*, cell, + *osis*, condition] Absorption of portions of astrocytes by microglia cells.

denervation (dě-nĕrv-ā'shūn) [L. *de*, from, + Gr. *neuron*, nerve] 1. Excision, incision, or blocking of a nerve supply. 2. A condition in which the afferent and efferent nerves are cut. SEE: *deafferentation*.

dengue (dāng'gā, -gĕ) [Sp.] An acute febrile illness, often presenting with severe musculoskeletal pain, caused by one of four serotypes of flavivirus. The disease is transmitted to humans by the bite of the *Aedes aegypti* mosquito. It is endemic in tropical regions of the world and a major health problem in Southeast Asia, Mexico, and Central America, where it causes periodic epidemic disease. Worldwide, tens of millions of people have been infected. Sporadic outbreaks occur in the warmer regions in the U.S. (e.g., Texas and Hawaii). SYN: *breakbone fever*; *dengue fever*.

SYMPTOMS: The incubation period of 5 to 7 days precedes sudden onset of fever, myalgia, arthralgias, headache, and abdominal pain; a rash may develop 3 days later. Most patients recover without a problem. About 5% of patients develop bleeding into the brain and lungs,

with severe neutropenia and thrombocytopenia (dengue hemorrhagic fever). This illness often affects children and is frequently fatal.

denial (dě-nī'āl) **1.** Refusal to admit the reality or to acknowledge the presence or existence of something; keeping of anxiety-producing realities from conscious awareness. This is a defense mechanism. **2.** In medical care reimbursement, the decision by the patient's insurer that part or all of the medical care administered was not justified. The result of the denial is that the insurer refuses to pay for all or a portion of the medical costs incurred.

ineffective d. The state of a conscious or unconscious attempt to disavow the knowledge or meaning of an event to reduce anxiety/fear to the detriment of health. SEE: *Nursing Diagnoses Appendix*.

denial and isolation According to Elisabeth Kübler-Ross, the initial emotional reactions to being told of impending death. Individuals refuse to accept the diagnosis and seek additional professional opinions in the hope that the predicted outcome is erroneous. When these efforts are in vain, the patient feels isolated and abandoned. SEE: *acceptance*.

denitrify (dě-nī'trī-fi) To remove nitrogen from something.

denitrogenation (dě-nī'trō-jèn-ā'shūn) In aerospace medicine, the removal of nitrogen from the body of a person preparing to fly in an environment in which the barometric pressure will be much lower than at sea level. Prior to the flight, the person breathes 100% oxygen for a variable length of time, depending on the anticipated degree of reduced barometric pressure. SYN: *preoxygenation*. SEE: *decompression illness*.

dens (děnz) *pl. dentes* [L.] **1.** A tooth. SEE: *dentition* for *illus*. **2.** The odontoid process of the axis, which serves as a pivot for the rotation of the atlas.

d. bicuspidus Dens premolaris.

d. caninus A canine tooth.

d. deciduus A primary tooth.

d. incisivus An incisor tooth.

d. in dente A dental anomaly in which the radiograph of a tooth shows the outline of a second dental structure inside it. Outwardly, on inspection, the visible tooth is normal. SYN: *dens invaginatus*.

d. invaginatus Dens in dente.

d. molaris A molar tooth, or grinder.

d. permanens One of the 32 permanent teeth. SYN: *permanent dentition*.

d. premolaris A premolar tooth. SYN: *dens bicuspidus*.

d. serotinus A wisdom tooth (third molar).

dense granule deficiency syndrome (děns) [L. *densus*, thick] A disorder of

blood clotting caused by an absence of dense granules in platelets. These granules normally help activate platelets when a blood vessel is cut or injured and help damaged blood vessels to constrict. Their deficiency produces abnormal platelet aggregation. Characteristic laboratory findings may include a prolonged bleeding time. SYN: *delta storage pool deficiency*.

densimetric analysis (děn'sī-mě'trīk) Analysis by determination of the specific gravity (density) of a solution and estimation of the amount of solids.

densitometer (děn'sī-tōm'ě-tēr) **1.** An instrument that measures bacterial growth and the effect on it of antiseptics and bacteriophages. **2.** In radiology, an instrument that measures the optical density of a radiograph. SEE: *illus*.



DENSITOMETER

densitometry (děn'sī-tōm'ě-trē) **1.** The determination of the density of a substance (e.g., bone). **2.** The determination of the amount of ionizing radiation to which a person has been exposed.

bone d. SEE: under *bone densitometry*.

density [L. *densitas*, thickness] **1.** The relative weight of a substance compared with a reference standard. SEE: *specific gravity*. **2.** The quality of being dense. **3.** The degree of blackness demonstrated in a developed radiographic image.

bone mass d. ABBR: BMD. Bone mineral d.

bone mineral d. ABBR: BMD. SEE: *bone mineral density*.

caloric d. Calories per gram of food. The number of calories in a given mass of food influences hunger and feeding behaviors in animals and humans. When a limited amount of food is available, foods of higher caloric density are more likely to satisfy hunger than

equivalent amounts of food with fewer calories. Calorically dense foods that provide little in the way of micronutrients are often termed empty calories. SEE: *satiety*. SYN: *energy density*.

energy d. Caloric d.

microvessel d. The concentration of small blood vessels in a malignant tumor. It reflects the amount of angiogenesis within the tumor and has been correlated with the ability of tumors to grow and metastasize.

nutrient d. The ratio of the nutrients present in a food relative to its caloric value.

optical d. The ability of a laboratory specimen to absorb or block the passage of light. The optical density of a laboratory sample can be used as an indicator of the concentration of specific components in the sample.

dent- SEE: *dento-*.

dental Pert. to the teeth.

dental apparatus The tooth and its supporting tissues.

dental care plan SEE: under *plan*.

dental chart A diagram of the teeth on which clinical and radiographic findings can be recorded. It includes existing restorations, decayed surfaces, missing teeth, periodontal pocket depth, and the conditions of all soft tissues.

dental consonant A consonant pronounced with the tongue at or near the front upper teeth.

dental emergency An acute condition affecting the teeth, such as inflammation of the soft tissues surrounding teeth or post-treatment complications of dental surgery. It is best treated by a dentist. Nevertheless, the primary care physician and other health care professionals must be familiar with these emergency conditions and their management. SEE: table.

dental engineering A field of study that includes the manufacture, testing, and use of dental materials, such as cements, metallic alloys, and dental devices.

dental geriatrics The scientific study and treatment of dental conditions of the elderly, including the detection and prevention of caries and the management of periodontal disease and dentures. SYN: *geriatric dentistry*.

dentalgia (dĕn-tāl'jĕ-ă) [L. *dens*, tooth, + Gr. *algos*, pain] Toothache.

dental handpiece An instrument designed to hold the burs used in dentistry to remove tooth structure or to smooth and polish restorative materials. Handpiece rotations are measured in rotations per second. Handpieces may be powered by electric motor or air turbines and are characterized as high speed or low speed depending on their rotational speed.

dental laboratory technician Dental technician.

dental material Any of several types of colloids, plastics, resins, and metal alloys used in dentistry to take impressions, restore teeth, or duplicate dentition.

dental tape Waxed or unwaxed thin tape used for cleaning and removing plaque from between the teeth.

dental technician A technician who constructs or manufactures fixed restorations (bridgework), crowns, and other dental restorations as authorized by dentists. SYN: *dental laboratory technician*.

dental treatment Any of a variety of treatments of the teeth and adjacent tissues to restore or maintain normal oral health and function.

dental trephination Surgical creation of a drainage tract with a bur or sharp instrument in the soft tissue or bone overlying a tooth root apex. This is usually done to permit drainage of an apical abscess. SYN: *apicostomy*.

dental unit 1. A masticatory unit consisting of a single tooth and its adjacent tissues. **2.** A mobile or fixed piece of equipment, usually complete with chair, light, engine, and other accessories or utilities necessary for dental examinations or operations.

dental vacuum An apparatus for removing saliva from the mouth during operation on teeth or jaws.

dentate (dĕn'tāt) [L. *dentatus*, toothed] Notched; having short triangular divisions at the margin; toothed.

denes (dĕn'tēz) *sing.*, **dens** [L.] Teeth.

dent- SEE: *dento-*.

dentia (dĕn'shĕ-ă) [L.] Eruption of teeth.

d. praecox Premature eruption of teeth.

d. tarda Delayed eruption of teeth.

denticle (dĕn'ti-kl) [L. *denticulus*, little tooth] **1.** A small toothlike projection. **2.** A calcified structure within the pulp of the tooth. SYN: *pulp stone*.

denticulate (dĕn-tik'ū-lăt) [L. *denticulatus*, small-toothed] Finely toothed or serrated.

denticulate body The corpus dentatum of the cerebellum.

dentification (dĕnt'ĭ-fi-kă'shŭn) [L. *dens*, tooth, + *facere*, to make] Conversion into dental structure.

dentiform (dĕnt'ĭ-form) [ʹ + *forma*, shape] Toothlike.

dentifrice (dĕn'ti-frĭs) [ʹ + *fricare*, to rub] A paste, liquid, gel, or powder for cleaning teeth. A dentifrice may be cosmetic or therapeutic. Cosmetic dentifrices must clean and polish; therapeutic dentifrices must reduce some disease process in the oral cavity. Each dentifrice generally contains an abrasive, water, humectants, a foaming agent, a

Signs and Symptoms and Recommended Emergency Management of Odontogenic (Dental) Problems

Condition	Signs and Symptoms	Management
Periodontal disease		
Periodontal abscess	Localized pain; swelling of gingivae; possible sinus tract; lack of response to percussion; periodontal pocketing	Curettage to establish drainage; antibiotics; warm saline rinses; soft diet; referral to dentist
Pericoronitis	Pain and generalized soreness; inflamed operculum over partially erupted tooth	Irrigation; warm saline rinses; gentle massage with toothbrush; antibiotics for fever and lymphadenopathy; referral to dentist for possible tissue excision or tooth removal
Necrotizing ulcerative gingivitis	Generalized pain; bleeding gums; fetid odor; generalized gingival inflammation; necrotic tissue; loss of interdental papillae; fever	Brushing, flossing, general débridement; daily saline rinses; hydration; referral to dentist; antibiotics if necessary; dietary recommendations; rinse twice daily with 1.2% chlorhexidine rinse
Primary herpetic gingivostomatitis (highly infectious)	Gingival ulceration; fever; punctate lesions of gingivae and possibly dorsum of tongue; buccal mucosa, floor of mouth, lips; malaise; headache; irritability; lymphadenopathy	Rest; diluted mouthwashes; increased fluid intake; soft diet; topical analgesics; referral to dentist
Pulpitis and periapical problems		
Reversible pulpitis	Sharp, transient pain response to cold stimuli; recent dental restoration	Analgesics; avoidance of thermal stimuli; referral to dentist
Irreversible pulpitis	Spontaneous pain; persistent pain response to thermal stimuli	Referral to dentist for removal of pulp or extraction of tooth
Periapical inflammation	Acute pain on percussion	Examination for lymph node involvement, intraoral and extraoral; swelling; fever Analgesics Referral to dentist
Periapical abscess	Tooth sensitive to touch; tooth mobile; fever; swelling	Thorough systemic examination; incision and drainage; antibiotics; analgesics; warm water rinses; referral to dentist
Post-treatment complications		
Alveolar osteitis (dry socket)	Throbbing pain 2–4 days after extraction	Irrigation of extraction site; sedative dressing (eugenol); analgesics; gauze packs, bone wax, or gelatin sponge to control hemorrhage; referral to dentist
Tooth sensitivity	Imbalance when teeth contact Thermal sensitivity Pain on closing mouth	Referral to dentist

SOURCE: Adapted from Comer, RW, et al: Dental emergencies. Postgrad Med 85(3):63, Feb. 1989.

binder, a flavoring agent, a sweetener, a therapeutic agent, a coloring material, and a preservative.

dentigerous (dĕn-tij'ĕr-ŭs) [ʹ + *gerere*, to bear] Having or containing teeth.

dentilingual (dĕn-ti-lin'gŭal) [ʹ + *lingua*, tongue] Pert. to both the teeth and the tongue.

dentin (dĕn'tin) [L. *dens*, tooth] The calcified part of the tooth surrounding the pulp chamber, covered by enamel in the crown and cementum in the root area. Dentin is called primary, secondary, or reparative according to its location inside the tooth and its relative sensitivity.

interglobular d. Dentin that contains spaces or hypomineralized areas between mineralized globules or calcospherites.

dental (dĕnt'in-äl) Pert. to dentin.

dentinoclast (dĕn'tin-ŏ-cläst) [ʹ + Gr. *clastos*, broken] A multinucleate cell indistinguishable from an osteoclast. It is involved with resorption of dentin. The same cells probably resorbed cementum before contacting dentin and would be better called odontoclasts. SEE: *osteoclast*.

dentinogenesis (dĕn'tin-ŏ-jĕn'ĕ-sis) [ʹ + *genesis*, generation, birth] Formation of dentin in the development of a tooth.

d. imperfecta Hereditary aplasia or hypoplasia of the enamel and dentin of a tooth, resulting in misshapen blue or brown teeth.

dentinoid (dĕnt'inoyd) [ʹ + Gr. *eidōs*, form, shape] **1.** Resembling dentin. **2.** The noncalcified matrix of dentin, similar to the noncalcified matrix of bone, which is called osteoid. SYN: *pre-dentin*.

dentinoma (dĕn'ti-nŏ-mä) [ʹ + Gr. *oma*, tumor] A tumor composed of tissues from which the teeth originate, consisting mainly of dentin.

dentinosteoid (dĕn'tin-ŏs'tĕ-oyd) [ʹ + Gr. *osteon*, bone, + *eidōs*, form, shape] A tumor composed of dentin and bone.

dentist [L. *dens*, tooth] ABBR: D.D.S., D.M.D. One who has been professionally trained and licensed to practice dentistry.

dentistry **1.** The branch of medicine dealing with the care of the teeth and associated structures of the oral cavity. It is concerned with the prevention, diagnosis, and treatment of diseases of the teeth and gums. **2.** The art or profession of a dentist.

esthetic d. Any of those dental treatments that improve the location, visual appearance, and function of the teeth and jaws.

forensic d. The area of dentistry particularly related to jurisprudence; usually, the identification of unknown per-

sons by the details of their dentition and tooth restorations.

Whereas forensic medicine often is used to establish the time and cause of death, forensic dentistry may be used to establish identity on the basis of dental records only.

four-handed d. Extensive use of a chairside dental assistant to facilitate and enhance the productivity of the dentist.

geriatric d. Dental geriatrics.

hospital d. The practice of dentistry in a hospital where the dentist is an integral part of the comprehensive health care team.

operative d. The restoration of dental structure with amalgam, gold, or other suitable materials.

preventive d. That phase of dentistry concerned with the maintenance of the normal masticatory apparatus by teaching good oral hygiene and dietary practice, and preserving dental health by early restorative procedures. SEE: *table*.

prosthodontic d. The replacement of defective or missing teeth with artificial appliances such as bridges, crowns, and dentures.

public health d. The area of dentistry that seeks to improve the dental health of communities by epidemiological studies, research in preventive methods, and better distribution, management, and use of dental skills.

dentition (dĕn-tish'un) [L. *dentitio*] The type, number, and arrangement of teeth in the dental arch. SEE: *illus.*; *teeth* for *illus.*

diphodont d. Two sets of teeth (i.e., primary and permanent, as in many mammals and humans).

heterodont d. A set of teeth of various shapes that may serve different functions (e.g., incisors, canines, and molars).

impaired d. Disruption in tooth development/eruption patterns or structural integrity of individual teeth. SEE: *Nursing Diagnoses Appendix*.

mixed d. A set of both primary and permanent teeth, as in children between 6 and 13 years of age.

monophodont d. A single set of teeth.

permanent d. The 32 permanent teeth, which begin to erupt at about 6 years of age in people. These are completed by the 16th year with the exception of third molars, which appear between the 18th and 25th years. The incisors are followed by the bicuspids (premolars) and the canines; then the second molars are followed by the third molars. In some individuals the third molars, although present beneath the gingiva, do not erupt. The appearance of the first molars is highly variable, but

Preventing Oral Diseases/Maintaining Oral Health

Disease	Prevention	Details	Special Considerations
Tooth decay	<ul style="list-style-type: none"> ● Brush teeth regularly ● Floss regularly ● Avoid eating simple sugars ● Use fluoride toothpastes 	<ul style="list-style-type: none"> ● Use a soft or <i>very</i> soft brush ● Brush gently twice a day ● Hold the brush at a 45-degree angle to the gum line ● Brush for 2 min at a time ● Use dentifrice with fluoride ● Get annual or biannual check-ups with a dental professional 	<ul style="list-style-type: none"> ● Diabetes mellitus: brush teeth after each meal and snack; maintain blood glucose levels at less than or equal to 125 mg/dl ● Cancer patients: brush after each meal and snack; keep mouth moist with frequent fluid intake ● Children: have dentist apply dental sealants regularly; begin using small amount of fluoride-containing dentifrice by 13th month
Periodontal disease	<ul style="list-style-type: none"> ● Floss regularly ● Brush teeth regularly ● Avoid eating simple sugars ● Consider antimicrobial rinses 	<ul style="list-style-type: none"> ● Daily or twice a day ● Get annual or biannual check-ups with scaling or root planing as indicated 	People with established periodontitis may require: <ul style="list-style-type: none"> ● periodontal rinses ● scaling and planing ● antibiotics ● periodontal surgery
Oral cancer (e.g., squamous cell carcinoma)	Avoid cancer-causing agents	Get regular professional check-ups	<ul style="list-style-type: none"> ● Avoid cigarettes, pipes, and cigars ● Avoid smokeless ("spit") tobacco ● Limit alcohol intake

in some instances they may be the first permanent teeth to appear. SYN: *dens permanens*. SEE: *teeth*.

polyphyodont d. Several successive sets of teeth developing during a lifetime.

primary d. The 20 primary or deciduous teeth in children. In general, the order of eruption is two lower central incisors, 6 to 8 months; two upper central incisors, 5 to 7 months; two lower lateral incisors, 8 to 11 months; two upper lateral incisors, 7 to 10 months; four canines (cuspids), lower and upper, 16 to 20 months; four first molars, lower and upper, 10 to 16 months; four second molars, upper and lower, 20 to 30 months.

dento-, denti-, dent- Combining forms concerning teeth.

dentoalveolar (dĕn'tō-ăl-vĕ-ō-lār) [L. *dens*, tooth, + *alveolus*, small hollow] Pert. to the alveolus of a tooth and the tooth itself.

dentoalveolitis (dĕn'to-ăl'vĕ-ō-lī'tis) ["+ " + Gr. *itis*, inflammation] An older term for periodontitis.

dentofacial (dĕn'tō-fā'shāl) Concerning the teeth and face.

dentoid (dĕn'toyd) ["+ Gr. *eidōs*, form, shape] Dentiform; odontoid; tooth-shaped.

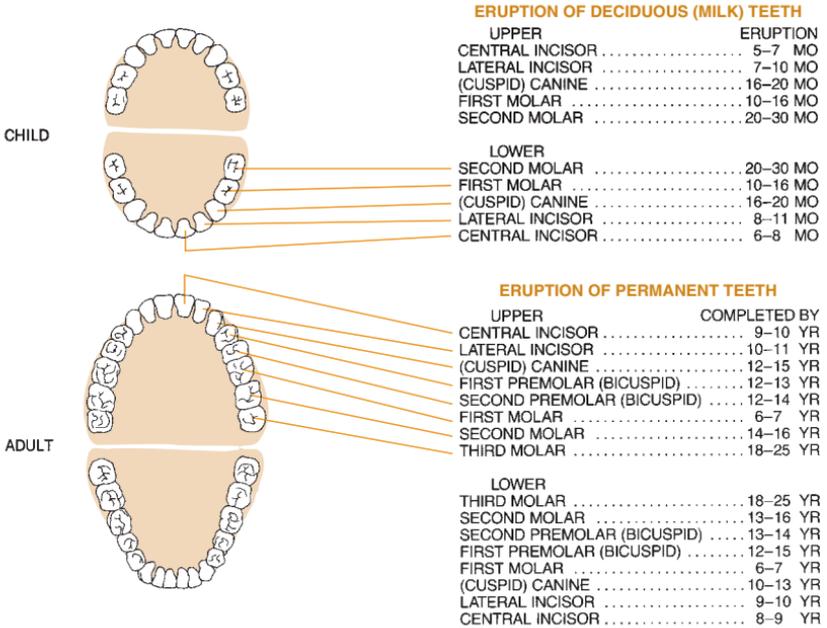
dentolabial (dĕn-tā-lā'bĕ-ăl) ["+ *labium*, lip] Pert. to both the teeth and the lips.

dentolegal (dĕnt'ō-lĕ-gāl) Concerning dentistry and legal matters.

dentulous (dĕn'tū-lūs) Having one's natural teeth. SEE: *edentulous*.

denture (dĕn'chūr) A partial or complete set of artificial teeth set in appropriate plastic materials to substitute for the natural dentition and related tissues. SYN: *dental prosthesis*.

PATIENT CARE: Proper denture care involves cleansing the dentures after each meal by gently brushing them with warm water and by scrubbing them with only moderate pressure. Cleansing solutions and mixtures accepted by the American Dental Association are ammonia water 28% (2 ml in 30 ml water); trisodium phosphate (0.6 g in 30 ml wa-



DENTITION

ter); sodium hypochlorite, or bleach (2 ml in 120 ml water). Dentures should be properly fitted in the patient's mouth; when stored outside the mouth, they should be placed in a well-identified, opaque, closed container. Dentures are stored wet or dry according to their particular composition and according to instructions by the dentist. Dentures are removed from comatose or moribund patients as well as from patients undergoing surgery.

fixed partial d. A dental restoration of one or more missing teeth. It may be attached to a fixed, implanted structure within the mandible or maxilla.

full d. A dental appliance that replaces all of the teeth in one arch.

immediate d. A complete set of artificial teeth inserted immediately after removal (extraction) of natural teeth. Over time this denture must be remade or relined because the soft tissues and the bone from which the extraction has been taken shrink and resorb.

partial d. A dental appliance made of an acrylic base, porcelain teeth, and a stainless steel substructure. A partial denture replaces multiple teeth within a dental arch.

denture cushion A device or pad that is applied to the inner surface of a denture, used to improve the patient's comfort with the denture and provide a secure fit for it.

denture reliner A paste or resin that can

be applied to the base of a denture to repair or coat its surface.

denture repair kit An adhesive or resin used for temporary restoration of the integrity of a cracked or fissured denture.

denturist (dĕn'chŭr-ist) A person licensed in some states to fabricate and fit dentures. This person is not a dentist or a dental technician.

denucleated (dĕ-nŭ'klĕ-āt'ĕd) [L. *de*, from, + *nucleus*, kernel] Deprived of a nucleus.

denuddation (dĕ'nŭ-dā'shŭn) [L. *denuddare*, to lay bare] Removal of a protecting layer or covering through surgery, pathological change, or trauma.

Denver classification A system for classifying chromosomes based on the size and position of the centromere. SEE: *chromosome*.

Denver Developmental Screening Test ABBR: DDST. A widely used screening test to detect problems in the development of children from birth to 6 years of age.

Denver shunt Pleuroperitoneal shunt.

Denys-Drash syndrome (dĕn'is-drāsh') A rare congenital syndrome caused by a mutation in the Wilms' tumor gene that includes male pseudohermaphroditism, progressive renal failure, and an increased risk for genitourinary tumors.

deodorant (dĕ-ō'dor-ānt) [ʹ + *odorare*, to perfume] An agent that masks or absorbs foul odors.

deodorize (dē-ō'dor-īz) [*l'* + *odor*, odor] To remove odor.

deodorizer (dē-ō'dor-īz-ēr) Something that deodorizes.

deontology (dē'ōn-tōl'ō-jē) [Gr. *deonta*, needful, + *logos*, word, reason] System of ethical decision making that is based on moral rules and unchanging principles. SEE: *ethics*.

deorsumduction (dē-or'sūm-dūk'shūn) [L. *deorsum*, downward, + *ducere*, to lead] A downward turn.

deorsumversion (dē-or'sūm-vēr'zhūn) [*l'* + *vertere*, to turn] A downward turning or movement of the eyes.

deossification (dē-ōs'ī-ft-kā'shūn) [L. *de*, from, + *os*, bone, + *facere*, to make] Loss or removal of mineral matter from bone or osseous tissue.

deoxidation (dē-ōk'sī-dā'shūn) The process of depriving a chemical compound of oxygen.

deoxidizer (dē-ōk'sī-dī-zēr) An agent that removes oxygen.

deoxycholic acid (dē-ōk'sē-kō'lik) C₂₄H₄₀O₄. A crystalline acid found in bile.

deoxycorticosterone (dē-ōk'sē-kor'tē-kōs'tēr-ōn) A hormone from the adrenal gland. It acts principally on salt and water metabolism.

deoxygenation (dē-ōk'sī-jēn-ā'shūn) Removal of oxygen from a chemical compound or tissue.

deoxyhemoglobin (dē-ōk'sē'hē'mō-glō'bīn) Chemically reduced (deoxygenated) hemoglobin.

deoxypyridinoline (dē-ōk'sē-pī-rī-dīn'ō-lēn, -līn) ABBR: Dpd. A component of the structural matrix of bone, principally found in type I collagen as a structural cross link. It provides tensile strength to bone.

When bone resorption exceeds bone rebuilding (for example, in osteoporosis), Dpd is released into the circulation and excreted unchanged in the urine. The detection of elevated levels of Dpd in a concentrated urine specimen is used as a marker of ongoing bone loss in osteoporosis. Reduced levels of Dpd are an indicator of the effectiveness of therapies that reduce bone resorption (e.g., bisphosphonates).

The Dpd urine test is performed by obtaining the first urine voided by a patient on awakening—this ensures that the specimen will be maximally concentrated. The level of Dpd obtained is expressed in nmol of Dpd/mmol of urinary creatinine.

deoxyribonuclease (dē-ōk'sē-rī'bō-nū'klē-ās) ABBR: DNase. An enzyme that hydrolyzes and thus depolymerizes deoxyribonucleic acid (DNA).

deoxyribonucleoprotein (dē-ōk'sē-rī'bō-nū'klē-ō-prō'tē-īn) One of a class of conjugated proteins that contain deoxyribonucleic acid.

deoxyribonucleoside (dē-ōk'sē-rī'bō-nū'klē-ō-sīd) One of a class of nucleotides in which the pentose is 2-deoxyribose.

deoxyribose (dē-ōk'sē-rī'bōs) A pentose sugar that is part of DNA.

deoxyribozyme (dē-ōk'sē-rī'bō-zīm) A DNA molecule capable of cleaving itself (i.e., of cutting itself into smaller pieces).

deoxyuridine suppression test (dē-ōk'sē-ūr'ī-dēn', -dīn) A test primarily used in research laboratories to detect early or mild cases of vitamin B₁₂ deficiency.

Department of Health and Human Services ABBR: DHHS. The U.S. government agency that administers federal health programs, including the Food and Drug Administration and the Centers for Disease Control and Prevention. Its previous name was Department of Health, Education and Welfare.

dependence (dē-pēn'dēns) [L. *dependere*, to hang down] **1.** A form of behavior that suggests inability to make decisions. **2.** A psychic craving for a drug that may or may not be accompanied by physiological dependency. **3.** A state of reliance on another. SEE: *habituation*; *withdrawal*.

dependent adult Any individual between the ages of 18 and 65 whose functional limitations prevent him or her from maintaining legal rights or living alone without support from others.

dependent care The support and nurturing of persons who cannot meet their own needs, such as children or functionally impaired adults.

depersonalization disorder The belief that one's own reality is temporarily lost or altered. Affected patients experience estrangement or a sense of unreality and may feel that their body parts have changed size or been otherwise altered. A feeling of being automated or as if in a dream may be present. The disorder is usually rapid in onset and usually occurs in adolescence or under extreme stress, fatigue, or anxiety.

depersonalize (dē-pēr'sōn-āl-īz') To make impersonal; to deprive of personality or individuality.

dephosphorylation (dē-fōs'for-ī-lā'shūn) [L. *de*, from, + *phosphorylation*] Removal of a phosphate group from a compound.

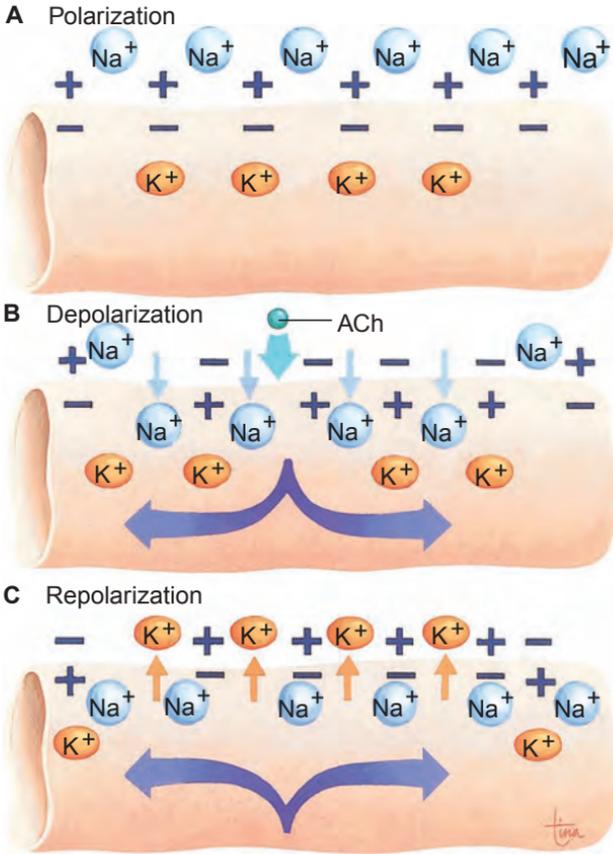
depigmentation (dē'pīg-mēn-tā'shūn) **1.** The pathological loss of normal pigment, as in vitiligo. **2.** Removal of pigment, esp. from the skin, by chemical or physical means.

depilate (dēp'īl-āt) [L. *depilare*, to deprive of hair] To remove hair.

depilation (dēp'īl-ā'shūn) Hair removal. SEE: *epilation*.

depilatory (dē-pīl'ā-tōr'ē) An agent used to remove hair.

depilatory technique One of several



DEPOLARIZATION

Electrical charges and ion concentrations at the cell membrane. (A) polarization; (B) depolarization in response to acetylcholine; (C) repolarization

temporary procedures to remove hair from the body, including shaving the area, plucking a few unwanted hairs, chemical means, or wax treatment. If chemical depilation is used, care must be taken to avoid skin irritation. The wax treatment involves application of molten wax, which is allowed to cool; then, when the wax is pulled away, the hair comes with it. Permanent depilation is accomplished by electrolysis of each hair follicle. This time-consuming process is done by an electrologist trained in the technique. SEE: *electrolysis*; *hirsutism*.

deplete (dē-plēt') [L. *depletus*, emptied] To empty; to produce depletion.

depletion (dē-plē'shūn) Removal of substances such as blood, fluids, iron, fat, or protein from the body.

deploy (dī-ploy) [Fr. *deployer*, to scatter] 1. To put into therapeutic use. 2. To insert (e.g., prostheses, stents).

Deployable Rapid Assembly Shelter

ABBR: DRASH. Military jargon for a tent, e.g., one that can be used near a battlefield as a mobile medical or surgical center.

depolarization (dē-pō'lār-ī-zā'shūn) [+ *polus*, pole] A reversal of charges at a cell membrane; an electrical change in an excitable cell in which the inside of the cell becomes positive (less negative) in relation to the outside. This is the opposite of polarization and is caused by a rapid inflow of sodium ions. SEE: *illus.*

depolymerization (dē-pōl'ī-mēr-ī-zā'shūn) The breakdown or splitting of polymers into their basic building blocks or monomers. The glucose monomer may be polymerized to form the large glycogen polymer and then broken down (i.e., depolymerized) to form glucose.

deponent (dē-pō'nēt) One who testifies under oath about the facts at issue in

litigation; the testimony is transcribed to become part of the legal record.

deposit (dē-pōz'it) [L. *depositus*, having put aside] **1.** Sediment. **2.** Matter collected in any part of an organism.

calcareous d. A deposit of calcified material, as in calculus on teeth.

deposition (dēp'ā-zīsh'in) **1.** Pretrial discovery tool or technique in which the person being questioned (the deponent) is placed under oath and asked to testify about issues on the subject of litigation, which is then transcribed. **2.** The sedimentation of particles previously suspended or circulating in solution.

diffusion d. The accumulation of aerosol particles on a surface due to their random bombardment by gas molecules.

depot (dē'pō, dēp'ō) [Fr. *depot*, fr. L. *depositum*] A place of storage, esp. in the body, such as a fat depot or a drug depot. Drugs that remain in long-term storage in the body after injection include hormonal agents (such as progesterone, testosterone, insulin, and leuprolide) and antipsychotic agents (such as haloperidol and risperidone), among others.

depravation (dēp'rā-vā'shūn) [L. *depravare*, completely destroyed] A pathological deterioration of function or secretion.

depressant (dē-prēs'ānt) [L. *depressus*, pressed down] An agent that decreases the level of a body function or nerve activity (e.g., a sedative).

cardiac d. An agent that decreases heart rate and contractility.

cerebral d. An agent that sedates or tranquilizes.

motor d. An agent that lessens contractions of involuntary muscles.

respiratory d. An agent that lessens frequency and depth of breathing.

depressed (dē-prēst') **1.** Below the normal level, as when fragments of bone are forced below their normal level and that of surrounding portions of bone. **2.** Low in spirits; dejected. **3.** Having a decreased level of function. SEE: *depression*.

depression (dē-prēsh'ūn) [L. *depressio*, a pressing down] **1.** A hollow or lowered region. **2.** The lowering of a part, such as the mandible. **3.** The decrease of a vital function such as respiration. **4.** One of several mood disorders marked by loss of interest or pleasure in living. Disorders linked to depression include dysthymia, major depressive disorder, schizoaffective disorders, bipolar disorders, seasonal affective disorders, postpartum depressive disorders, and mood disorders caused by substance abuse or other medical conditions. Medical and psychiatric conditions that can trigger or exacerbate depression include anxiety disorders, autoimmune diseases, chronic pain, eating disorders, endo-

crine disorders, heart attack, infectious diseases, neurologic disorders (stroke), sleep disorders, substance abuse, and drugs (e.g., some beta blockers, calcium channel blockers, steroids, hormones, chemotherapeutic agents, appetite suppressants, and sedatives). The U.S. Preventive Services Task Force recommends screening for depression in primary care settings. Formal screening tools may be used (e.g., the Beck Depression Inventory, Hamilton Rating Scale for depression, and Geriatric Depression Scale). A simple means of screening for depression is to ask patients:

1. Over the past two weeks have you felt down, depressed, or hopeless?

2. Over the past two weeks have you felt little interest or pleasure in doing things?

Depressive disorders are common: about 20% of women and about 10% of men may suffer from major depression at some point during their lives. Worldwide, depression is considered to be the fourth most serious illness as far as the overall burden it imposes on people's health. Depressed patients have more medical illnesses and a higher risk of self-injury and suicide than patients without mood disorders.

SYMPTOMS: Characteristic symptoms of the depressive disorders include persistent sadness, hopelessness, or tearfulness; loss of energy (or persistent fatigue); persistent feelings of guilt or self-criticism; a sense of worthlessness; irritability; inability to concentrate; decreased interest in daily activities; changes in appetite or body weight; insomnia or excessive sleep; and recurrent thoughts of death or suicide. These symptoms cause pervasive deficits in social functioning.

TREATMENT: Psychotherapies, behavioral therapies, electroconvulsive ("shock") therapies, and psychoactive drugs are effective in the treatment of depressive disorders.



Depressed people who express suicidal thoughts should not be left alone, esp. if hospitalized.

PATIENT CARE: The patient is assessed for feelings of worthlessness or self-reproach, inappropriate guilt, concern with death, and attempts at self-injury. Level of activity and socialization are evaluated. Adequate nutrition and fluids are provided. Dietary interventions and increased physical activity are recommended to manage drug-induced constipation; assistance with grooming and other activities of daily living may be required. A structured routine, including noncompetitive activ-

ities, is provided to build the patient's self-confidence and to encourage interaction. Health care professionals should express warmth and interest in the patient and be optimistic while guarding against excessive cheerfulness. Support is gradually reduced as the patient demonstrates an increasing ability to resume self-care. Drug therapies are administered and evaluated; these may include tricyclic antidepressants (TCAs), selective serotonin reuptake inhibitors (SSRIs), selective norepinephrine and serotonin reuptake inhibitors, dopamine-norepinephrine reuptake inhibitors, and norepinephrine-serotonin modulators. Monamine oxidase (MAO) inhibitors also may be used, but these have a high risk for toxicity unless necessary dietary restrictions are strictly followed. These drugs may be used alone or in combination with specific psychotherapeutic approaches such as cognitive behavioral therapy (CBT) or brief psychosocial counseling. CBT helps patients understand how their thoughts can become distorted and contribute to depression and anxiety and helps them learn coping behaviors that reduce feelings of anxiety, distress, and helplessness caused by distorted thinking.

If electroconvulsive therapy (ECT) is required (usually for patients who haven't responded well to drug therapy or for whom drugs pose a risk), the patient is informed that a series of treatments may be needed. Before each ECT session, the prescribed sedative is administered, and a nasal or oral airway inserted. Vital signs are monitored, and support is offered by talking calmly or by gentle touch. After ECT, mental status and response to therapy are evaluated. The patient may be drowsy and experience transient amnesia but should become alert and oriented within 30 min. The period of disorientation lengthens after subsequent treatments. SEE: *Nursing Diagnoses Appendix*.

agitated d. Depression accompanied by restlessness and increased psychomotor activity.

anaclitic d. Depression in infants suddenly separated from their mothers between the first months and 1 year of age. The loss of the love, affection, and nurturing usually present in the mother-child relationship may cause severe disturbances in health and in motor, language, and social development or may occasionally lead to death. Symptoms first found in affected infants include crying, panicky behavior, and increased motor activity. Later, psychologically abandoned or neglected infants manifest dejection, apathy, staring into space, and silent crying. Recovery is possible if the mother or a surrogate is

available to meet the infant's needs for parental support.

atypical d. ABBR: AD. A form of depression in which overeating and oversleeping are commonly observed, often but not exclusively in association with leaden paralysis, extreme sensitivity to interpersonal rejection, and highly reactive moods. The condition typically has an earlier age of onset than typical depression, is more likely to affect women than men, and shares some features with bipolar disorder.

bipolar d. SEE: *bipolar disorder*.

double d. An episode of major depression superimposed on dysthymic disorder.

endogenous d. Depression that occurs without an apparent precipitating cause. Melancholia.

major d. A mood disorder characterized by a period of at least 2 weeks of depressed mood or the loss of interest or pleasure in nearly all activities.

SYMPTOMS: In children and adolescents, the mood may be irritable rather than sad. Establishing the diagnosis requires the presence of at least four of the following:

1. changes in appetite, weight, sleep, and psychomotor activity;
2. decreased energy;
3. feelings of worthlessness or guilt;
4. difficulty thinking, concentrating, or making decisions; or

5. recurrent thoughts of death or plans for or attempts to commit suicide. The symptoms must persist for most of the day, nearly every day, for at least 2 consecutive weeks. The episode must be accompanied by clinically significant distress or impairment in social, occupational, or other important areas of functioning. Also, the disorder must not be due to bereavement, drugs, alcohol, or the direct effects of a disease such as hypothyroidism. SYN: *major depressive episode mood disorder*.

masked d. Depression in older adults that usually presents with physical symptoms or illness. Also called hidden or somatic depression.

minor d. A mood disorder lasting at least 2 weeks in which fewer symptoms of depression are present than in major depression (two to five symptoms as opposed to more than five).

postnatal d. Postpartum depression.

postpartum d. ABBR: PPD. Depression occurring up to 6 months after childbirth and not resolving in 1 or 2 weeks. The disease occurs in about 10% to 20% of women who have recently delivered.

SYMPTOMS: Affected mothers typically report insomnia or hypersomnia, psychomotor agitation or retardation, changes in appetite, tearfulness, despondency, feelings of hopelessness,

worthlessness or guilt, decreased concentration, suicidal ideation, inadequacy, inability to cope with infant care needs, mood swings, irritability, fatigue, and loss of normal interests or pleasure.

DIAGNOSIS: Two screening tools are available for PPD in English-speaking patients: the Edinburgh Postnatal Depression Scale (EPDS) and the Postpartum Depression Screening Scale (PDSS), both of which appear to be more sensitive in screening PPD than the more general Beck Depression Inventory.

TREATMENT: Drugs (e.g., tricyclic antidepressants and serotonin reuptake inhibitors), counseling, or electroconvulsive therapy are all effective therapies. PPD support groups are generally helpful to women. Online support networks include Postpartum Support International (www.postpartum.net) and Depression After Delivery (www.charityadvantage.com/depressionafterdelivery/Home.asp). Carefully designed studies have shown that nursing care aids in the diagnosis, prevention, and treatment of this disorder. **SYN:** *postnatal depression*. **SEE:** *postpartum blues*.

post-stroke d. A dysphoric mood disorder that follows a cerebral infarction, found in about a quarter of stroke patients. Although for many years depression after strokes was thought to occur mainly in patients who had injured the nondominant hemisphere of the brain, research has shown that this phenomenon is most common in female patients and those who have had higher education.

reactive d. Depression that is usually self-limiting, following a serious event such as a death in the family, the loss of a job, or a personal financial catastrophe. The disorder is longer lasting and more marked than an expected reaction to the stress experienced.

unipolar d. Depression.

winter depression Seasonal affective disorder.

depressive disorder Depression. **SEE:** *Nursing Diagnoses Appendix*.

depressor (*dē-prēs'ō-mō'tor*) [*" + motor, mover*] Having the ability to diminish muscular movements by lessening the impulses for motion sent from the brain or spinal cord; said of drugs.

depressor (*dē-prēs'or*) [*L.*] An instrument for drawing down a body part.

tongue d. A device used to draw down and displace the tongue to facilitate visual examination of the throat.

depressor fiber A nerve that decreases arterial muscle tone and, as a result, lowers blood pressure.

depressor reflex A reflex that results in slowed muscle activity, as in the heart rate.

deprivation (*dēp'rī-vā'shūn*) [*L. de, from, + privare, to remove*] Loss or absence of a necessary part or function.

androgen d. The chemical suppression of male sex hormones to prevent their stimulatory effects on various hormone-sensitive illnesses, including prostate cancer and predatory sexual behavior. **SYN:** *androgen suppression*.

emotional d. Isolation of an individual, esp. an infant, from normal emotional stimuli. In infants this impairs mental and physical development.

occupational d. Prolonged restriction from participation in necessary or meaningful activities due to circumstances outside the individual's control. Geographic isolation, incarceration, disability, or social exclusion may contribute to such circumstances.

sensory d. The absence of usual and accustomed visual, auditory, tactile, or other stimuli (e.g., in patients whose eyes are bandaged for extended periods following eye surgery, patients on respirators, astronauts, or people imprisoned in dark, soundproof cells). The long-lasting absence of normal stimuli eventually produces psychological and neurological symptoms, including auditory and visual hallucinations, anxiety, depression, and delusions.

PATIENT CARE: The patient's usual response to prolonged quiet or isolation is assessed. Patients who require more environmental stimuli (radio, TV noise, social contact) suffer more (and more quickly) than do those who prefer quiet. Stimulation is provided to replace those stimuli that the patient is deprived of. Caregivers tell those patients who cannot see or whose visual field is limited by position or equipment about weather, time of day, and surrounding colors. They also describe equipment, locations, food, and other features of the environment that the patient wants to experience but cannot see, allowing touch to help replace vision. For the patient whose hearing is reduced by location or equipment (or by effects of drug therapy), devices are used that assist the hearing-impaired to understand speech. Sensory-deprived patients are encouraged to use radio or TV as desired, and the health care professional makes frequent visits to prevent these patients from feeling abandoned. Therapies are related to time of day (before breakfast, after dinner, at bedtime, etc.), and a clock and calendar are provided to assist with time orientation. Reported auditory or visual hallucinations should be investigated thoroughly and a source sought that can simulate the sound or sight reported by the patient (e.g., a linen cart may sound like a passing truck; a moving curtain may look like a ghost). Caregivers validate

reality for the patient by changing lighting or altering external noises to eliminate confusion.

sleep d., effects of SEE: *sleep*.

deprogram (dē-prō'grām) To free an individual from some mentally harmful cult, religion, or political belief system.

depth [M.E. *depthe*] **1.** The distance between an elevated and a depressed point; a measure of height. **2.** Richness; intensity; the quality of being deep.

depth dose The actual amount of radiation exposure at a specific point below the surface of the body.

depth psychology The psychology of unconscious behavior, as opposed to the psychology of conscious behavior.

depurant (dēp'ūr-ānt) [L. *depurare*, to purify] **1.** A medicine that helps to purify by promoting the removal of waste material from the body. **2.** Any agent that removes waste material.

depuration (dēp'ūr-ā'shūn) The process of freeing from impurities. **depurative, adj.**

depurator (dēp'ūr-ā'tor) An agent that purifies.

de Quervain's disease (dē kār'vānz) De Quervain's tenosynovitis.

de Quervain's tenosynovitis [Fritz de Quervain, Swiss surgeon, 1868–1940] Chronic tenosynovitis of the abductor pollicis longus and extensor pollicis brevis muscles. Also called de Quervain's disease.

deradelphus (dēr-ā-dēl'fūs) [Gr. *dere*, neck, + *adelphos*, brother] A pair of malformed twins, fused above the thorax and having one head, but separated below the chest as two bodies.

derangement (dē-rānj'mēt) [Fr. *deranger*, unbalance] **1.** Lack of order or organization; confusion. **2.** An injury or its structural consequences. **3.** A defect in the annulus fibrosus of the intervertebral disk allowing the nucleus pulposus to herniate.

Dercum's disease (dēr'kūms) [Francis X. Dercum, U.S. neurologist, 1856–1931] The appearance of multiple painful fatty nodules (lipomas) in the skin of adults, esp. overweight or postmenopausal women. SYN: *adiposis dolorosa*.

deREALIZATION (dē-rēl'ī-zā'shūn) A sense that reality has changed; a sense of detachment from one's surroundings.

derEISM (dēr'rē-izm) [L. *de*, from, + *res*, thing] In psychiatry, activity and thought based on fantasy and wishes rather than logic or reason; overexercise of the imagination to the extent of ignoring reality, as seen in daydreaming.

derEISTIC (dē-rē-ist'ik), *adj.*

derencephalus (dēr'ēn-sēf'ā-lūs) [Gr. *dere*, neck, + *enkephalos*, brain] A congenitally deformed fetus with a rudimentary skull and bifid cervical vertebrae.

derivation (dēr'ī-vā'shūn) [L. *derivare*,

to draw off] The source or origin of a substance or idea.

derivative (dē-rīv'ā-tīv) **1.** Something that is not original or fundamental.

2. Something derived from another body or substance. **3.** Something that produces derivation. **4.** In embryology, anything that develops from a preceding structure, as the derivatives of the germ layers.

derm, derma (dērm, dēr'mā) [Gr. *derma*, skin] True skin. **dermal, adj.**

derm- SEE: *dermato-*.

dermabrasion (dērm'ā-brā'shūn) [" + L. *abrasio*, wearing away] A surgical procedure used to resurface the skin. It may remove acne scars, nevi, tattoos, or fine wrinkles on the skin. Complications of the procedure include infection, skin pigment changes, or scarring. SEE: *skin, chemical peel of; planing*.

Dermacentor (dēr'mā-sēn'tor) A genus of ticks belonging to the order Acarina, family Ixodidae.

D. andersoni The wood tick, a species of ticks that is parasitic on humans or other mammals during some part of its life cycle. It may cause tick paralysis and is a vector of Rocky Mountain spotted fever, scrub typhus, tularemia, brucellosis, Q fever, and several forms of viral encephalomyelitis.

D. variabilis A species of ticks similar to *D. andersoni*. In the central and eastern U.S., it is the main vector for Rocky Mountain spotted fever. It is parasitic to dogs, horses, cattle, rabbits, and humans.

dermad (dēr'mād) [Gr. *derma*, skin, + L. *ad*, toward] Toward the skin; externally.

dermalgia (dēr-māl'jē-ā) [" + *algos*, pain] Pain localized in the skin.

dermamYIASIS (dēr-mā-mī-ī'ā-sīs) [" + *myia*, fly, + *-iasis*, condition] A skin disease caused by infestation by the larvae of dipterous insects. SEE: *myiasis*.

Dermanyssus gallinae (dēr'mā-nī'sūs gāl-ī'nē) [Gr. *derma*, skin + *nyssō*, to prick + L. *gallina*, hen] A species of mite found in chickens. Its bite may cause an itchy rash, esp. prevalent in owners of infested farm animals or pets.

dermat- SEE: *dermato-*.

dermatALgia (dēr'mā-tāl'jē-ā) [Gr. *dermatos*, skin, + *algos*, pain] A paresthesia with localized pain in the skin. SYN: *dermalgia*.

dermatatrophia (dērm'āt-ā-trō'fē-ā) [" + *atrophia*, atrophy] Atrophy of the skin.

dermatITIS (dēr'mā-tī'tīs) *pl.* **dermatITIDES** [Gr. *dermatos*, skin, + *itis*, inflammation] An inflammatory rash marked by itching and redness. SEE: *eczema*.

ETIOLOGY: Inflammation of the skin may be caused by numerous conditions, including contact with skin irritants,

such as the oil that causes poison ivy or oak; venous stasis, with edema and vesicle formation near the ankles; habitual scratching, as is found in neurodermatitis; dry skin, such as in winter itch; and ultraviolet light, as in photosensitivity reactions.

TREATMENT: When a source of dermatitis is identifiable (e.g., in contact dermatitis due to a detergent or topical cosmetic), the best treatment is to avoid the irritating substance and to cleanse any affected area immediately with mild soap and water. Once skin inflammation is established, topical corticosteroid ointments or systemic steroids (during extreme exacerbations), topical immunomodulator agents (in patients above age 2), weak tar preparations and ultraviolet B light therapy (to increase the thickness of the stratum corneum) and antihistamines may be used, with antibiotics reserved for secondary infections. Dermatologists may prescribe occlusive dressings intermittently to help clear lichenified skin.

PATIENT CARE: The patient should avoid known skin irritants. Tepid baths, cool compresses, and astringents sometimes help relieve inflammation and itch. Moisturizing creams or lotions following bathing help to retain skin moisture, but perfumed products should be avoided. Drug therapy is administered and evaluated for desired effects and adverse reactions. The patient is taught how to apply topical medications and is educated about their most common side effects. Scratching is discouraged and the fingernails kept short to limit excoriation. The patient should be made aware that drowsiness may occur with antihistamine use and that driving or operating mechanical equipment should be avoided until the extent of this effect is known. Health care professionals should be careful not to show any negative feelings when touching lesions during assessment or treatment but should follow standard precautions. Skin changes alter body image, and the patient will need assistance in accepting and coping with what he or she may view as disfigurement. Children and adolescents, esp., may require and benefit from counseling to help them deal with emotional components of their condition.

actinic d. A chronic red or eczematous rash, usually on the face or exposed skin surfaces, that typically results from exposure and sensitization to ultraviolet rays. Adults over age 50 may be affected. SYN: *photosensitivity dermatitis*.

allergic contact d. Contact d.

atopic d. Chronic dermatitis of unknown etiology found in patients with a history of allergy. The disease usually begins after the first 2 months of life,

and affected individuals may experience exacerbations and remissions throughout childhood and adulthood. In many cases, the family has a history of allergy or atopy; if both parents have atopic dermatitis, the chances are nearly 80% that their children will have it as well. The skin lesions consist of reddened, cracked, and thickened skin that can become exudative and crusty from scratching. Scarring or secondary infection may occur. Most patients have an elevated level of immunoglobulin E in their serum. SEE: *illius*.



ATOPIC DERMATITIS

TREATMENT: The patient should avoid soaps and ointments. Bathing is kept to a minimum, but bath oils may help to prevent drying of the skin. Clothing should be soft textured and should not contain wool. Fingernails should be kept short to decrease damage from scratching. Antihistamines may help to reduce itching at night. Heavy exercise should be avoided because it induces perspiration. A nonlipid softening lotion followed by a corticosteroid in a propylene glycol base may effectively treat acute exacerbations; when large areas of the body are involved, oral steroids may be needed. Because of the adverse effects associated with corticosteroids, topical immunosuppressants such as tacrolimus that decrease T cell activity have been developed. Antistaphylococcal antibiotics may be needed to control secondary infection, introduced when scratching causes microfissures in the skin.

berlock d. A type of phytophotodermatitis with postinflammatory hyperpigmentation at the site of application of perfumes or colognes containing oil of bergamot.

d. calorica Inflammation due to heat, as in sunburn, or cold.

cerarial d. Swimmer's itch.

contact d. Inflammation and irrita-

tion of the skin due to contact with allergens or an irritating substance. Allergic contact dermatitis is caused by a T-cell-mediated hypersensitivity reaction to environmental allergens, either natural or synthetic. These combine with skin proteins, altering the normal self-antigens so that new, foreign antigens are created. Nonallergic contact dermatitis, also known as irritative contact dermatitis, is usually caused by exposure to a detergent, soap, or other skin irritant. SYN: *dermatitis venenata* (1). SEE: *illus.*



CONTACT DERMATITIS

Allergic reaction to topical anesthetic

SYMPTOMS: Skin changes, which appear 4 to 48 hours after exposure, depending on the degree of sensitivity to the allergen, consist of erythema, local edema, and blisters. The blisters may weep in severe cases. Most patients complain of intense itching. Signs and symptoms of the disease usually last 10 to 14 days. Re-exposure to the cause will trigger a relapse.

TREATMENT: Tepid baths, cool compresses, topical astringents (such as solutions of aluminum acetate), antihistamines, and corticosteroids all provide some relief.

contagious pustular d. A cutaneous disease of sheep and goats transmitted to humans by direct contact. The lesion on humans is usually solitary and on the hands, arms, or face. This maculopapular area may progress to a pustule up to 3 cm in diameter and may last 3 to 6 weeks. The etiological agent is *Parapoxvirus*, which is a genus of poxvirus. SYN: *orf*.

diaper d. Diaper rash.

exfoliative d. Generalized reddening and inflammation of the skin surface, often followed by scaling. The condition may be caused by leukemias or lymphomas that infiltrate the skin; extensive psoriasis; drug reactions (e.g., vancomycin); allergies, seborrhea, or atopy. The condition is often associated with systemic findings, including lymphadenopathy, hepatic and splenic enlargement, fever, anemia, eosinophilia, and decreases in serum albumin.

When the skin involvement is extensive, the patient may become depressed because of the cosmetic changes.

TREATMENT: Therapy is directed at treating the underlying cause.

factitial d. A skin irritation or injury that is self-inflicted.

d. herpetiformis A chronic inflammatory disease characterized by erythematous, papular, vesicular, bullous, or pustular lesions with a tendency to grouping and with intense itching and burning.

ETIOLOGY: The direct cause is unknown. The condition occurs mostly in men; no age is exempt. Some patients have associated asymptomatic gluten-sensitive enteropathy. In those persons the HLA-B8 antigen may be present.

SYMPTOMS: The lesions develop suddenly and spread peripherally. The disease is variable and erratic, and an attack may be prolonged for weeks or months. Secondary infection may follow trauma to the inflamed areas.

TREATMENT: Oral dapsone provides substantial relief of symptoms in a few days. Sulfapyridine also may be used.

d. hiemalis Winter itch.

d. infectiosa eczematoides A pustular eruption during or following a pyogenic disease.

meadow d. A blistering rash that appears on the exposed skin of hikers, florists, gardeners, and individuals who work outdoors in sunny climates. It is a phototoxic reaction caused by exposure to light-sensitizing chemicals in some plants (such as parsley, rue, bergamot, and fig).

d. medicamentosa Drug rash.

d. multiformis A form of dermatitis with pustular lesions.

d. papillaris capillitii Formation of the scalp and neck of papules interspersed with pustules. The rash ultimately produces scarlike elevations resembling keloids.

photoallergic contact d. Photoallergy.

photosensitivity d. Actinic d.

poison ivy d. Dermatitis resulting from irritation or sensitization of the skin by urushiol, the toxic resin of the Rhus (*Toxicodendron*) family of plants. There is no absolute immunity, although susceptibility varies greatly, even in the same individual.

Persons sensitive to poison ivy may also react to contact with other plants, such as the mango rind and cashew oil. These plants contain chemicals that cross-react with the sap present in poison ivy, poison oak, and poison sumac.

SYMPTOMS: An interval of time elapses between skin contact with the poison and first appearance of symptoms, varying from a few hours to several days and depending on the sensi-

tivity of the patient and the condition of the skin. Moderate itching or a burning sensation is soon followed by small blisters; later manifestations vary. Blisters usually rupture and are followed by oozing of serum and subsequent crusting.

PREVENTION: Some barrier creams have been used to prevent poison ivy dermatitis. They are sprayed on the skin prior to anticipated contact with the plant.

TREATMENT: In mild dermatitis, antihistamines and a lotion to relieve itching are usually sufficient. In severe dermatitis, cool, wet dressings or compresses, potassium permanganate baths, and topical corticosteroids are often effective. In some instances intramuscular or oral corticosteroid therapy is used. If plant leaves are burned and the smoke inhaled or if plant leaves are ingested, the patient should be directed to an emergency care center. Demulcents, fluids, morphine, and a high-protein, low-fat diet may be prescribed.

PATIENT CARE: Prevention is important in both persons with known sensitivity and those with no previous contact with or reaction to the plant. Patient teaching focuses on helping the patient to recognize the plant, to avoid contact with it, and to wear long-sleeved shirts and long pants in wooded areas. If contact occurs, the patient should wash with soap and water immediately to remove the toxic oil. Contaminated clothing and pets also should be promptly and thoroughly washed, as contact with such items may cause poison dermatitis in other members of the household.

primary d. Dermatitis that is a direct rather than an allergic response.

radiation d. Dermatitis due to radiation exposure. SYN: *radioepidermitis; radioepithelitis; radiodermatitis.*

rhus d. Contact dermatitis caused by the toxic resin in poison ivy or oak. SEE: *poison ivy dermatitis; Toxicodendron.*

schistosome d. Swimmer's itch.

d. seborrheica An acute or subacute inflammatory skin disease of unknown cause, beginning on the scalp and/or face and in skin folds (any area where sebaceous glands are active) and characterized by rounded, irregular, or circinate lesions covered with yellow or brown-gray greasy scales. SYN: *pityriasis capitis; seborrhea corporis; seborrhea sicca.* SEE: *Nursing Diagnoses Appendix.*

SYMPTOMS: Pruritus is commonly experienced along with redness and inflammation in affected areas. On the scalp, it may be dry with abundant grayish branny scales, or oozing and crusted, a condition called eczema capitis. The rash may spread to the forehead and postauricular regions. The forehead

shows scaly and infiltrated lesions with dark red bases and localized loss of hair. The eyebrows and eyelashes may have dry, dirty white scales. Inflamed skin and scales may be present on the nasolabial folds or the vermilion border of the lips. On the sternal region, the lesions are greasy to the touch. Eruptions may also appear in interscapular, axillary, and genitocrural regions. Cold winter weather may worsen the condition.

TREATMENT: When the condition is limited to the scalp, frequent shampooing and use of mild keratolytic agents are indicated. Selenium-containing shampoos are helpful. Generalized seborrheic dermatitis requires careful attention, including scrupulous skin hygiene, frequent washing and shampooing with selenium sulfide suspension to remove scales, keeping the skin as dry as possible, and using dusting powders. Fluorinated corticosteroids may be applied topically to nonhairy areas and systemic cortisone preparations may be required. The differential diagnosis includes psoriasis; it should be ruled out and neurologic conditions recognized as possible predisposing factors.

PATIENT CARE: The health care provider explains to the patient that the condition has remissions and exacerbations; also that hormone imbalances, nutritional status, infection, and emotional stress influence its course. The patient is taught how to apply prescribed corticosteroids to the body and face. Fluorinated corticosteroids should be used with caution near the eyelids, on the face, and in the groin. To avoid developing a secondary *Candida* yeast infection in body creases or folds, the patient is advised to carefully cleanse these areas, to dry gently but thoroughly, and to ensure that the skin is well aerated. He or she is taught to treat seborrheic scalp conditions (dandruff) with proper and frequent shampooing, alternating two or three different types of shampoo to prevent the development of resistance to a particular product. External irritants and excessive heat and perspiration should be avoided. Rubbing and scratching the skin are discouraged, as they prolong exacerbations and increase the risk for secondary infection and excoriation, especially since scaly, pruritic lesions present in skin areas with high bacteria counts. Oral antibiotics (e.g., tetracycline) may be prescribed (as in acne vulgaris) in small doses over a prolonged period to reduce bacterial colonization. The patient is advised to take tetracycline at least 1 hr before or 2 hr after meals, since the drug is poorly absorbed with food. The patient also is taught about the drug's adverse effects (photosensitivity, birth de-

fects, nausea, vomiting, and candidal vaginitis) and their management. Adherence to the treatment regimen is stressed to achieve optimal results. Psychological support or counseling is provided as necessary to deal with related body image concerns.



stasis d. Eczema of the legs with edema, pigmentation, and sometimes chronic inflammation. It is usually due to impaired return of blood from the legs. Compression stockings help the rash to resolve gradually. **SEE: illus.**



STASIS DERMATITIS

d. venenata 1. Contact d. 2. Any inflammation caused by local action of various animal, vegetable, or mineral substances contacting the surface of the skin.

d. verrucosa A chronic fungal infection of the skin characterized by the formation of wartlike nodules. These may enlarge and form papillomatous structures that sometimes ulcerate.

ETIOLOGY: This condition may be due to one of several fungi, including *Hormodendrum pedrosoi* or *Phialophora verrucosa*.

dermato-, dermat-, derm- Combining forms meaning *skin*.

Dermatobia (dĕr"mă-tō'bĕ-ă) [" + *bios*, life] A genus of botflies belonging to the order Diptera of the family Oestridae. **SYN:** *botfly*.

D. hominis A species of botflies, found in parts of tropical America, whose larvae infest humans and cattle. The eggs are transported by mosquitoes.

dermatobiasis (dĕr"mă-tō-bī'ă-sīs) Infestation by the larvae of *Dermatobia hominis*, the eggs of which are carried to the skin by mosquitoes. The larvae then hatch and bore into the skin while the mosquito feeds. Marblelike boils form at the site of infestation.

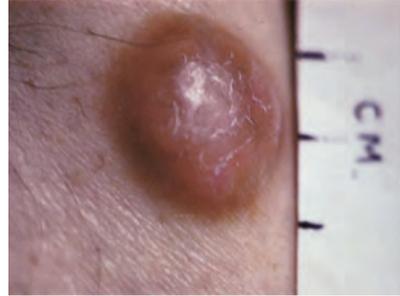
dermatocellulitis (dĕr"mă-tō-sĕl"ū-lī'tīs) [" + *L. cellula*, little cell, + *Gr. itis*,

inflammation] Inflammation of subcutaneous connective tissue.

dermatocniosis (dĕr"mă-tō-kō'nĕ-ō'sīs) [" + *konia*, dust] Any irritation of the skin caused by dust, esp. one due to occupational exposure.

dermatocyst (dĕr"mă-tō-sĭst) [" + *kystis*, cyst] A skin cyst.

dermatofibroma (dĕr"mă-tō-fi-brō'mă) [" + *L. fibra*, fiber, + *Gr. oma*, tumor] A firm but freely movable benign skin nodule, often found on the lower extremities. **SEE: illus.; dimple sign.**



DERMATOFIBROMA

dermatofibrosarcoma (dĕr"mă-tō-fi"brō-săr-kō'mă) [" + " + *Gr. sarx*, flesh, + *oma*, tumor] Fibrosarcoma of the skin.

dermatogen (dĕr-măt'ō-jĕn) [" + *genan*, to produce] Antigen from a skin disease.

dermatogenous (dĕr"mă-tōj'ĕn-ŭs) Producing skin or skin disease.

dermatoglyphics (dĕr"mă-tō-glĭf'iks) [" + *glyphe*, a carving] Study of the surface markings of the skin, esp. those of the hands and feet, used in identification and genetic studies. **SEE: fingerprint for illus.**

dermatographism Dermographism.

dermatoheliosis (dĕr"mă-tō-hĕ'lĕ-ō'sīs) Photoaging.

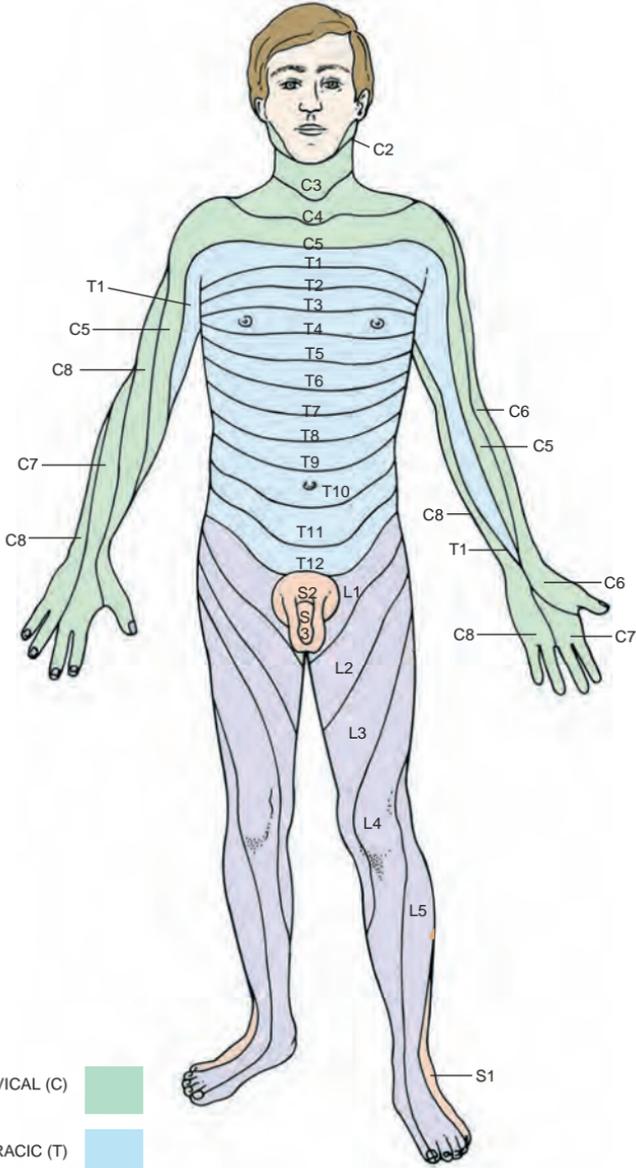
dermatologist (dĕr"mă-tōl'ō-jĭst) [*Gr. dermatos*, skin, + *logos*, word, reason] A physician who specializes in treating diseases of the skin.

dermatology (dĕr"mă-tōl'ō-jĕ) The science of the skin and its diseases.

dermatolysis (dĕr"mă-tōl'ī-sīs) [" + *lysis*, dissolution] A tendency of hypertrophied skin and subcutaneous tissue to hang in folds; loose skin. **SYN:** *cutis laxa*; *cutis pendula*; *pachydermatocele* (1).

dermatoma (dĕr"mă-tō'mă) [" + *oma*, tumor] A circumscribed thickening of skin.

dermatome (dĕr"mă-tōm) [*Gr. derma*, skin, + *tome*, incision] 1. An instrument for cutting thin slices for skin transplantation. 2. A band or region of skin supplied by a single sensory nerve. **SEE: illus.** 3. The lateral portion of the



DERMATOME

somite of an embryo, where the dermis of the skin originates; the cutis plate.
dermatomucosomyositis (dér'mā-tō-mū-kō'sō-mī-ō-sī'tis) [" + *L. mucosa*,

mucous membrane, + *Gr. mys*, muscle, + *itis*, inflammation] An inflammation involving the mucosa and muscles.

dermatomycosis (dĕr"mă-tō-mī-kō'sīs)
pl. dermatomycoses [" + *mykes*, fungus, + *osis*, condition] A skin infection caused by certain fungi of the genera *Trichophyton*, *Epidermophyton*, and *Microsporum*. SYN: *tinea*.

dermatomyoma (dĕr"mă-tō-mī-ō'mă) [" + *mys*, muscle, + *oma*, tumor] Myoma of the skin.

dermatomyositis (dĕr"mă-tō-mī"ō-sī'tīs) [" + " + *itis*, inflammation] A rare acute, subacute, or chronic disease of connective tissue, of unknown cause, marked by edema, rash, weakness, pain, and inflammation of the muscles. SEE: *illus.*



DERMATOMYOSITIS

SYMPTOMS: Dermatomyositis symptoms include fever, malaise, and weakness, esp. of the pelvic and shoulder girdle muscles, neck, and pharynx; skin and mucosal lesions (e.g., Gottron's papules), and joint discomfort. Performance of ordinary activities (getting up from a chair, combing one's hair, reaching above one's head, raising one's head from pillow) are affected. About one third of patients have dysphagia. Dysphonia and difficulty breathing also may be present, with death associated with respiratory disease, heart failure, associated cancers, or adverse effects of drug therapies. The disease progresses slowly, with frequent exacerbations and remissions, and occurs two times more frequently in females than in males. The prognosis worsens with aging.

TREATMENT: The treatment is symptomatic and includes bedrest, physical therapy, high-dose steroid therapy, and other anti-inflammatory agents. Cytotoxic drugs such as azathioprine, cyclophosphamide, and methotrexate are often beneficial in patients who do not respond to adrenocortical steroids. Analgesics are provided as necessary. Serum muscle enzyme levels and muscle strength usually improve after 2 to 6 weeks of vigorous therapy,

allowing corticosteroid dosages to be gradually tapered down.

PATIENT CARE: The patient's level of discomfort, muscle weakness, and joint range of motion are assessed and documented daily. The patient's face, neck, upper back, chest, nail beds, eyelids, and interphalangeal joints are evaluated for rashes, and any findings are documented. Frequent assistance is provided to help the patient reposition in correct body alignment; appropriate supportive devices, frequent passive ROM exercises, and graduated exercises are used to prevent and treat muscle atrophy and joint contractures. Warm baths, moist heat, and massage are provided to relieve stiffness, and prescribed analgesics are administered. Oral lesions are irrigated with warm saline solution, as necessary. Tepid sponge baths and compresses are used to relieve pruritus and to prevent scratching; antihistamines are also administered as prescribed. Self-care activities, with assistance if necessary, are encouraged and paced according to the patient's response. Reassuring the patient that muscle weakness during exacerbations is temporary helps to ease fears of dependence. Prescribed corticosteroid, cytotoxic, or immunosuppressant drugs are administered, and the patient's response is evaluated.

Both patient and family are educated about the disease process, treatment expectations, and possible adverse reactions to corticosteroid, cytotoxic, and immunosuppressant therapies. Good nutrition and a low-sodium diet are recommended to prevent fluid retention. The patient should be educated about the potential ongoing side effects of therapy (e.g., those associated with chronic, high-dose corticosteroids) and assisted to develop physical and emotional coping skills to deal with these. The patient is encouraged to express feelings, fears, and concerns about the illness; realistic support and encouragement are provided.

dermatopathology (dĕr"mă-tō-pă-thōl'ō-jē) [" + " + *logos*, word, reason] The study of skin diseases.

dermatopathy, dermatopathia (dĕr"mă-tōp'ă-thē) Any skin disease.

dermatophilosis (dĕr"mă-tō-fī-lō'sīs) An actinomycotic infection that occurs in certain hooved animals and rarely in humans. SYN: *dermatophiliasis*.

dermatophyte (dĕr"mă-tō-fit) [" + *phyton*, plant] A fungal parasite that grows in or on the skin. Dermatophytes rarely penetrate deeper than the epidermis or its appendages—hair and nails. They cause skin diseases such as favus, tinea, ringworm, and eczema. Important dermatophytes include the genera *Micros-*

porum, *Trichophyton*, and *Epidermophyton*.

dermatophytid (dĕr'mă-tŏf'ĭ-tĭd) A toxic rash or eruption occurring in dermatomycosis.

dermatophytosis (dĕr'mă-tŏ-fi-tŏ'sĭs) [" + *phyton*, plant, + *osis*, condition] Athlete's foot.

dermatoplastic (dĕr'mă-tŏ-plăs'tĭk) [" + *plassein*, to form] Pert. to skin grafting.

dermatoplasty (dĕr'mă-tŏ-plăs'tĕ) Transplantation of living skin to cover cutaneous defects caused by injury, operation, or disease.

PATIENT CARE: Techniques are employed during surgery to protect the graft from dislodgement. Postoperative measures include use of splints and dressings, which are employed to minimize trauma, prevent undue motion, prevent infection, and promote healing of both the transplant site and the donor site. Signs of infection such as fever and pain are monitored, and assistance is offered to help the patient to cope with altered mobility. Any discomfort is assessed, and pain relief is provided as indicated. Nutrition is emphasized to aid healing.

dermatorrhexis (dĕr'mă-tŏ-rĕk'sĭs) [" + *rhexis*, rupture] Rupture of the skin and capillaries in the skin.

dermatosclerosis (dĕr'mă-tŏ-skĭĕr-ŏ'sĭs) [" + *sklerosis*, hardening] Infiltration of the skin with fibrous material.

dermatoscopy Microscopy.

dermatosis (dĕr'mă-tŏ'sĭs) *pl.* **dermatoses** [" + *osis*, condition] Any skin disease, esp. any noninflammatory skin disease. SEE: *dermatitis*.

d. papulosa nigra An eruption consisting of many tiny tumors, or milia, on facial skin. It is more common in blacks than in other ethnic groups.

progressive pigmentary d. A slowly progressive eruption of reddish papules, principally on the legs.

dermatosome (dĕr'mă-tŏ-sŏm) [" + *soma*, body] The portion of the spindle fibers on the equator of a dividing cell.

dermatosparaxis (dĕr'mă-tŏ-spăr-răk'sĭs) [" + Gr. *sparassein*, to tear] Loose, sagging, fragile, and easily bruised skin. When it is caused by a deficiency of procollagen I, it is responsible for a rare variant of Ehlers-Danlos syndrome.

dermatotherapy (dĕr'mă-tŏ-thĕr'ă-pĕ) [" + *therapeia*, treatment] Treatment of skin disease.

dermatotome (dĕr'mă-tŏ-tŏm") [" + *tome*, incision] **1.** One of the fetal skin segments. **2.** A knife for incising the skin or small lesions. SYN: *dermatome* (1).

dermatotropic (dĕr'mă-tŏ-trŏp'ĭk) [" + *trope*, a turning] Acting preferentially on the skin.

dermatozoon (dĕr'mă-tŏ-zŏŏn) [" +

zoon, animal] An animal parasite of the skin.

dermatozoonosis (dĕr'mă-tŏ-zŏŏŏ-nŏ'sĭs) [" + " + *nosos*, disease] Any skin disease caused by an animal parasite.

dermic (dĕr'mĭk) [Gr. *derma*, skin] Pert. to the skin.

dermis (dĕr'mĭs) [L.] The layer of the skin lying immediately under the epidermis; the true skin. It consists of two layers, papillary and reticular. The corium dermis is composed of fibrous connective tissue made of collagen and elastin and contains numerous capillaries, lymphatics, and nerve endings. In it are hair follicles and their smooth muscle fibers, sebaceous glands and sweat glands, and their ducts. SYN: *corium*; *cutis vera*.

dermoblast (dĕr'mŏ-blăst) [Gr. *derma*, skin, + *blastos*, germ] Part of the mesoblastic layer, developing into the corium.

dermographia, dermatography (dĕr'mŏ-grăf'ĕ-ă, dĕr-mŏg'ră-fĕ) A form of urticaria due to allergy.

dermographism (dĕr-mŏg'ră-fĭzm) A form of urticaria (hives) in which a pale raised wheal and red flare are produced on the skin when it is gently stroked or scratched. SYN: *dermatographism*. SEE: *illus*.



DERMOGRAPHISM

dermoid (dĕr'moyd) [" + *eidōs*, form, shape] **1.** Resembling the skin. **2.** Dermoid cyst.

dermoidectomy (dĕr'moyd-ĕk'tŏ-mĕ) [" + " + *ektome*, excision] Excision of a dermoid cyst.

dermolipoma (dĕr'mŏ-lĭ-pŏ-mă) **1.** A growth of yellow fatty tissue beneath the bulbar conjunctiva. **2.** A lipoma of the skin.

dermopathy (dĕr-mŏ'pă-thĕ) [" + "] Any disease of the skin.

diabetic d. Necrobiosis lipoidica diabetorum.

dermovascular (dĕr'mŏ-văs'kŭ-lăr) [" + *vas*, vessel] Concerning the skin and its blood vessels.

DES diethylstilbestrol.

desalination (dĕ-săl'ĭ-nă'shŭn) Partial or complete removal of salts from a substance, as from seawater or brackish

water, so that it is suitable for agricultural or household purposes but not necessarily for drinking.

desaturation (dē-sāt'ū-rā'shūn) [L. *de*, from, + *saturare*, to fill] 1. A process whereby a saturated organic compound is converted into an unsaturated one, as when stearic acid, C₁₈H₃₆O₂, is changed into oleic acid, C₁₈H₃₄O₂. The product has different physical and chemical properties after this transformation. SEE: *saturated hydrocarbon*. 2. The removal of a component from a chemical solution (e.g., a solute from a solvent). 3. The dissociation of oxygen from hemoglobin.

Desault's apparatus, Desault's bandage (dē-sōz') [Pierre J. Desault, Fr. surgeon, 1744–1795] A bandage used to stabilize a fracture of the clavicle.

descemetitis (dēs'ē-mē-tī'tis) Inflammation of Descemet's membrane.

Descemet's membrane (dēs-ē-māz') [Jean Descemet, Fr. anatomist, 1732–1810] An elastic layer deep in the corneal layers formed of endothelium.

descemetocele (dēs'ē-mēt'ō-sēl) A protrusion of Descemet's membrane.

descend To move from the top of the body toward the feet; to move in a caudal direction.

descendens (dē-sēn'dēns) [L. *de*, from, + *scendere*, to climb] Descending; a descending structure.

d. hypoglossi A branch of the hypoglossal nerve occurring at the point at which the nerve curves around the occipital artery, which passes down obliquely across (sometimes within) the sheath of the carotid vessels to form a loop just below the middle of the neck with branches of the second and third cervical nerves.

descensus (dē-sēn'sūs) [L.] The process of falling; descent.

d. testis The normal passage of the testicle from the abdominal cavity down into the scrotum. This occurs during the last few months of fetal life. SYN: *migration of testicle*.

d. uteri Prolapse of uterus.

d. ventriculi Downward displacement of the stomach. SYN: *gastroptosis*.

desensitization (dē-sēn'sī-tī-zā'shūn)

1. Treatment of an allergy by repeated injections of a dilute solution containing the allergen. The concentration is designed to be too weak to cause symptoms but strong enough to promote gradual immune tolerance. It increases the levels of immunoglobulin G, which blocks immunoglobulin E from binding to mast cells and initiating the release of the chemical mediators of inflammation. Although not always successful, desensitization is still commonly used, particularly for patients whose allergic response to an antigen is systemic ana-

phylaxis. SYN: *hyposensitization*. SEE: *allergy; anaphylaxis; tolerance*.



The patient must be closely monitored for signs of anaphylaxis for at least 20 min after each injection of dilute antigen. Emergency drug therapy is maintained nearby for immediate treatment of anaphylaxis. Prescribed antihistamine therapy is provided to relieve lesser allergic symptoms (e.g., urticaria, pruritus, wheezing).

2. In psychiatry, the alleviation of an emotionally upsetting life situation.

phobic d. Systematic d.

systematic d. A form of behavior therapy, used particularly for phobias, in which the patient is gradually exposed to anxiety-producing stimuli until they no longer produce anxiety. SYN: *phobic desensitization*. SEE: *implosion flooding*.

desensitize (dē-sēn'sī-tīz) [L. *de*, from, + *sentire*, to perceive] 1. To deprive or lessen sensitivity by nerve section or blocking. 2. To administer dilute concentrations of an allergen to block allergic responses.

desert fever, desert rheumatism Coccidioidomycosis.

desexualize (dē-sēks'ū-āl-īz) [" + *sexus*, sex] To castrate; to remove sexual traits.

desferrioxamine (dēs-fēr'ē-ōks'ā-mēn) Deferoxamine mesylate.

desiccant (dēs'i-kānt) Causing desiccation or dryness.

desiccate (dēs'i-kāt) [L. *desiccare*, to dry up] To dry. To remove water from any substance, e.g., by heating or by storage with a hygroscopic materials.

desiccation (dēs'i-kā'shūn) The process of drying up. SEE: *electrodesiccation*.

designated infection (and exposure) control officer ABBR: DICO. An officer working in emergency medical services charged with the responsibility of maintaining appropriate guidelines for the service with respect to exposure of clients to potentially infectious or toxic agents.

-desis Suffix meaning *binding, fixation*.

desktop video computing A video conferencing system in which at least one terminal is a personal computer.

desmepithelium (dēs-mēp-i-thē'lē-ūm) [" + *epi*, upon, + *thele*, nipple] The epithelial lining of vessels and synovial cavities.

desmitis (dēs-mī'tis) [" + *itis*, inflammation] Inflammation of a ligament.

desmo- [Gr. *desmos*, band] Combining form indicating a band or ligament.

desmocranium (dēs'mō-krā'nē-ūm) [" + L. *cranium*] In the embryo, the earliest form of the skull.

desmocyte (dēs'mō-sīt) [" + *kytos*, cell]

A connective tissue cell. SYN: *fibroblast*; *fibrocyte*.

desmocyoma (dēs"mō-sī-tō'mă) [" + " + *oma*, tumor] A tumor formed of desmocytes. A sarcoma.

desmogenous (dēs-mōj'ē-nūs) [" + *gennan*, to produce] Originating in connective tissue.

desmoglein (déz"mō-glē'in) A cell surface molecule typically found in desmosomes. Autoantibody disruption of cellular adhesion by desmogleins results in pemphigus. Disruption of desmogleins by staphylococcal toxins is responsible for the blistering of the skin seen in staphylococcal scalded skin syndrome.

desmoid (dēs'moyd) [" + *eidōs*, form, shape] 1. Tendonlike. SYN: *fibroid* (1). 2. A very tough and firm fibroma.

desmology (dēs-mōl'ō-jē) [" + *logos*, word, reason] The science of tendons and ligaments.

desmoma (dēs-mō'mă) [" + *oma*, tumor] Desmoid tumor.

desmopathy (dēs-mōp'ă-thē) [" + *pathos*, disease, suffering] Any disease affecting ligaments.

desmoplasia (dēs-mō-plă'zē-ă) [" + Gr. *plassein*, to form] An abnormal tendency to form fibrous tissue or adhesive bands.

desmoplastic (dēs"mō-plăs'tik) [" + *plassein*, to form] Causing or forming adhesions.

desmopressin acetate (dēs"mō-prēs'in) A synthetic antidiuretic, a vasopressin analog, with greater antidiuretic activity but less pressor activity than vasopressin. Desmopressin is used to treat central diabetes insipidus, primary nocturnal enuresis (bedwetting), and bleeding caused by mild forms of hemophilia A or von Willebrand's disease.

desmorrhaxis (dēs-mō-rēk'sis) [" + *rhaxis*, rupture] Rupture of a ligament.

desmosis (dēs-mō'sis) [" + *osis*, condition] Any disease of the connective tissue.

desmosome (dēs'mō-sōm) [" + *soma*, body] A cellular junction made of glycoprotein that provides attachment and stability between epithelial cells and in the intercalated disks of cardiac muscle.

desmotologist (déz'mă-tōl'ă-jist) A health care provider who specializes in the care of the incarcerated.

desmology (déz'mă-tōl'ă-jē) The branch of medicine that addresses the health care needs of people detained in jails, juvenile detention centers, and prisons. Common conditions encountered in these settings include depression, hepatitis C, acquired immunodeficiency syndrome (AIDS), personality disorders, psychosis, and trauma. SYN: *desmoteric medicine*.

desmotomy (dēs-mōt'ō-mē) [" + *tome*, incision] Dissection of a ligament.

desoxy- Prefix meaning deoxidized or a reduced form of.

desoxycorticosterone (dēs-ōk"sē-kor-tī-kōs'tēr-ōn) An active steroid hormone produced by the adrenal cortex. It plays an important role in the regulation of water and salt metabolism.

despair The eighth stage in Erikson's developmental theory; the opposite of ego integrity. The individual experiences sorrow over past life events and dismay over a foreshortened life.

desquamate (dēs'kwă-măt) [L. *desquamare*, to remove scales] To shed or scale off the surface epithelium.

desquamation (dēs'kwă-mă'shūn) 1. Shedding of the epidermis. 2. The peeling skin characteristic of postmature infants.

furfuraceous d. Shedding of branlike scales.

desquamative (dēs-kwōm'ă-tiv) Of the nature of desquamation, or pert. to or causing it. SYN: *keratolytic*.

DES syndrome The occurrence of neoplasms and malformation of the vagina in young women whose mothers received diethylstilbestrol early in their pregnancy. SEE: *DES daughter*.

destination therapy The use of permanently implanted left ventricular assist devices to treat patients with severe end-stage heart failure. Destination therapy is typically employed for patients who either are deemed poor candidates for heart transplantation or for those who cannot obtain a heart for transplantation as a result of a shortage of organs.

destructive [L. *destructus*, destroyed] Causing ruin or destruction; the opposite of constructive.

destructive lesion A pathological change such as an infection, tumor, or injury that causes the death of tissue or an organ.

desulfhydrase (dē'sulf-hī'drās) An enzyme that cleaves cysteine into hydrogen sulfide, ammonia, and pyruvic acid.

desynchronosis (dē-sin'krō-nō'sis) [" + Gr. *synkhronos*, same time] An upset of a person's internal biological clock, caused by the difference between the time at a person's present location and the time to which the person is accustomed. This condition occurs in persons traveling across several time zones in a short period. The lay term for this condition is "jet lag." SYN: *time zone change syndrome*.

Desyrel SEE: *trazodone*.

DET *diethyltryptamine*.

det L. *detur*, let it be given.

detachment [O.Fr. *destachier*, to unfasten] 1. The process of separating or the state of being separated. 2. Avoidance of emotional or interpersonal ties. 3. Apathy. 4. Lack of interest.

detail 1. The resolution of a radiologic

image; the clarity or distortion of its individual elements. **2.** In pharmacology, to provide person-to-person education about the pharmacology, uses, and side effects of a drug.

detector [L. *detectus*, uncovered] A device for determining the presence of something, as an image detector.

flame ionization d. ABBR: FID. A device used in gas chromatography in which a sample burned in a flame changes the conductivity between two electrodes.

flat field image d. Flat panel image d.

flat panel image d. An image detector, usually composed of selenium or silicon, that is used in digital radiography to convert x-rays into light or an electronic signal. SYN: *flat field image detector*.

optical d. The sensor in a typical colorimeter or photometer that senses the light transmitted by the sample.

radiation d. An instrument used to detect the presence of radiation. SEE: *dosimeter*.

detergent [L. *detergere*, to cleanse]

1. Something that purges or cleanses; cleansing. **2.** A cleaning or wetting agent prepared synthetically from any of several chemicals. These are classed as anionic if they have a negative electric charge or cationic if they have a positive charge. SEE: *soap*.

anionic d. A natural or synthetic chemical substance with disinfectant properties due to the presence of an active, negatively charged chemical group.

deterioration [L. *deteriorare*, to deteriorate] Retrogression; said of impairment of mental or physical functions.

determinant (dē-tēr'mī-nānt) [L. *determinare*, to limit] That which determines the character of something.

determination [L. *determinatus*, limiting] The establishing of the nature or precise identity of a substance, organism, or event.

determinism (dē-tēr'mīn-izm) [" + Gr. *-ismos*, condition] The theory that all human action is the result of predetermined and inevitable physical, psychological, or environmental conditions uninfluenced by personal choices or random events.

deterministic effect An effect that has a threshold of chemical or radiation exposure below which are no measurable effects and above which the severity is dose-related.

deterrent (dē-tēr'ēt) [L. *deterre*, to deter] **1.** An agent that inhibits the action of another agent. **2.** An agent that discourages or prevents the use of another agent.

smoking d. Any agent, such as nicotine, nicotine antagonists, or some an-

tididepressant drugs, that relieves the desire to smoke tobacco products.

detorsion (dē-tor'shūn) **1.** Surgical therapy for torsion of a testicle, ureter, or volvulus of the bowel. **2.** Correction of any bodily curvature or deformity.

detox (dē'tōks) Colloquial term for detoxification.

detoxicant (dē-tōk'si-kīnt) [" + "] Any agent, e.g., activated charcoal, that removes toxins from the body.

detoxification (dē-tōk'si-fi-kā'shūn) [" + " + L. *facere*, to make] **1.** Reduction of the toxic properties of a poisonous substance. SEE: *biotransformation*. **2.** The process of removing the physiological effects of a drug or substance from an affected individual.

detoxify (dē-tōk'si-fi) **1.** To remove the toxic quality of a substance. **2.** To treat a toxic overdose of any medicine, but esp. of the toxic state produced by drug abuse or acute alcoholism.

detrition (dē-trīsh'ūn) [L. *detritus*, to rub away] The wearing away of a part, esp. through friction, as of the teeth. SEE: *bruxism*.

detritus (dē-trī'tūs) [L., to rub away] Any broken-down, degenerative, or carious matter produced by disintegration.

detrusor hyperactivity with impaired contractility ABBR: DHIC. Detrusor instability.

detrusor instability Contractions of the muscles of the urinary bladder during the filling phase of a urodynamic study or during coughing, sneezing, or other activities that raise intra-abdominal pressures. It is a cause of urinary incontinence, esp. in women. Some experts believe detrusor overactivity to be the most common cause of urinary incontinence in older adults. Causes include urethral obstruction, cystitis, bladder carcinoma, stroke, Parkinson's disease, and multiple sclerosis. SYN: *detrusor hyperactivity with impaired contractility*; *detrusor overactivity*.

detrusor overactivity Detrusor instability.

detrusor urinae (dē-trū'sor ū-rī'nē) [L.] The external longitudinal layer of the muscular coat of the bladder.

detumescence (dē'tū-mēs'ēns) [L. *de*, down, + *tumescere*, to swell] **1.** Subsidence of a swelling. **2.** Subsidence of the swelling of erectile tissue of the genital organs (penis or clitoris) following erection.

deuter- SEE: *deutero-*.

deuteranopia, deuteranopsia (dū'tēr-ān-ō'pē-ā, -ōp'sē-ā) [" + *anopia*, blindness] Green blindness; color blindness in which there is a defect in the perception of green. SEE: *color blindness*.

deuterate (dū'tēr-āt) To combine with deuterium.

deuterium (dū-tē'rē-ūm) [Gr. *deuteros*, second] SYMB: H² or D. The isotope of

hydrogen, whose mass is 2, sometimes called heavy hydrogen.

d. oxide An isotope of water in which hydrogen has been displaced by its isotope, deuterium. Its properties differ from ordinary water in that it has higher freezing and boiling points and is incapable of supporting life. SYN: *heavy water*.

deutero-, deuter-, deuto- [Gr. *deuteros*, second] Prefixes indicating *second* or *secondary*.

Deuteromycotina (doo'tēr-ō-mī'kō-tēn'ā, dū" [NL.]) In one system of taxonomy, the phylum of the imperfect fungi. It is equivalent to the class Hyphomycetes in another system of taxonomy.

deuteron (dū'tēr-ōn) SYMB: d. The nucleus of deuterium or heavy hydrogen.

deuteroplasm (dū-tēr'ō-plāzm) [r + LL. *plasma*, form, mold] The reserve food supply in the yolk or ovum.

deuto- SEE: *deutero-*.

devascularization (dē-vās'kū-lār-ī-zā'shūn) [r + *vascularis*, pert. to a vessel] A decrease in the blood supply to a body part by a pathologic or surgical process.

developer In radiology and photography, the solution used to make the latent image visible on the radiographic film.

development [O.Fr. *desveloper*, to unwrap] Growth to full size or maturity, as in the progress of an egg to the adult state. SEE: *growth*.

cognitive d. The sequential acquisition of the ability to learn, reason, and analyze that begins in infancy and progresses as the individual matures.

psychomotor and physical d. of infant SEE: *psychomotor and physical development of infant*.

risk for delayed d. At risk for delay of 25% or more in one or more of the areas of social or self-regulatory behavior, or cognitive, language, gross, or fine motor skills. SEE: *Nursing Diagnoses Appendix*.

developmental Pert. to development.

developmental articulation disorder Phonological disorder.

developmental coordination disorder Exceptional clumsiness, or an unusual delay in meeting motor milestones of childhood when such a delay results in functional impairment and cannot be attributed to other medical conditions. SYN: *motor skills disorder*.

developmental delay An impairment in the performance of tasks or the meeting of milestones that a child should achieve by a specific chronological age. The diagnosis of a developmental delay is made with testing that assesses cognitive, physical, social, and emotional development as well as communication and adaptive skills.

developmental milestone A skill regarded as having special importance in

the development of infants, toddlers, and older children and teens, usually associated with a particular age range (e.g., sitting, crawling, walking, language acquisition).

developmental phonological disorders

A group of language disorders occurring before age 4 in children and evidenced by difficulty in producing readily understandable speech. SYN: *phonological disability*.

Developmental Test of Visual Motor Integration A test of visual perception and motor planning requiring the copying of shapes and forms.

deviance [L. *deviare*, to turn aside] A variation from the accepted norm.

deviant Something (or someone) that is variant when compared with the norm or an accepted standard.

sex d. One whose sexual behavior is considered to be abnormal or socially unacceptable. SEE: *paraphilia*.

deviant behavior Any behavior considered to be grossly abnormal.

deviate (dē've-āt") [L. *deviare*, to turn aside] **1.** To move steadily away from a designated norm. **2.** An individual whose behavior, esp. sexual behavior, is so far removed from societal norms that it is classed as socially, morally, or legally unacceptable.

deviation (dē-vē-ā'shūn) **1.** A departure from the normal. **2.** To alter course or direction.

axis d. A shift of the normal electrical vectors of the heart, seen sometimes as a result of conduction disease, enlargement of the chambers of the heart, obstructive lung disease, or other conditions.

conjugate d. Deviation of the eyes to the same side.

minimum d. The smallest deviation that a prism can produce.

device (dī-vis') [O.Fr. *devis*, contrivance] An apparatus, machine, or shaped object constructed to perform a specific function.

abduction d. A trapezoid-shaped pillow, wedge, or splint placed between the arm and torso to prevent adduction. It is commonly used postoperatively for patients having total hip replacement or open reduction or internal fixation of the hip. SEE: *illus*.

adapted seating d. ABBR: ASD. A device that provides proper positioning for persons with limited motor control. These include seating inserts, wheelchairs, and postural support systems designed to prevent deformities and enhance function. SYN: *seating system*.

adaptive d. Assistive technology.

assistive technology d. Assistive technology.

augmentative d. A tool that helps individuals with limited or absent speech to communicate. Examples include com-



ADDUCTOR PILLOW USE FOLLOWING HIP REPLACEMENT SURGERY

munication boards, pictographs (symbols that look like the things they represent), or ideographs (symbols representing ideas).

bag mask d. SEE: *bag mask device*.

belay d. A mechanism designed to use friction to brake or slow the movement of a rope, to protect a patient, basket, climber, or other rescuer.

cervical immobilization d. ABBR: CID. Any stiff neck brace or collar used to prevent movement of the cervical spine.

charge-coupled d. ABBR: CCD. A device used in video and digital imaging (e.g., in CT scanning) that creates electronic images from light.

electronic infusion d. ABBR: EID. A device for monitoring intravenous infusions. The device may have an alarm in case the flow is restricted because of an occlusion of the line. In that case, the alarm will sound when a preset pressure limit is sensed. The device can also signal that an infusion is close to completion. The pressure is regulated by the height at which the container is positioned above the level of the heart when the patient is lying flat. A height of 36 in (91 cm) provides a pressure of 1.3 lb/sq in (70 mm Hg). Most EIDs are equipped to stop the flow of the infused liquid if accidental free-flow occurs. SEE: *infusion pump*.

esophageal intubation detector d. A syringe that is attached to the endotracheal tube immediately after an intubation attempt. If aspiration is difficult

or stomach contents are withdrawn, or both, the endotracheal (ET) tube may have been placed in the esophagus and needs to be removed and reinserted. If aspiration is easy and free of stomach contents, there is a good chance that the ET tube is located in the trachea; the rescuer should then confirm tube placement by other techniques (e.g., a combination of auscultation, x-ray, and pulse oximetry).

flow-restricted oxygen-powered ventilation d. ABBR: FROPVD. A ventilation device that provides a peak flow rate of 100% oxygen at up to 40 L/min.

Flutter d. SEE: *Flutter device*.

head immobilization d. A device that attaches to a long back board and holds the patient's head in neutral alignment. Also called *cervical immobilization device*. SEE: *back board, long*.

input d. In assistive technology, the apparatus that activates an electronic device. This can be a manual switch, a remote control, or a joystick. SEE: *switch*.

intrauterine contraceptive d. ABBR: IUCD or IUD. A copper or polypropylene artifact that is inserted into the uterine cavity to interfere with conception or implantation. The actual mechanism by which IUDs function is unclear. The estimated pregnancy rate is between 2% and 4%.

Although once manufactured in several different shapes and materials, the incidence of uterine perforation, severe pelvic inflammatory disease, or both led to product liability lawsuits and the discontinuance of many models in the U.S. Three contemporary IUDs are T-shaped. The most commonly used device is the copper T380A, which may remain in place in the uterus for as long as ten years. The levonorgestrel-releasing IUD may remain in place for 5 years, while the progesterone-releasing IUD must be replaced each year. Common clinical criteria for insertion include primiparity or multiparity; a monogamous relationship; and the absence of vaginal, cervical, or pelvic disease. The device is inserted during menstruation or on the first postpartum visit.



Because of the increased risk of sexually transmitted infections, the IUD is contraindicated for women who have multiple sexual partners.

PATIENT CARE: To help prospective users make informed decisions, patient teaching should include discussing the comparative advantages and disadvantages of the method of contraception under consideration. *Advantages:* Little maintenance is required, other than checking for the presence of the string

each week during the first month after insertion and thereafter each month after menses and having an annual routine pelvic examination. Only 10% of users experience spontaneous expulsion of the device during the first year after insertion. Women using hormone-releasing IUDs may experience decreased menstrual flow, or, over time, no menses. **Disadvantages:** Transient cramping or bleeding for a few weeks after insertion is not uncommon; dysmenorrhea, menorrhagia, and/or metrorrhagia also may occur. An increased risk of ectopic pregnancy (10 times more common) may be related to the increased risk of pelvic inflammatory disease. Uterine perforation is rare. Health care professionals should instruct users to promptly inform their health care providers if they experience delayed menses, abnormal vaginal discharge, dyspareunia, abdominal pain, or signs of infection.

An IUD may be inserted into the uterus within 5 days of unprotected intercourse as a means of emergency contraception. **SEE: illus.**

Kendrick extrication d. **SEE: Kendrick extrication device.**

left ventricular assist d. **ABBR: LVAD.** A pump surgically implanted in patients with severe heart failure to move blood from the left ventricle to the ascending aorta. The LVAD usually augments the heart's function until it heals (following a severe myocardial in-

farction) or until a heart transplant becomes available (e.g., for patients with heart failure with a markedly diminished ejection fraction). The LVAD also may be used permanently for a patient who does not meet criteria for transplantation.

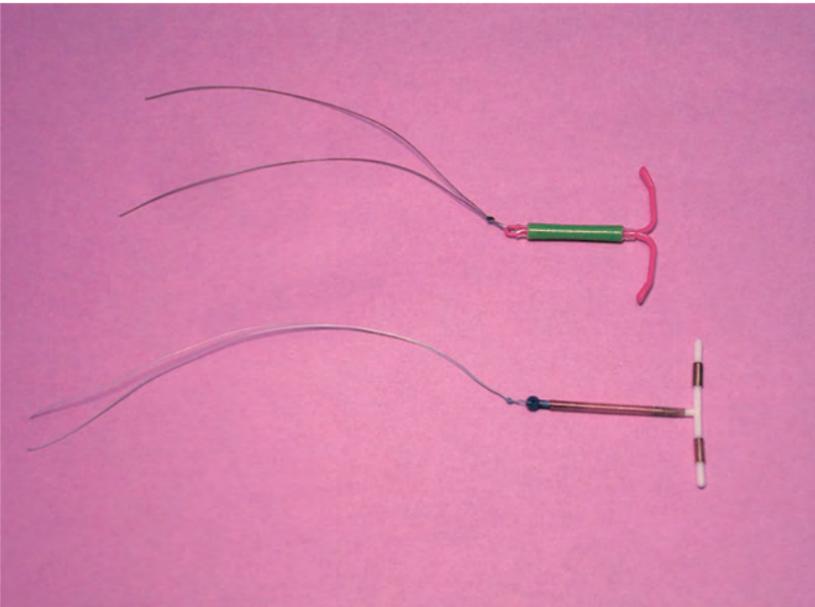
listening d. A speech amplifier that aids hearing-impaired individuals in direct person-to-person communication or telephone conversation. Such devices differ from conventional hearing aids in that they reduce interference from background noises.

medical d. Any health care product intended for use in the diagnosis, treatment, or prevention of disease that is in or on the human body.

needleless d. A device used to inject drugs and fluids that has no exposed sharp surface. It is designed to decrease the risk of needle-stick injuries by health care professionals.

personal flotation d. **ABBR: PFD.** A life vest used to prevent drowning and near drowning. People engaged in water sports, such as boating or water skiing, or rescuers working on or near the water should wear PFDs at all times. The U.S. Coast Guard sets standards and establishes specifications for the manufacture and use of PFDs. Personal flotation devices may be used to provide added buoyancy for the patient during aquatic therapy.

pointing d. A type of input device for sending commands to a computer. Mov-



INTRAUTERINE CONTRACEPTIVE DEVICES

ing the device results in movement of a cursor on the monitor or computer screen. Pointing devices range from the conventional desktop mouse, trackball, and touch-sensitive screens to infrared and ultrasound pointers mounted on the head. SEE: *pointer, light; switch.*

position-indicating d. ABBR: PID. A device used to guide the direction of the x-ray beam during the exposure of dental radiographs. These devices improve and standardize dental radiographic imaging and reduce the patient's risk of radiation exposure.

positive beam limiting d. A collimator that automatically adjusts the size of the radiation field to match the size of the imaging device. Also called *automatic collimator.*

pressure relief d. An air-filled, water-filled, or foam appliance designed to reduce pressure points caused by the patient's body weight when seated or bedridden. Examples include wheelchair cushions and air or water flotation mattresses.

prosthetic terminal d. ABBR: TD. Component of an upper extremity prosthesis that substitutes for the functions of the hand. There are many types of terminal devices, some of which are designed for use with specific tools and implements. These devices have two primary actions: voluntary opening and voluntary closing. SYN: *hook.*

protective d. An external support applied to vulnerable joints or other body parts to guard against injury. Protective devices include helmets, braces, tape or wrapping, and padding.

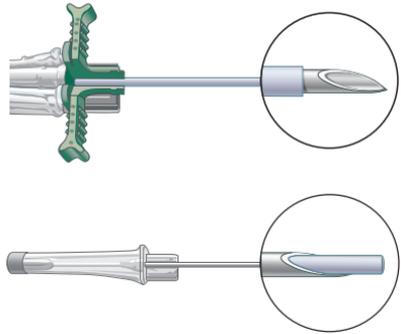
pubovaginal d. An apparatus that is fitted for use in the vagina to help prevent urinary incontinence. SEE: *pesary.*

sequential compression d. ABBR: SCD. A device used to reduce edema or prevent the formation of blood clots in an extremity. A chambered nylon sleeve is progressively inflated from its distal segment to the proximal segment, forcing venous and lymphatic return. Sequential compression devices are inflated with air (pneumatic compression) or, less commonly, chilled water (cryo-compression). SEE: *intermittent compression.*

telecommunication d. for the deaf ABBR: TDD. A device that allows hearing-impaired people to use the telephone even if they cannot comprehend speech. A keyboard and display screen are used.

venous access d. A specially designed catheter for use in gaining and maintaining access to the venous system. This device provides access for patients who require intravenous fluids or medications for several days or more (e.g., those having a bone marrow trans-

plant or who are receiving long-term total parenteral nutrition). SEE: *venous port.* SEE: *illius.*



TYPICAL ACCESS DEVICES

A. An over-the-needle catheter; B. An inside-the-needle catheter.

devil's grip Epidemic pleurodynia.

devitalization (dē-vī'tāl-ī-zā'shūn) [v + vita, life] 1. Destruction or loss of vitality. 2. Anesthetization of the sensitive pulp of a tooth.

dexamethasone (dĕk'sā-mĕth'ă-sōn) A synthetic glucocorticoid drug.

dexamethasone suppression test A test performed by administering dexamethasone to determine the effect on cortisol production. This is done as part of the diagnostic investigation of Cushing's syndrome. Normally this test causes a decrease in cortisol production, but in a patient with Cushing's syndrome, suppression is minimal. The test may be positive in patients with ectopic corticotropin production. SEE: *corticotropin production, ectopic; Cushing's syndrome.*

dexter (dĕks'tĕr) [L.] On the right side. SEE: *sinister.*

dexterity Skill in using the hands, usually requiring both fine and gross motor coordination.

dextrad (dĕks'trād) [L. *dexter*, right, + ad, toward] 1. Toward the right side. 2. A right-handed person.

dextral (dĕks'trāl) Pert. to the right side.

dextrality (dĕks-trāl'ī-tē) Right-handedness. SEE: *sinistrality.*

dextran (dĕks'trān) [L. *dexter*, right] A polysaccharide produced by the action of *Leuconostoc mesenteroides* on sucrose. It is available in various molecular weights and is used as a plasma volume expander.

dextranomer beads A cross-linked network of dextran prepared in the form of beads. Because this compound has great ability to absorb moisture, it has been used in helping to débride wounds.

dextrase (dĕks'trās) An enzyme that splits dextrose and converts it into lactic acid.

dextrin (dĕks'trĭn) [L. *dexter*, right] A carbohydrate that is an intermediate in the breakdown of starch in digestion. Further action by amylases digests dextrin to maltose. It is a carbohydrate of the formula $(C_6H_{10}O_5)_n$ ¹¹

dextro- [L. *dexter*, right] Combining form meaning to the right.

dextroamphetamine sulfate (dĕks'trō-ām-fĕt'ā-mĕn sŭl'fāt) A compound related to amphetamine sulfate (i.e., an isomer of amphetamine); sometimes written D-amphetamine sulfate or dextroamphetamine sulfate. It is used as a central nervous system stimulant in attention deficit hyperactivity disorder and occasionally as a treatment for depression in patients with terminal illnesses. Prolonged use can cause psychological dependence. The "street" name is "speed."

dextrocardia (dĕks'trō-kār'dĕ-ā) [" + Gr. *kardia*, heart] The condition of having the heart on the right side of the body.

dextrocular (dĕks-trōk'ŭ-lār) [" + *oculus*, eye] Having a stronger right eye than left.

dextrorotation (dĕk'strō-dŭk'shŭn) [" + *ducere*, to lead] Movement of the visual axis to the right.

dextrogastric (dĕk'strō-gās'trĕ-ā) [" + Gr. *gaster*, belly] The condition of having the stomach on the right side of the body.

dextromanual (dĕk'strō-mān'ŭ-āl) [" + *manus*, hand] Right-handed.

dextromethorphan (dĕk'strō-mĕth'or-fān) A cough suppressant.

dextropedal (dĕks-trōp'ĕ-dāl) [" + *pes*, *ped-*, foot] Having greater dexterity in using the right leg than the left.

dextroposition (dĕks'trō-pō-zĭsh'ŭn) Displacement to the right.

dextroposition of the great vessels Transposition of the great vessels.

dextrorotatory (dĕks'trō-rō'tā-tor-ĕ) [" + *rotare*, to turn] Causing to turn to the right, applied esp. to substances that turn polarized rays of light to the right.

dextrose (dĕks'trōs) Glucose.

dextrose and sodium chloride injection A sterile solution of dextrose, salt, and water for use intravenously. It contains no antimicrobial agents.

dextrose-nitrogen ratio The ratio of dextrose to nitrogen in urine.

dextrosinistral (dĕks'trō-sĭn'ĭs-trāl) [L. *dexter*, right, + *sinister*, left] From right to left.

dextrosuria (dĕks-trō-sŭ'rĕ-ā) Dextrose in the urine.

dextrotropic, dextrotropous (dĕks'trō-trōp'ĭk, -trōp'ŭs) [" + Gr. *tropos*, a turning] Turning to the right.

dextroversion (dĕk'strō-vĕr'zhŭn) [" + *vertere*, to turn] Turned or located toward the right.

DFA *direct fluorescent antibody.*

DFP *di-isopropyl fluorophosphate.* SEE: *isofluorophate.*

dg *decigram.*

DHEA *Dehydroepiandrosterone.*

DHHS Department of Health and Human Services.

di- [Gr. *dis*, twice] Prefix indicating *twice, double, or two.*

diabetes (dĭ'ā-bĕ'tēz) [Gr. *diabetes*, passing through] A general term for diseases marked by excessive urination, usually diabetes mellitus. SEE: *Nursing Diagnoses Appendix.*

brittle d. Diabetes mellitus that is exceptionally difficult to control. The disease is marked by alternating episodes of hypoglycemia and hyperglycemia. Frequent adjustments of dietary intake and insulin dosage are required.

ETIOLOGY: Diabetes may be brittle when

1. insulin is not well-absorbed;
2. insulin requirements vary rapidly;
3. insulin is improperly prepared or administered;
4. the Somogyi phenomenon is present;
5. the patient has coexisting anorexia or bulimia;
6. the patient's daily exercise routine, diet, or medication schedule varies; or
7. physiological or psychological stress is persistent.

bronze d. Hemochromatosis.

chemical d. 1. Asymptomatic diabetes mellitus, a stage of diabetes mellitus (DM) in which no obvious clinical signs and symptoms of the disease are present, but blood glucose measurements are abnormal. 2. Type 2 DM occurring in an obese child or adolescent. The syndrome is sometimes referred to as "mature onset diabetes of youth" (MODY).

endocrine d. Diabetes mellitus that results from diseases of the pituitary, thyroid, or adrenal glands or from the ovaries.

gestational d. ABBR: GDM. Diabetes mellitus that begins during pregnancy as a result of changes in glucose metabolism and insulin resistance.

According to the American Diabetes Association (ADA), gestational diabetes mellitus affects about 7% of all pregnant women in the U.S. (more than 200,000 women annually). Although gestational diabetes usually subsides after delivery, women with gestational diabetes mellitus have a 45% risk of recurrence with the next pregnancy and a significant risk of developing type 2 diabetes later in life.

DIAGNOSIS: Women at risk for GDM (women over age 25 are overweight at the start of pregnancy, have a previous history of gestational diabetes, a previous infant weighing 9 lb or more at birth, history of a poor pregnancy out-

come, glycosuria, polycystic ovary syndrome, or who are from families or ethnic groups with a high incidence of type 2 DM) should undergo oral glucose tolerance testing as soon as possible to assess blood sugar levels while fasting and after meals. Testing should be repeated at 24 to 28 weeks gestation if the first screening is negative.

TREATMENT: A calorically restricted diet, regular exercise, and metformin or insulin are used to treat GDM.

PATIENT CARE: Blood glucose self-monitoring is essential to management, and patients should be taught to monitor glucose levels four times each day, obtaining a fasting level in the AM, followed by three postprandial levels (1 hr after the start of each meal). Blood glucose levels at 1 hr after beginning a meal are considered the best predictor for subsequent fetal macrosomia. Target blood glucose levels are 90 mg/dl or less (fasting) and 120 to 140 mg/dl postprandially according to newer plasma-referenced meters. The patient and her partner should be instructed that food, stress, inactivity, and hormones elevate blood glucose levels, whereas exercise and insulin lower them. They thus will need to learn about both pharmacologic (measuring and injecting insulin) and nonpharmacologic (menu management and physical activity) interventions to maintain a normal glycemic state (euglycemia) throughout the pregnancy, while ensuring adequate caloric intake for fetal growth and preventing maternal ketosis. Women who have no medical or obstetrical contraindicating factors should be encouraged to participate in an approved exercise program, because physical activity increases insulin receptor sensitivity. Even performing 15 to 20 min of "armchair exercises" daily (while reading or watching television) can help the pregnant woman reduce hyperglycemia without increasing the risk for inducing uterine contractions. If euglycemia is not achieved by nutrition therapy and exercise within 10 days, insulin is started. Pregnant women require three to four times the amount of insulin needed by a woman who is not pregnant. Human minimally antigenic insulin should be prescribed. Often one dose of long-acting insulin at bedtime is sufficient, with rapid-acting insulins, i.e., regular insulin, insulin aspart recombinant (Novolog), or insulin lispro recombinant (Humalog) used to aid optimal glycemic control. Insulin glargine (Lantus), once used for gestational diabetes, is no longer recommended for pregnant women. Because stress can significantly raise blood glucose levels, stress management is a vital part of therapy. The woman's feelings about her pregnancy and diabetes as well as

her support system should be carefully assessed. Coping strategies should be explored; the patient is taught about deep breathing and relaxation exercises and encouraged to engage in activities that she enjoys and finds relaxing. She and her partner should learn to recognize interaction tensions and ways to deal with these to limit stress in their environment.

Maternal complications associated with GDM include pregnancy-induced hypertension, eclampsia, and the need for cesarian delivery.

iatrogenic d. Diabetes mellitus brought on by administration of drugs such as corticosteroids, certain diuretics, or birth control pills.

idiopathic d. Type 1b d. mellitus.

immune-mediated d. mellitus Type 1 diabetes.

d. insipidus ABBR: DI. Excessive urination caused either by inadequate amounts of circulating vasopressin (antidiuretic hormone) in the body (hypothalamic DI) or by failure of the kidney to respond to antidiuretic hormone (nephrogenic DI). Urinary output is often massive (e.g., 5 to 15 L/day), which may result in dehydration in patients who cannot drink enough liquid to replace urinary losses (e.g., those with impaired consciousness). The urine is dilute (specific gravity is often below 1.005), and typically the patient's serum sodium level and osmolality rise as free water is eliminated as urine. If water deficits are not matched or the urinary losses are not prevented, death will result from dehydration.

ETIOLOGY: DI usually results from hypothalamic injury (e.g., brain trauma or neurosurgery) or from the effects of certain drugs (e.g., lithium or demeclocycline) on the renal resorption of water. Other representative causes include sickle cell anemia (in which renal infarcts damage the kidney's ability to retain water), hypothyroidism, adrenal insufficiency, inherited disorders of antidiuretic hormone production, and sarcoidosis.

SYMPTOMS: The primary symptoms are urinary frequency, thirst, and dehydration.

TREATMENT: When DI is a side effect of drug therapy, the offending drug is withheld. DI caused by failure of the posterior pituitary to secrete antidiuretic hormone is treated with synthetic vasopressin.

PATIENT CARE: Fluid balance is monitored. Fluid intake and output, urine specific gravity, and weight are assessed for evidence of dehydration and hypovolemic hypotension. Serum electrolyte and blood urea nitrogen levels are monitored.

The patient is instructed in nasal in-

sufflation of vasopressin (desmopressin acetate, effective for 8 to 20 hr depending on dosage), the oral tablet form useful for bedtime, or administration of subcutaneous or intramuscular vasopressin (effective for 2 to 6 hr). The length of the therapy and the importance of taking medications as prescribed and not discontinuing them without consulting the prescriber are stressed. Hydrochlorothiazide can be prescribed for both forms of DI, and indomethacin and amiloride may be used in the nephrogenic form. Meticulous skin and oral care are provided; use of a soft toothbrush is recommended, and petroleum jelly is applied to the lips and an emollient lotion to the skin to reduce dryness and prevent skin breakdown. Adequate fluid intake should be maintained.

Both the patient and family are taught to identify signs of dehydration and to report signs of severe dehydration and impending hypovolemia. The patient is taught to measure intake and output, to monitor weight daily, and to use a hydrometer to measure urine specific gravity. Weight gain should be reported because this may signify that medication dosage is too high (recurrence of polyuria may indicate dosing that is too low). The patient should wear or carry a medical identification tag and prescribed medication with him or her at all times. Both patient and family need to know that chronic DI will not shorten the life span, but lifelong medications may be required to control the signs, symptoms, and complications of the disease. Counseling may be helpful in dealing with this chronic illness.

insulin-dependent d. mellitus ABBR: IDDM. Type 1 diabetes.

juvenile-onset d. Type 1 diabetes.

latent d. Diabetes mellitus that manifests itself during times of stress such as pregnancy, infectious disease, weight gain, or trauma. Previous to the stress, no clinical or laboratory findings of diabetes are present. There is a very strong chance that affected people will eventually develop overt type 2 diabetes mellitus.

latent autoimmune d. in adults ABBR: LADA. A form of type 1 diabetes usually diagnosed after 30 years of age, in which there are serum antibodies against insulin, pancreatic islet cells, or the protein products of those cells. Most patients affected by LADA eventually require insulin therapy, similar to patients with type 1 DM.

TREATMENT: People with LADA usually require insulin rather than oral medications to control their blood glucose levels.

mature-onset d. of youth ABBR: MODY. Type 2 DM that presents dur-

ing childhood or adolescence, typically as an autosomal dominant trait in which there is diminished but not absent insulin production by the pancreas. Children with this form of diabetes mellitus are not prone to diabetic ketoacidosis.

d. mellitus ABBR: DM. A chronic metabolic disorder marked by hyperglycemia. Diabetes mellitus (DM) results either from failure of the pancreas to produce insulin (type 1 DM) or from insulin resistance, with inadequate insulin secretion to sustain normal metabolism (type 2 DM). Either type of DM may damage blood vessels, nerves, kidneys, the retina, and in pregnancy, the developing fetus, and the placenta. Type 1, or insulin-dependent, DM has a prevalence of just 0.3% to 0.4%. Type 2 DM (previously known as "adult-onset" DM) has a prevalence in the general population of 6.6%. In some populations (e.g., elderly persons, Native Americans, blacks, Pacific Islanders, Mexican Americans), it is present in nearly 20% of adults. Type 2 DM primarily affects obese middle-aged people with sedentary lifestyles, whereas type 1 DM (formerly called "juvenile-onset" DM) occurs usually in children, most of whom are active and thin, although extremely obese children are now being diagnosed with Type 2 diabetes as well. SEE: table; *dawn phenomenon*; *insulin*; *insulin pump*; *insulin resistance*; *diabetic polyneuropathy*; *Somogyi phenomenon*.

Type 1 DM usually presents as an acute illness with dehydration and often diabetic ketoacidosis. Type 2 DM is often asymptomatic in its early years and therefore occult. The American Diabetes Association (1-800-DIABETES) estimates that more than 5 million Americans have type 2 DM without knowing it.

ETIOLOGY: Type 1 DM is caused by autoimmune destruction of the insulin-secreting beta cells of the pancreas. The loss of these cells results in nearly complete insulin deficiency; without exogenous insulin, type 1 DM is rapidly fatal. Type 2 DM results partly from a decreased sensitivity of muscle cells to insulin-mediated glucose uptake and partly from a relative decrease in pancreatic insulin secretion.

SYMPTOMS: Classic symptoms of DM are polyuria, polydipsia, and weight loss. In addition, patients with hyperglycemia often have blurred vision, increased food consumption (polyphagia), and generalized weakness. When a patient with type 1 DM loses metabolic control (e.g., during infections or periods of noncompliance with therapy), symptoms of diabetic ketoacidosis occur. These may include nausea, vomiting, dizziness on arising, intoxication, delir-

Comparison of Diabetic Ketoacidosis and Hypoglycemia

	Diabetic Ketoacidosis	Hypoglycemia
Onset	Gradual	Often sudden
History	Often acute infection in a diabetic or insufficient insulin intake	Recent insulin injection, inadequate meal, or excessive exercise after insulin
	Previous history of diabetes may be absent	
Musculoskeletal	Muscle wasting or weight loss	Weakness Tremor Muscle twitching
Gastrointestinal	Abdominal pains or cramps, sometimes acute Nausea and vomiting	Nausea and vomiting
Central nervous system	Headache Double or blurred vision Irritability	Confusion, delirium, or seizures
Cardiovascular	Tachycardia Orthostatic hypotension	Variable
Skin	Flushed, dry	Diaphoretic, pale
Respiratory	Air hunger Acetone odor of breath Dyspnea	Variable Increased respiratory rate
Laboratory values	Elevated blood glucose (>200 mg/dl) Glucose and ketones in blood and urine	Subnormal blood glucose (0–50 mg/dl) Absence of glucose and ketones in urine unless bladder is full

ium, coma, or death. Chronic complications of hyperglycemia include retinopathy and blindness, peripheral and autonomic neuropathies, glomerulosclerosis of the kidneys (with proteinuria, nephrotic syndrome, or end-stage renal failure), coronary and peripheral vascular disease, and reduced resistance to infections. Patients with DM often also sustain infected ulcerations of the feet, which may result in osteomyelitis and the need for amputation.

DIAGNOSIS: Several tests are helpful in identifying diabetes mellitus. These include tests of fasting plasma glucose levels, casual (randomly assessed) glucose levels, or glycosylated hemoglobin levels. Diabetes is currently established if patients have classic diabetic symptoms and if on two occasions fasting glucose levels exceed 126 mg/dl (>7 mmol/L), random glucose levels exceed 200 mg/dl (11.1 mmol/L), or a 2-hour oral glucose tolerance test is 200 mg/dl or more. A hemoglobin A1c test that is more than two standard deviations above normal is also suggestive of the disease and should be confirmed with either an elevated fasting or casual glucose level.

TREATMENT: DM types 1 and 2 are

both treated with specialized diets, regular exercise, intensive foot and eye care, and medications.

Patients with type 1 DM, unless they have had a pancreatic transplant, require insulin to live; intensive therapy with insulin to limit hyperglycemia ("tight control") is more effective than conventional therapy in preventing the progression of serious microvascular complications such as kidney and retinal diseases. Intensive therapy consists of three or more doses of insulin injected or administered by infusion pump daily, with frequent self-monitoring of blood glucose levels as well as frequent changes in therapy as a result of contacts with health care professionals. Some negative aspects of intensive therapy include a three times more frequent occurrence of severe hypoglycemia, weight gain, and an adverse effect on serum lipid levels (i.e., a rise in total cholesterol, LDL cholesterol, and triglycerides and a fall in HDL cholesterol). Participation in an intensive therapy program requires a motivated patient, but it can dramatically reduce eye, nerve, and renal complications compared to conventional therapy. SEE: *insulin pump* for illus.

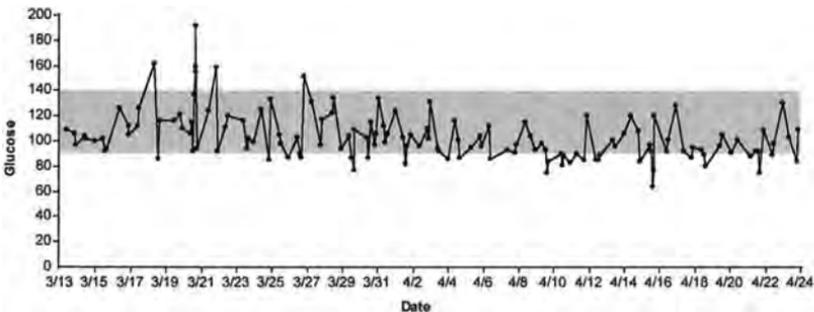
Some patients with type 2 DM can control their disease with a calorically restricted diet (e.g., 1600 to 1800 cal/day), regular aerobic exercise, and weight loss. Most patients, however, require the addition of some form of oral hypoglycemic drug or insulin. Oral agents to control DM include sulfonylurea drugs (e.g., tolazamide, tolbutamide, glyburide, or glipizide), which typically increase pancreatic secretion of insulin; biguanides or thiazolidinediones (e.g., metformin or pioglitazone), which increase cellular sensitivity to insulin; or α -glucosidase inhibitors (e.g., acarbose), which decrease the absorption of carbohydrates from the gastrointestinal tract. Both types of diabetics also may be prescribed pramlintide (Symlin), a synthetic analog of human amylin, a hormone manufactured in the pancreatic beta cells. It enhances postprandial glucose control by slowing gastric emptying, decreasing postprandial glucagon concentrations, and regulating appetite and food intake; thus pramlintide is helpful for patients who don't achieve optimal glucose control with insulin and/or oral antidiabetic agents. When combinations of these agents fail to normalize blood glucose levels, insulin injections are added. Tight glucose control can reduce the patient's risk of many of the complications of the disease. **SEE: illus.**

PREVENTION OF COMPLICATIONS: Patients with DM should avoid using tobacco products, actively manage their serum lipid levels, and keep hypertension under optimal control: failure to do so may result in a risk of atherosclerosis much higher than that of the general public. Other elements in good diabetic care include receiving regular vaccinations (e.g., to prevent influenza and pneumococcal pneumonia).

PROGNOSIS: Diabetes is a chronic

disease whose symptoms can be ameliorated and life prolonged by proper therapy. The isolation and eventual production of insulin in 1922 by Canadian physicians F. G. Banting and C. H. Best made it possible to allow people with the disease to lead a normal life.

PATIENT CARE: The diabetic patient should learn to recognize symptoms of low blood sugar (e.g., confusion, sweats, and palpitations) as well as those of high blood sugar (e.g., polyuria and polydipsia). When either condition results in hospitalization, vital signs, weight, fluid intake, urine output, and caloric intake are accurately documented. Serum glucose and urine ketone levels are evaluated. Chronic management of DM is also based on periodic measurement of glycosylated hemoglobin levels (HbA1c). Elevated levels of HbA1c suggest poor long-term glucose control. The effects of diabetes on other body systems (e.g., cerebrovascular, coronary artery, and peripheral vascular) should be regularly assessed. Patients should be evaluated regularly for retinal disease and visual impairment and peripheral and autonomic nervous system abnormalities (e.g., loss of sensation in the feet). The patient is observed for signs and symptoms of diabetic neuropathy (e.g., numbness or pain in the hands and feet, decreased vibratory sense, foot-drop, and neurogenic bladder). The urine is checked for microalbumin or overt protein losses, an early indication of nephropathy. The combination of peripheral neuropathy and peripheral arterial disease results in changes in the skin and microvasculature that lead to ulcer formation on the feet and lower legs with poor healing. Approx. 45,000 lower-extremity diabetic amputations are performed in the U.S. each year. Many amputees will have a second amputation within five years. Most of these



WELL-CONTROLLED DIABETES MELLITUS

Daily blood sugar abstracted from the records of a patient whose DM is well controlled (hemoglobin a1c=6.4) The average capillary blood glucose is 104 mg/dl, and the standard deviation is 19. Sixty-five percent of the readings are between 90 and 140 mg/dl; the lowest blood sugar is 67 mg/dl (on April 15) and the highest is about 190 (on March 21).

amputations could be prevented by regular foot care and examination. Diabetic patients and their providers should look for changes in sensation to touch and vibration, the integrity of pulses, capillary refill, and the skin. All injuries, cuts, and blisters should be treated promptly. The patient should avoid constricting hose, slippers, shoes, and bed linens or walking barefoot. The patient with ulcerated or insensitive feet is referred to a podiatrist for ongoing foot care and is warned that decreased sensation can mask injuries.

Home blood glucose self-monitoring is indispensable in helping patients to adjust daily insulin doses according to test results and in achieving optimal long-term control of diabetes. Insulin or other hypoglycemic agents are administered as prescribed and their action and use explained. With help from a dietitian, a diet is planned based on the recommended amount of calories, protein, carbohydrates, and fats. The amount of carbohydrates consumed is a dietary key to managing glycemic control in diabetes. For most men, 60 to 75 carbohydrate grams per meal is a reasonable intake; for most women, 45 to 60 grams is appropriate. Saturated fats should be limited to less than 7% of total caloric intake, and trans-fatty acids (unsaturated fats with hydrogen added) minimized. A steady, consistent level of daily exercise is prescribed, and participation in a supervised exercise program is recommended.

Hypoglycemic reactions are promptly treated by giving carbohydrates (orange juice, hard candy, honey, or any sugary food); as necessary, subcutaneous or intramuscular glucagon or intravenous dextrose (if the patient is not conscious) is administered. Hyperglycemic crises are treated initially with prescribed intravenous fluids and insulin, and later with potassium replacement based on laboratory values.

Regular ophthalmological examinations are recommended for early detection of diabetic retinopathy. The patient is educated about diabetes, its possible complications and their management, and the importance of adherence to the prescribed therapy. The patient is taught the importance of maintaining normal blood pressure levels (120/80 mm Hg or lower). Control of even mild-to-moderate hypertension results in fewer diabetic complications (esp. nephropathy, cerebrovascular disease, and cardiovascular disease). Limiting alcohol intake to approximately one drink daily and avoiding all tobacco products are also important for self-management. Emotional support and a realistic assessment of the patient's condition are offered; this assessment should stress that, with proper

treatment, the patient can have a near-normal lifestyle and life expectancy. Long-term goals for a patient with diabetes should include

1. achieving and maintaining optimal metabolic outcomes to prevent complications;
 2. modifying nutrient intake and lifestyle to prevent and treat obesity, dyslipidemia, cardiovascular disease, hypertension, and nephropathy;
 3. improving health through food choices and physical activity; and
 4. allowing for the patient's nutritional and psychosocial needs and preferences.
- Assistance is offered to help the patient to develop positive coping strategies. Unfortunately, the prevalence of diagnosed diabetes in U.S. adults increased from 6.7 million in 1990 to 13.8 million in 2003. By 2030, 23 million Americans will be diabetic. The increasing prevalence of obesity coincides with the increasing incidence of diabetes; approximately 45% of those diagnosed receive optimal care according to established guidelines. According to the CDC, the NIH, and the ADA, about 40% of Americans between ages 40 and 74 have "pre-diabetes," putting them at increased risk for type 2 diabetes and cardiovascular disease. Lifestyle changes with a focus on decreasing obesity can prevent or delay the onset of diabetes in 58% of this population. The patient and family should be referred to local and national support and information groups and may require psychological counseling. SEE: *Nursing Diagnoses Appendix*.

non-insulin-dependent d. mellitus
 ABBR: NIDDM. Type 2 d. SEE: *type 1 d.* for table.

pancreatic d. Diabetes associated with disease of the pancreas, such as chronic or recurrent pancreatitis.

phlorhizin d. Glycosuria caused by administration of phlorhizin.

renal d. Renal glycosuria, marked by a low renal threshold for glucose. Glucose tolerance is normal and diabetic symptoms are lacking.

secondary d. mellitus DM that results from damage to the pancreas (e.g., after frequent episodes of pancreatitis), or from drugs such as corticosteroids (which increase resistance to the effects of insulin).

strict control of d. Regulation of blood sugars to normal or nearly normal levels, both before and after meals. Tight control of blood sugars has been shown to improve the survival of patients in intensive-care units and to prevent long-term complications of DM (e.g., blindness, nerve damage, and kidney failure).

Patients with meticulously controlled DM typically have a hemoglobin A1c level of 6.5 to 7.0 or lower, fasting blood

sugars that are less than 110 mg/dl, and after-meal blood sugar readings that are 140 mg/dl or less. Strategies to attain these levels include paying careful attention to dietary regimens, exercising regularly, and monitoring blood sugars, oral medications, and insulin doses frequently throughout the day. SYN: *tight control of diabetes*.

tight control of d. Strict control of d.

true d. Diabetes mellitus.

type 1 d. Diabetes mellitus that usually has its onset before the age of 25 years, in which the essential abnormality is related to absolute insulin deficiency. SYN: *juvenile-onset diabetes*. SEE: table.

type 1a d. mellitus The most common form of type 1 diabetes mellitus (DM). It is caused by autoimmune destruction of the beta cells of the pancreas and inadequate insulin production. In type 1a DM, antibodies against insulin, islet cells of the pancreas, or glutamic acid decarboxylase is often present in the blood. The patient is prone to develop diabetic ketoacidosis if he or she is not treated with insulin.

type 1b d. mellitus A relatively less common form of type 1 DM (seen in only about 10% of type 1 diabetics) in which autoimmune antibodies against insulin, pancreatic beta cells, or their protein products are not found in the blood. Beta cells are nonetheless destroyed (by unknown means), and the patient develops hyperglycemia or ketoacidosis unless he or she receives insulin. SYN: *idiopathic diabetes*.

type 2 d. A type of diabetes mellitus that occurs predominantly in adults. The insulin produced is sufficient to prevent ketoacidosis but insufficient to meet the total needs of the body. This

type of diabetes in nonobese patients can usually be controlled by diet and oral hypoglycemic agents (e.g., sulfonylurea drugs or metformin, a nonsulfonylurea drug). Occasionally insulin therapy is required. In some patients the condition can be controlled by careful diet and regular exercise. SYN: *non-insulin-dependent diabetes mellitus*. SEE: *type 1 diabetes* for table.

diabetes educator A health care professional who instructs patients with diabetes mellitus in the skills they need to manage their blood sugar levels safely and effectively and thus to avoid both the short- and long-term complications of the disease.

diabetic (di-ă-bĕt'ik) **1.** Pert. to or affected by diabetes. **2.** Permissible or fit for patients with diabetes. **3.** A person with diabetes.

diabetic ear "Malignant" otitis media often caused by infection with *Pseudomonas aeruginosa*. SEE: *otitis media*.

diabetic foot care Daily inspection and cleaning of the feet of an individual with diabetes to prevent complications.

diabetic glucose tolerance ABBR: DGT. In an oral glucose tolerance test, having a blood glucose concentration equal to or greater than 200 mg/dl (11.1 mmol/L) two hours after the consumption of 75 g of glucose.

diabetic ketoacidosis Acidosis caused by an accumulation of ketone bodies, in advanced stages of uncontrolled diabetes mellitus. SEE: *diabetic coma*; *Nursing Diagnoses Appendix*.

diabetic osteopathy The destruction of the joints or the loss of bony matrix in the feet of patients with diabetic nerve damage.

diabetogenic (di'ă-bĕt'ō-jĕn'ik) [" + *gennan*, to produce] Causing diabetes.

Comparison of Type 1 (Insulin-Dependent) Diabetes Mellitus and Type 2 (Non-Insulin-Dependent) Diabetes Mellitus

	Type 1	Type 2
Age at onset	Usually under 30	Usually over 40
Symptom onset	Abrupt	Gradual
Body weight	Normal	Obese—80%
HLA association	Positive	Negative
Family history	Common	Nearly universal
Insulin in blood	Little to none	Some usually present
Islet cell antibodies	Present at onset	Absent
Prevalence	0.2%–0.3%	6%
Symptoms	Polyuria, polydipsia, polyphagia, weight loss, ketoacidosis	Polyuria, polydipsia, peripheral neuropathy
Control	Insulin, diet, and exercise	Diet, exercise, and often oral hypoglycemic drugs or insulin
Vascular and neural changes	Eventually develop	Will usually develop
Stability of condition	Fluctuates, may be difficult to control	May be difficult to control in poorly motivated patients

diabetogenous (dī'ā-bē-tōj'ēn-ūs) Caused by diabetes.

diacetate (dī-ās'ē-tāt) A salt of diacetic acid.

diacetemia (dī-ās'ē-tē'mē-ā) The presence of diacetic acid in the blood.

diacetic acid (dī'ā-sēt'ik) Acetoacetic acid, found in acidosis and in the urine of diabetic persons. Like acetone, it is found in uncontrolled diabetes and in any condition that produces starvation and excessive fat metabolism, such as persistent vomiting.

diacetoxyscirpenol (dī'ā-sē-tōks'ē-sēr'pē-nōl) ABBR: DAS. A deadly toxin derived from *Fusarium* species. DAS may grow on and contaminate cereals and other stored crops and can be toxic to fungi, plants, and animals (including humans). It has been used in the past in chemotherapy and can be used as an agent of biological or chemical warfare.

diacetylmorphine (dī'ā-sē'til-mor'fēn) Heroin.

diacidic (dī-ās'īd-ik) [Gr. *dis*, twice, + *L. acidus*, soured] Containing two acidic hydrogen ions.

diacclasis (dī-ā-klā'sīs) [Gr. *dia*, through, + *klan*, to break] Osteoclasia.

diacrinous (dī-āk'rīn-ūs) [Gr. *diakrinein*, to separate] Pert. to cells that secrete into ducts rather than into the vascular system. SYN: *exocrine*.

diadochokinesia (dī-ād'ō-kō-kīn-ē'zē-ā) [Gr. *diadokhos*, succeeding, + *kinesis*, movement] The ability to make antagonistic movements, such as pronation and supination of the hands, in quick succession. SEE: *disdiadochokinesia*.

diagnose (dī'āg-nōs) [Gr. *diagnoskein*, to discern] To determine the cause and nature of a pathological condition; to recognize a disease.

diagnosis (dī'āg-nō'sīs) *pl.* **diagnoses**
1. The term denoting the disease or syndrome a person has or is believed to have. **2.** The use of scientific or clinical methods to establish the cause and nature of a person's illness or injury and the subsequent functional impairment caused by the pathology. The diagnosis forms the basis for patient care.

antenatal d. Prenatal d.

clinical d. Identification of a disease by history, physical examination, laboratory studies, and radiological studies.

cytological d. Identification of a disease based on cells present in body tissues or exudates.

differential d. Identification of a disease by comparison of illnesses that share features of the presenting illness, but differ in some critical ways.

dual d. The presence of mental illness in a patient with a history of concurrent substance abuse.

d. by exclusion Identification of a disease by eliminating other implausible diagnoses.

medical d. The identification of the cause of the patient's illness or discomfort. SYN: *clinical diagnosis*.

nursing d. SEE: *nursing diagnosis*.

oral d. The procedure or special area of dentistry devoted to the compilation and study of the patient's dental history, and a detailed clinical examination of the oral tissues and radiographs to assess the level of oral health, with the object of developing a treatment plan to restore tooth structure and proper occlusion and to promote healing and better oral health.

pathological d. Determining the cause(s) of an illness or disease by examining fluids and tissues from the patient before or after death. The examination may be performed on blood, plasma, microscopic tissue samples, or gross specimens. SEE: *autopsy; pathology*.

physical d. Identification of an illness or abnormality by looking at, listening to, percussing, or palpating the patient. In contemporary health care, amid much controversy diagnostic imaging (e.g., ultrasound, nuclear medicine, CT and MRI scans) has replaced many traditional physical diagnostic skills.

physical therapist d. **1.** The clinical classification by a physical therapist of a patient's impairments, functional limitations, and disabilities. **2.** The use of data obtained by physical therapy examination and other relevant information to determine the cause and nature of a patient's impairments, functional limitations, and disabilities.

preimplantation genetic d. In assisted reproduction, the testing of a fertilized egg for heritable illnesses before the ovum is inserted into the female.

prenatal d. Identification of disease or congenital defects of the fetus during gestation. A growing number of pathological conditions can be diagnosed by analyses of maternal blood and such tests as chorionic villi sampling, ultrasound, embryoscopy, amniocentesis, and fetoscopy. Thus, the gender, inherited characteristics, and current status of the fetus can be identified as early as the first trimester, helping parents in their decision-making if findings indicate an incurable disorder. Mid-trimester and last trimester tests provide information regarding the physical characteristics of the fetus and placenta, and analysis of amniotic fluid allows estimation of fetal age and maturity and may improve intrauterine management of treatable disorders. SEE: *prenatal surgery*.

primary d. Diagnosis of the most important disease process or the underlying disease process afflicting a patient.

radiographic d. Identification of an

illness by the interpretation of radiographic findings.

serological d. Identification of an illness through a serological test such as that for syphilis or typhoid.

diagnosis-related group ABBR: DRG. An indexing or classification system designed to standardize prospective payment for medical care. Diseases and conditions are assigned to a single DRG when they are felt to share similar clinical and health care utilization features. The reimbursement for treating all individuals within the same DRG is the same, regardless of actual cost to the health care facility. SEE: table.

diagnostic Pert. to a diagnosis.

in vitro d. ABBR: IVD. 1. Any device, reagent, material, or system designed for use in the laboratory diag-

nosis of disease or health status. The term also refers to a general category of entities that are highly and specifically regulated by the U.S. Food and Drug Administration and other regulatory bodies. 2. The laboratory analysis of body substances (e.g., blood, saliva, stool, or urine) for specific analytes indicative of disease.

Diagnostic and Statistical Manual of Mental Disorders (Fourth Edition) ABBR: DSM-IV. The standard nomenclature of emotional illness used by all health care practitioners. DSM-IV, published by the American Psychiatric Association, was introduced in 1994.

diagnostician (dī'äg-nös-tīsh'ün) [Gr. *diagignoskein*, to discern] One skilled in diagnosis.

diakinesis (dī'ä-kī-nē'sis) [Gr. *dia*,

Top Diagnosis-Related Groups (DRGs) in the U.S.

DRG Numerical Designation	Diagnosis
371, 372, 373, 374, 388, 389, 390, 391	Childbirth with or without operative obstetrics; with or without complications
359	Uterine and adnexal procedures for nonmalignant diseases
430	Psychoses
498, 500, 243	Spinal fusion and other back and neck procedures; medical back pain
143, 125, 112	Chest pain; circulatory disorders other than acute myocardial infarction with cardiac catheterization
116	Permanent pacemaker placement or percutaneous transluminal coronary angioplasty with coronary artery stent
182, 183	Esophagitis, gastritis, and miscellaneous digestive disorders
89, 91	Simple pneumonia and pleurisy
494	Laparoscopic cholecystectomy
127, 87	Heart failure and shock; pulmonary edema
294	Diabetes mellitus
106	Coronary bypass graft surgery with cardiac catheterization
209	Major joint and limb reattachment procedures (esp. hip and knee replacement)
25	Seizures and headache
462	Rehabilitation
14	Specific cerebrovascular disorders, excluding transient ischemic attack
79, 97, 98	Complicated respiratory infections; bronchitis and asthma
174	Gastrointestinal hemorrhage
167	Appendectomy
148	Major small and large bowel procedures
483	Tracheostomy
475	Respiratory system diagnosis with ventilator support
416	Septicemia
320	Kidney and urinary tract infections
297	Nutritional and miscellaneous metabolic disorders
128	Deep vein thrombosis
130	Peripheral vascular disorders
277	Cellulitis
294	Renal failure
489	HIV disease with major related conditions

through, + *kinesis*, motion] The stage in the first prophase of meiosis, during which the homologous chromosomes shorten and thicken and the nuclear membrane disappears.

dial (dī'āl) [L. *dialis*, daily, fr. *dies*, day] A graduated circular face, similar to a clock face, on which some measurement is indicated by a pointer that moves as the entity being measured (pressure, temperature, or heat) changes.

astigmatic d. A circular dial with black lines of uniform width drawn as if they were connecting opposing numbers on the face of a clock. It is used in testing for astigmatism.

dialectical behavior therapy A form of psychological counseling in which patients are directed to change dysfunctional behavior patterns within a context of acceptance and compassion. It is used principally to manage personality disorders.

dial pack A circular medication packaging design that requires the user to access a dose of medication by turning its packaging to a numbered or lettered notch. This form of packaging is often used to dispense oral contraceptive pills, which must be taken on specific days of the month to be effective.

dialy- [Gr. *dia*, through, + *lysis*, dissolution] Prefix denoting *separation*.

dialysance (dī'ā-lī'sāns) In renal dialysis, the minute rate of net exchange of a substance between blood and dialysis fluid per unit of blood-bath concentration gradient.

dialysate (dī-āl'ī-sāt) **1.** A liquid that has been dialyzed. **2.** In renal failure, the fluid used to remove or deliver compounds or electrolytes that the failing kidney cannot excrete or retain in the proper concentrations.

dialysis (dī-āl'ī-sis) [Gr. *dia*, through, + *lysis*, dissolution] **1.** The passage of a solute through a membrane. **2.** The process of diffusing blood across a semipermeable membrane to remove toxic materials and to maintain fluid, electrolyte, and acid-base balance in cases of impaired kidney function or absence of the kidneys. SEE: *hemodialysis*; *Nursing Diagnoses Appendix*.

chronic ambulatory peritoneal d. Continuous ambulatory peritoneal d.

continuous ambulatory peritoneal d. ABBR: CAPD. Dialysis in which fluid is infused into the peritoneum through an implanted catheter and then drained from the body after absorbing metabolic toxins. The peritoneal lining serves as the dialytic membrane. CAPD is an alternative to hemodialysis for patients with end-stage renal disease. It removes fluids, electrolytes, and nitrogen-containing wastes by osmosis but is less efficient than hemodialysis. Scrupulous antiseptic technique is needed to avoid

introducing infectious microorganisms into the dialysate and peritoneum. Nonetheless, the technique has several benefits: it can be performed at home by patients (increasing their autonomy); it avoids the hypotension sometimes associated with hemodialysis; and it is better tolerated than hemodialysis because it is less likely to produce rapid shifts in the concentration of urea, electrolytes, and other solutes in the bloodstream. SYN: *chronic ambulatory peritoneal dialysis*. SEE: *peritoneal dialysis*.

continuous cyclic peritoneal d. ABBR: CCPD. Dialysis performed every night with fluid remaining in the peritoneal cavity until the next night.

d. dose The percentage by which blood urea nitrogen (BUN) is reduced during renal dialysis. Inadequate BUN reductions have been linked to increases in patient care costs, hospitalizations, and increased risk of death in patients with chronic renal failure. SEE: *blood urea nitrogen*.

intermittent peritoneal d. ABBR: IPD. Dialysis using automated equipment, often performed overnight. The fluid is drained from the peritoneal cavity at the end of the treatment.

peritoneal d. Dialysis in which the lining of the peritoneal cavity is used as the dialyzing membrane, requiring less complex equipment and less specialized personnel than hemodialysis, little or no heparin, no blood loss, and minimal cardiovascular stress. Dialyzing fluid introduced into the peritoneal cavity is left to dwell there for a specified time and then passively drained.

Peritoneal dialysis is used to treat renal failure and, less commonly, certain types of poisoning, hypothermia, or heatstroke. SEE: *Nursing Diagnoses Appendix*.



Although peritoneal dialysis may be performed anywhere by the patient, allowing him or her to be independent, regular follow-up with health care professionals is needed to optimize its safety and effectiveness.

PATIENT CARE: Strict aseptic technique is maintained throughout the procedure. The patient is observed for signs of peritonitis, pain, respiratory difficulty, and low blood pressure. Peritoneal dialysis requires a semipermanent implantation of a catheter through the abdominal wall into the peritoneum, just below the umbilicus. The patient's understanding of the procedure and its rationale, care of the peritoneal catheter, and symptoms of infection are verified. Medication schedule can be changed before and after dialysis. Urea clearance is less than with hemodialysis

(60%), and excessive protein loss may necessitate a high protein diet. The patient's ability to adjust lifestyle to provide a balance of adequate rest and activity is evaluated.

renal d. Hemodialysis.

dialysis acidosis Metabolic acidosis due to prolonged hemodialysis in which the pH of the dialysis bath has been inadvertently reduced by the action of contaminating bacteria.

dialysis disequilibrium A disturbance in which nausea, vomiting, drowsiness, headache, and seizures occur shortly after the patient begins hemodialysis or peritoneal dialysis. The cause is related to the rapid correction of metabolic abnormalities in the uremic patient. SYN: *disequilibrium syndrome*.

dialysis technician A technician who operates and maintains an artificial kidney machine following approved methods to provide dialysis treatment for patients with chronic kidney disease.

dialytic (dī'ā-lit'ik) Belonging to or resembling the process of dialysis.

dialyzable (dī'ā-līz'ā-b'l) Capable of receiving dialysis.

dialyze (dī'ā-līz) To perform a dialysis or to undergo one.

dialyzer (dī'ā-līz'ēr) [Gr. *dia*, through, + *lysis*, dissolution] The apparatus used in performing dialysis.

diameter (dī-ām'ē-tēr) [' + *metron*, a measure] The distance from any point on the periphery of a surface, body, or space to the opposite point.

anteroposterior d. of pelvic cavity The distance between the middle of the symphysis pubis and the upper border of the third sacral vertebra (about 13.5 cm in women).

anteroposterior d. of pelvic inlet The distance from the posterior surface of the symphysis pubis to the promontory of the sacrum (about 11 cm in women). SYN: *conjugata vera*; *true conjugate diameter of pelvic inlet*.

anteroposterior d. of pelvic outlet The distance between the tip of the coccyx and the lower edge of the symphysis pubis.

bipgonial d. The distance between the two gonia. The gonion is the anthropometric point at the most inferior, posterior, and lateral points on the angle of the mandible.

biparietal d. The transverse distance between the parietal eminences on each side of the head (about 9.25 cm).

bizygomatic d. The greatest transverse distance between the most prominent points of the zygomatic arches.

buccolingual d. The measurement of a tooth from the buccal to the lingual surface.

cervicobregmatic d. The distance between the anterior fontanel and the

junction of the neck with the floor of the mouth.

conjugate d. Conjugate (2).

diagonal conjugate d. of pelvis The distance from the upper part of the symphysis pubis to the most distant part of the brim of the pelvis.

external conjugate d. The anteroposterior diameter of the pelvic inlet measured externally; the distance from the skin over the upper part of the symphysis pubis to the skin over a point corresponding to the sacral promontory.

frontometal d. The distance from the top of the forehead to the point of the chin.

interspinous d. The distance between the two anterior superior spines of the ilia.

intertuberous d. The distance between the ischial tuberosities. Most commonly, this measure of the female pelvic outlet is greater than 9 cm, allowing the exit of an average-sized term fetus.

labiolingual d. The measurement of an anterior tooth from the labial to the lingual surface.

mentobregmatic d. The distance from the chin to the middle of the anterior fontanel.

mesiodistal d. The measurement of a tooth from the ventral or mesial surface to the distal or dorsal surface.

obstetrical d. of pelvic inlet The shortest distance between the sacrum and the symphysis pubis. This diameter is shorter than the true conjugate. SYN: *obstetrical conjugate*.

occipitofrontal d. The distance from the posterior fontanel to the root of the nose.

occipitometal d. The greatest distance between the most prominent portion of the occiput and the point of the chin (about 13.5 cm).

d. of pelvis Any diameter of the pelvis found by measuring a straight line between any two points. *Anteroposterior*: the distance between the sacrovertebral angle and the symphysis pubis. *Bi-ischial*: the distance between the ischial spines. *Conjugata diagonalis*: the distance between the sacrovertebral angle and the symphysis pubis. *Conjugata vera*: the true conjugate between the sacrovertebral angle and the middle of the posterior aspect of the symphysis pubis (about 1.5 cm less than the diagonal conjugate). *Intercristal*: the distance between the crests of the ilia. *Interspinous*: the distance between the spines of the ilium. *Intertrochanteric*: the distance between the greater trochanters when the hips are extended and the legs are held together. *Obstetrical conjugate*: the distance between the promontory of the sacrum and the

upper edge of the symphysis pubis. SEE: *pelvis*.

true conjugate d. of pelvic inlet

Anteroposterior diameter of pelvic inlet.

diamid(e) (dī-ām'īd, -īd) [L. *di*, two, + *amide*] A compound that contains two amine groups. The term is sometimes used incorrectly to indicate a diamine or hydrazine.

diamidine (dī-ām'ī-dēn) Any chemical compound that contains two amidine, C(NH)NH₂, groups.

diamine (dī-ām'in, -ēn) A chemical compound with two amino, —NH₂, groups.

diaminobenzidine (dī'ā-mēn'ō-bēn'zī-dēn') ABBR: DAB. A chromogen, C₁₂H₁₄N₄, used in immunocytochemistry to highlight peroxidase.

diaminuria (dī-ām'ī-nū'rē-ā) Presence of diamines in the urine.

diapause (dī'ā-pawz) [Gr. *dia*, through, + *pausis*, pause] The state of metabolic inactivity that some plants, seeds, eggs, and insect forms assume to survive adverse conditions such as winter.

diapedesis (dī'ā-pēd-ē'sis) [ʹ + *pedan*, to leap] The movement of white blood cells and other cells out of small arterioles, venules, and capillaries as part of the inflammatory response. The cells move through gaps between cells in the vessel walls. SEE: *inflammation*.

diaphane (dī'ā-fān) [Gr. *dia*, through, + *phainein*, to appear] A very small electric light used in transillumination.

diaphanography (dī'ā-fān-ōg'rā-fē) Transillumination.

diaphanoscope (dī-ā-fān'ō-skōp) [ʹ + *phainein*, to appear, + *skopein*, to examine] A device for transillumination of body cavities.

diaphanoscopy (dī'ā-fān-ōs'kō-pē) Examination using the diaphanoscope; transillumination.

diaphemetic (dī'ā-fē-mēt'rik) [ʹ + *haphē*, touch, + *metron*, measure] Pert. to the degree of tactile sensibility.

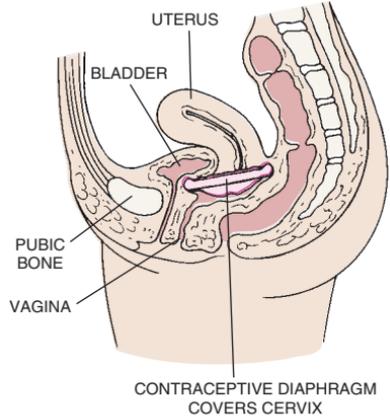
diaphorase (dī-āf'ō-rās) Dihydrolipoamide dehydrogenase.

diaphoresis (dī'ā-fō-rē'sīs) [ʹ + *pherēin*, to carry] Profuse sweating.

diaphoretic (dī'ā-fō-rēt'ik) [ʹ + *pherēin*, to carry] 1. A sudorific, or an agent that increases perspiration. 2. Covered by sweat.

diaphragm (dī'ā-frām) [Gr. *diaphragma*, a partition] 1. A thin membrane such as one used for dialysis. 2. In microscopy, an apparatus located beneath the opening in the stage and permitting regulation of the amount of light passing through the object. 3. A rubber or plastic cup that fits over the cervix uteri, used for contraceptive purposes. SEE: *illus. (Contraceptive Diaphragm)*. 4. The dome-shaped skeletal muscle that separates the abdomen from the thoracic cavity with its convexity upward. It contracts to promote in-

halation, flattening downward and permitting the lungs to expand. It relaxes to promote exhalation, rising to its dome-shaped position and compressing the lungs.



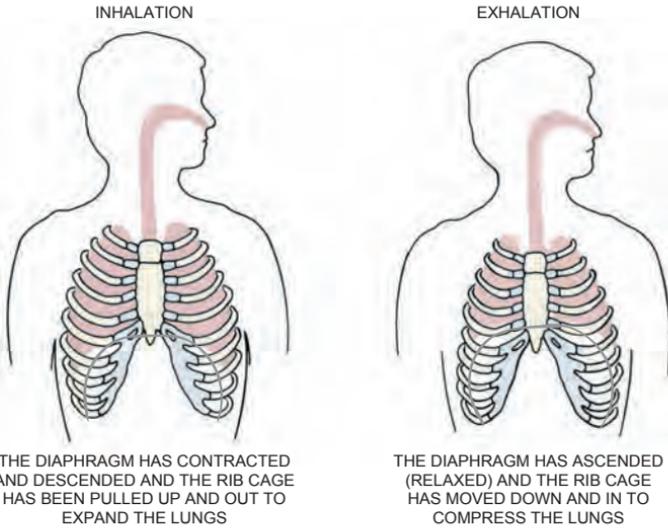
CONTRACEPTIVE DIAPHRAGM

The origin of the diaphragm is the xiphoid process, the lower six costal cartilages, and the lumbar vertebrae. The diaphragm is directly superior to the liver, the stomach, the spleen, the adrenal glands, and the kidneys; the right side is slightly higher than the left. SEE: *illus. (Movement of Rib Cage and Diaphragm During Respiration)*; *Boerhaave syndrome*.

Bucky d. SEE: Bucky diaphragm.

hernia of d. A congenital or traumatic protrusion of abdominal contents through the diaphragm.

pelvic d. The musculofascial layer forming the lower boundary of the abdominopelvic cavity. It is funnel shaped and is pierced in the midline by the urethra, vagina, and rectum. It consists of a muscular layer made up of the paired levator ani and coccygeus muscles. The fascial layer consists of two portions, the parietal and visceral layers. The parietal layer comprises the peritoneum continuous with the connective tissue sheaths of the psoas and iliac muscles. The visceral layer is split from the parietal layer at the white line passing downward and inward to form the upper sheath of the levator ani muscles; the anterior part of this layer unites the bladder with the posterior wall of the pubes. The middle portion splits into three parts: the vesical layer, investing the bladder and urethra; the rectovaginal layer, forming the rectovaginal septum; and the rectal layer, investing the rectum. The posterior part is the base of the broad ligament, where it sheaths the uterine arteries and supports the cervix.



MOVEMENT OF RIB CAGE AND DIAPHRAGM DURING RESPIRATION

urogenital d. The urogenital trigone, or triangular ligament. A musculofascial sheath that lies between the ischio-pubic rami, it is superficial to the pelvic diaphragm. In males it surrounds the membranous urethra; in females, the vagina.

diaphragmatic (dī'ā-frāg-măt'īk) Pert. to the diaphragm.

diaphragmatic flutter Leeuwenhoek's disease.

diaphragmatocele (dī'ā-frāg-măt'ō-sēl) [*l'* + *kele*, tumor, swelling] A hernia of the diaphragm.

diaphyseal (dī'ā-fiz'ē-āl) [Gr. *diaphysis*, a growing through] Part of or affecting the shaft of a long bone.

diaphysectomy (dī'ā-ft-zī'tō-mē) [*l'* + *ektome*, excision] Removal of part of the shaft of a long bone.

diaphysis (dī-āf'ī-sīs) The shaft or middle part of a long cylindrical bone. SEE: *apophysis*; *epiphysis*.

diaphysitis (dī'ā-ft-zī'tīs) [Gr. *diaphysis*, a growing through, + *itis*, inflammation] Inflammation of the shaft of a long bone.

diarrhea (dī-ā-rē'ā) [*l'* + *rhein*, to flow] The passage of fluid or unformed stools. In acute diarrhea, the frequency of bowel movements and the volume of fluid lost determine the severity of the illness. In tropical nations, infectious diarrheal illnesses are among the most common causes of disease and death, esp. in children, who become dehydrated easily. Diarrhea in the tropics is typically attributed to contaminated drinking water, inadequate sanitation, or poor hygiene. Worldwide, millions of children die from diarrhea each year.

Diarrheal illnesses are common in Western nations as well but tend to be more benign and more effectively managed. SEE: *cholera*; *epidemic viral gastroenteropathy*; *oral rehydration therapy*; **Nursing Diagnoses Appendix. diarrheal, adj.**

ETIOLOGY: Five general mechanisms may cause diarrhea. *Excessive secretion*, or secretory diarrhea, is usually caused by infectious organisms (e.g., adenovirus, rotavirus, *Vibrio cholerae*, *Cryptosporidium*) or enterotoxins (e.g., *Escherichia coli*, *Clostridium difficile*), which produce excessive secretion of electrolytes and water. More than 500 ml of stool/day is excreted even during fasting. In *inflammatory or exudative disorders*, infectious organisms (e.g., *Salmonella*, *Shigella*) damage the intestinal mucosa; the stools often contain blood or pus and can be of small volume (dysentery) or large. The diarrhea continues during fasting. Transmission of infectious organisms is most commonly person-to-person or through contaminated water or food. The incubation period and duration of illness vary, depending on the organism involved. The diarrhea may be bloody.

Osmotic diarrhea occurs when highly concentrated substances that cannot be absorbed (e.g., antacids, lactulose, lactose) pull water from the intestinal wall into the stool. More than 500 ml of stool/day is excreted, but the diarrhea subsides during a fasting state.

Malabsorption of nutrients results in steatorrhea (bulky, fatty stools) with high osmolality. The diarrhea is eliminated by fasting, and both osmotic and

secretory components are involved. *Abnormal intestinal motility* resulting from surgical removal of sections of the bowel, diabetic neuropathy, or irritable bowel syndrome produces alternating patterns of diarrhea and constipation.

SYMPTOMS: Frequent watery bowel movements or stools with pus, blood, oils, or mucus are characteristic of diarrhea, as are abdominal cramping, bloating, or rectal discomfort. When volume losses from diarrhea are large, symptoms of dehydration or electrolyte imbalance, such as dizziness, thirst, and prostration, are common.

TREATMENT: Fluid replacement is the key to successful management of acute diarrhea and the prevention of its complications. Oral rehydration therapies (ORTs) are inexpensive, safe, and effective tools for volume repletion. Intravenous fluids are more costly. Infectious causes of diarrhea are often managed with antibiotics (such as sulfa drugs or quinolones). Antidiarrheal agents include kaolin derivatives, loperamide, and paregorics. Alternative medicine practitioners advocate herbal remedies such as arrowroot. The management of chronic diarrhea depends on the underlying cause.

PATIENT CARE: The patient is assessed for signs and symptoms of dehydration and metabolic disarray or renal failure, such as headache, lethargy, orthostatic dizziness, decreasing level of consciousness, and compensatory hyperventilation. The frequency, consistency, color, and volume of stools are monitored, and bowel sounds auscultated for changes from normal patterns. Fluid balance, intake and output, and daily weights are also monitored. Prescribed oral or intravenous fluids and electrolyte and nutrient replacements are administered, and the patient's response is evaluated. The anal area is assessed for skin excoriation and gently but thoroughly washed and rinsed after each bowel movement, and protective ointment is applied. Standard precautions are observed for these interventions. Antidiarrheal medications are administered as prescribed. Whenever diarrhea or acute gastroenteritis of unknown cause is encountered, health professionals should consider the possibility of waterborne illness and obtain a drinking water history (e.g., water sources at home, school, and work, recreational water exposures, travel abroad, use of filtering system).

The spread of infectious diarrhea is prevented by practicing and teaching thorough handwashing and hygiene measures, by correctly handling and refrigerating foods at risk for bacterial contamination, by appropriately filtering or treating water supplies, and by

reporting diarrheal pathogens to appropriate public health authorities.

acute d. Diarrhea marked by sudden onset.

antibiotic-associated d. Mild to moderate diarrhea in individuals taking oral antibiotics. The antibiotics destroy the normal flora in the gastrointestinal tract. SEE: *pseudomembranous colitis*.

dysenteric d. Dysentery.

emotional d. Diarrhea caused by emotional stress.

epidemic d. in the newborn Contagious diarrhea in a newborn caused by pathogenic strains of *Escherichia coli*, occurring in epidemics in hospitals.

factitious d. Self-induced diarrhea. This can be accomplished, for example, by self-medication with laxatives. SEE: *Munchausen syndrome*.

fatty d. Steatorrhea.

infantile d. Diarrhea in children under 2 years of age. Most commonly, it is caused by infectious enterocolitis due to rotavirus, Norwalk virus, or *Escherichia coli*. SEE: *enterocolitis*. SYN: *toddler's diarrhea*.

SYMPTOMS: Frequent watery stools, occasionally accompanied by evidence of dehydration, are the primary findings.

TREATMENT: Each year the deaths of thousands of children with diarrhea are prevented by the use of oral rehydration solutions consisting of clean (i.e., potable) water, salt, potassium, bicarbonate, and glucose. SEE: *oral rehydration solution*.

lienteric d. Watery stools with undigested food particles.

membranous d. Diarrhea with pieces of intestinal mucosa.

mucous d. Diarrhea with mucus.

osmotic d. Diarrhea caused by the retention of osmotically active solutes in the small intestine. This causes fluid to be drawn into the intestinal lumen. The retained fluid is more than the colon can resorb. The solute may be the result of maldigestion, malabsorbed nutrients, or drugs.

purulent d. Diarrhea with pus, a result of intestinal ulceration.

secretory d. Diarrhea in which there is a large volume of fecal output caused by abnormalities of the movement of fluid and electrolytes into the intestinal lumen. This can be caused by hormonal abnormalities present in disorders such as carcinoid syndrome, Zollinger-Ellison syndrome, certain types of pancreatic adenomas, and medullary carcinomas of the thyroid.

simple d. Diarrhea in which stools contain only normal excreta.

summer d. Diarrhea occurring in children during months when rotavirus is not prevalent. *Shigella*, *Campylobacter jejuni*, and cryptosporidia are among the most common causes.

toddler's d. Infantile diarrhea.
travelers' d. ABBR: TD. Diarrhea experienced by visitors, esp. those who go to tropical countries. The most common causes are enterotoxigenic *Escherichia coli*, amebas, *Giardia*, *Cyclospora*, *Cryptosporidium*, *Shigella*, *Salmonella*, and *Campylobacter*. The disease is common, affecting as many as 40% of travelers to underdeveloped nations. There is no completely effective method of prevention, but avoidance of tap water, fresh fruits and vegetables, iced drinks, or inadequately cooked foods is helpful. Fish and shellfish may contain biotoxins even when well cooked; local residents can provide valuable advice concerning which fish to avoid. Loperamide with a quinolone antibiotic (e.g., ciprofloxacin) used after the passage of the first loose stool frequently aborts the illness, but children and pregnant women should not take quinolones. As with other forms of diarrhea, rehydration is crucial. Antidiarrheals are used for comfort.

weanling d. Severe gastroenteritis that sometimes occurs in infants who recently have been weaned.

diarrhegenic, diarrheogenic (dī-ā-rē-ā-jěn'ik) [" + "] Producing diarrhea.

diarrheal shellfish poisoning ABBR: DSP. Nausea, vomiting, abdominal cramping, and diarrhea occurring after eating shellfish that have ingested okadaic acid and other toxins produced by marine algae (dinoflagellates). The disease resolves spontaneously from within hours to a few days.

diarthric (dī-ār'thrik) [Gr. *dis*, two, + *arthron*, joint] Pert. to two or more joints.

diarthrosis (dī'ār-thrō'sis) [Gr., a movable articulation] An articulation in which opposing bones move freely (e.g., a hinge joint or a pivot joint).

diarticlar (dī'ār-tik'ū-lār) [Gr. *dis*, two, + L. *articulus*, joint] Pert. to two joints; specifically, the temporomandibular joints, where the mandible articulates in two places with the skull.

diary A personal record kept by a patient or caregiver of important outpatient observations, e.g., blood pressures; blood glucose levels; caloric intake; or the frequency of certain symptoms, such as bowel movements, crying spells, headaches, palpitations, or urination.

diaschisis (dī-ās-kī'sis) In a person with a focal brain injury, a reduction in synaptic activity (and often, cerebral blood flow and metabolism) in a part of the brain that is remote from the injury. Brain functions that are lost as a result of diaschisis often are restored with rehabilitation or the return of blood flow.

diascope (dī-ā-skōp) [Gr. *dia*, through, + *skopein*, to examine] A glass plate

held against the skin for examining superficial lesions. Erythematous lesions will show the compressed capillary bed, but a hemorrhagic area will not blanch when the glass is pressed against the skin.

diascopy (dī-ā'skō-pē) Examination of skin lesions by means of a diascope. SEE: *illus.*



DIASCOPY

diastalsis (dī-ā-stāl'sis) [" + *stalsis*, contraction] A wave of inhibition before a forward contraction in the intestine. The process is similar to peristalsis.

diastaltic (dī-ā-stāl'tik) **1.** Pert. to diastalsis. **2.** Denoting reflex action.

diastase (dī-ās-tās) [Gr. *diastasis*, a separation] A specific enzyme in plant cells, such as sprouting grains and malt, that converts starch into sugar.

diastasis (dī-ās'tā-sis) [Gr.] **1.** In surgery, injury to a bone involving separation of an epiphysis. **2.** In cardiac physiology, the last part of diastole. It follows the period of most rapid diastolic filling of the ventricles, consists of a period of retarded inflow of blood from atria into ventricles, lasts (in humans under average conditions) about 0.2 sec, and is immediately followed by atrial systole.

d. recti A separation of the two halves of the rectus abdominis muscles in the midline at the linea alba. This condition is benign when it occurs in pregnant women.

diastema (dī-ā-stē'mā) *pl.* **diastemata** [Gr. *diastema*, an interval or space] **1.** A fissure. **2.** A space between two adjacent teeth.

diastematocrania (dī-ā-stēm'ā-tō-krā'nē-ā) [" + *kranion*, cranium] A congenital sagittal fissure of the skull.

diastematomyelia (dī-ā-stēm'ā-tō-mī-ē'lē-ā) [" + *myelos*, marrow] A congenital fissure of the spinal cord, frequently associated with spina bifida cystica.

diastematopyelia (dī-ā-stēm'ā-tō-pī-ē'lē-ā) [" + *pyelos*, pelvis] A congenital median slit of the pelvis.

diaster (dī-ās'tēr) [Gr. *dis*, two, + *aster*, star] A double star figure formed during mitosis. SYN: *amphiaster*.

diastole (dī-ās'tō-lē) [Gr. *diastellein*, to expand] The period of cardiac muscle relaxation, alternating in the cardiac cycle with systole or contraction. During diastole, the cardiac muscle fibers lengthen and the chambers fill with blood. SEE: *blood pressure; heart; murmur; pulse; systole*.

diastolic (dī-ās-tōl'ik) Pert. to diastole.

diataxia (dī'ā-tāk'sē-ā) [Gr. *dis*, two, + *ataxia*, lack of order] Bilateral ataxia.

diathermal (dī'ā-thēr'māl) [Gr. *dia*, through, + *therme*, heat] Able to absorb heat rays.

diathermic (dī'ā-thēr'mik) Of the nature of diathermy or of its results.

diathermy (dī'ā-thēr'mē) [Gr. *dia*, through, + *therme*, heat] The therapeutic use of a high-frequency current to generate heat within some part of the body. The frequency is greater than the maximum frequency for neuromuscular response and ranges from several hundred thousand to millions of cycles per second. It is used to increase blood flow to specific areas. It should not be used in the acute stage of recovery from trauma.

medical d. The generation of heat within the body by the application of high-frequency oscillatory current for warming, but not damaging, tissues.

short-wave d. Diathermy using wavelengths of 3 to 30 m.

surgical d. Diathermy of high frequency for electrocoagulation or cauterization.

diathesis (dī-āth'ē-sis) [Gr. *diatithenai*, to dispose] A constitutional predisposition to certain diseases or conditions.

diathetic (dī'ā-thēt'ik) Pert. to diathesis.

diatom (dī'ā-tōm) [Gr. *diatēnnein*, to cut through] One of a group of unicellular, microscopic algae, numerous in freshwater and saltwater. Its cell walls are made of silica.

diatomic (dī'ā-tōm'ik) **1.** Containing two atoms; said of molecules. **2.** Bivalent.

diatrizoate meglumine (dī'ā-trī-zō'āt) A high-osmolarity, water-soluble ionic contrast medium with the cation consisting of meglumine during ionic dissociation. It is used intra-arterially to visualize the arteries and veins of the heart and brain, great vessels such as the aorta, and the kidneys and bladder.

diatrizoate sodium A high-osmolarity, water-soluble contrast medium with the cation consisting of sodium during ionic dissociation. It is used to visualize various hollow body organs such as the kidney, bladder, uterus, and fallopian tubes.

diazepam (dī-āz'ē-pām) An anti-anxiety and sedative drug used extensively in the U.S. It is used to treat status epilepticus, acute cocaine poisoning, and a variety of anxiety disorders. Prolonged use may cause dependence or tolerance.

diazo- A prefix used in chemistry to indicate that a compound contains the —N=N— group.

diazo reaction (dī-āz'ō) A deep red color in urine, produced by the action of *p*-diazobenzene-sulfonic acid and ammonia on aromatic substances found in the urine in certain conditions.

diazotize (dī-āz'ō-tīz) In chemistry, to convert NH₂ groups into diazo, —N=N—, groups.

dibasic (dī-bā'sik) [" + *basis*, base] Capable of neutralizing or accepting two hydrogen ions.

DIC disseminated intravascular coagulation.

dicalcic, dicalcium (dī-kāl'sik) [" + L. *calx*, lime] Containing two atoms of calcium.

dicentric (dī-sēn'trik) Having two centers or two centromeres.

dicephalus (dī-sēf'ā-lūs) [" + *kephale*, head] A congenitally deformed fetus with two heads.

dichorionic (dī'kō-rē-ōn'ik) Having two chorions. This may occur in two-egg (dizygotic) twins.

dichotomy, dichotomization (dī-kōt'ō-mē, dī-kōt'ō-mī-zā'shūn) [Gr. *dicha*, twofold, + *tome*, incision] **1.** Bifurcation of a vein. **2.** Cutting or dividing into two parts.

dichroic (dī-krō'ik) Pert. to dichroism.

dichroic mirror An optical device used in some spectrophotometers to split a beam of light into reference and sample beams.

dichroism (dī-krō'izm) [Gr. *dis*, two, + *chroa*, color] The property of appearing to be one color by direct light and another by transmitted light.

dichromate (dī-krō'māt) A chemical that contains the Cr₂O₇ group.

dichromatic (dī'krō-māt'ik) Able to see only two colors.

dichromatism (dī-krō'mā-tizm) The ability to distinguish only two primary colors. SYN: *dichromatopsia*.

dichromatopsia (dī'krō-mā-tōp'sē-ā) [" + *chroma*, color, + *opsis*, sight] Dichromatism.

dichromic (dī-krō'mik) **1.** Containing two atoms of chromium. **2.** Seeing only two colors.

dichromophil (dī-krō'mō-fil) [" + *chroma*, color, + *philein*, to love] Double staining with both acid and basic dyes.

dichromophilism (dī'krō-mōf'il-izm) [" + " + " + *-ismos*, condition] The capacity for double staining.

dicrophane (dī'kō-fān) A powerful insecticide now rarely used because of its toxicity. SYN: *chlorophenothane; DDT*.

dicrotic (dī-krōt'ik) [Gr. *dikrotos*, beating double] Having two arterial pulsations for one heartbeat; pert. to a double pulse; bisferious.

dicrotic notch In a pulse tracing, a notch on the descending limb.

dicrotic wave A positive wave following the dicrotic notch.

dicrotism (dī'krōt-izm) [*l'* + *-ismos*, condition] The state of being dicrotic.

dictyosome (dik'tē-ō-sōm) [Gr. *diktyon*, net, + *soma*, body] A cytoplasmic vesicle thought to be a secretory portion of the Golgi apparatus.

dicumarol (dī-koo'mā-rōl) An anticoagulant drug. SEE: *warfarin sodium*.

dicyclic (dī-sī'klīk) **1.** Having or concerning two cycles. **2.** In chemistry, containing two cyclic ring structures.

didactic (dī-dāk'tīk) [Gr. *didaktikos*] Concerning instruction by lectures and use of texts as opposed to clinical or bedside teaching.

didactylism (dī-dāk'tī-lizm) [Gr. *dis*, two, + *daktylos*, finger] The congenital condition of having only two digits on a hand or foot.

didelphic (dī-dēl'fīk) [*l'* + *delphus*, uterus] Having or pert. to a double uterus.

didymus (dīd'ī-mūs) [Gr. *didymos*, twin] **1.** Twin. **2.** A congenital abnormality involving joined twins. **3.** Testis.

die **1.** To cease living. **2.** In dentistry, a positive duplicate made from an impression of a tooth.

dieldrin (dī-ēl'drīn) A chlorinated hydrocarbon used as an insecticide. It is toxic to humans and marine and terrestrial animals. SEE: *Poisons and Poisoning Appendix*.

dielectric (dī-ē-lēk'trīk) [Gr. *dia*, through, + *elektron*, amber] Insulating by offering great resistance to the passage of electricity by conduction.

diencephalon (dī'ēn-sēf'ā-lōn) [Gr. *dis*, two, + *enkephalos*, brain] The second portion of the brain, or that lying between the telencephalon and mesencephalon. It includes the epithalamus, thalamus, metathalamus, and hypothalamus. SYN: *thalamencephalon*.

Dientamoeba (dī'ēn-tā-mē'bā) A genus of parasitic protozoa marked by possession of two similar nuclei.

D. fragilis A species of parasitic ameba inhabiting the intestine of humans. Persons infected may have diarrhea with blood or mucus, abdominal pain, and anal pruritus. This ameba has been found inside the eggs of pinworms. The eggs may act as a vector.

dieresis (dī-ēr'ē-sīs) [Gr. *diaresis*, a division] **1.** Breaking up or dispersion of things normally joined, as by an ulcer. **2.** Mechanical separation of parts by surgical means.

dieretic (dī'ē-rē-t'īk) Pert. to dieresis; dissolvable or separable.

diet [Gr. *diaita*, way of living] **1.** Liquid and solid food substances regularly consumed in the course of normal living. **2.** A prescribed allowance of food

adapted for a particular state of health or disease. It is also known as a strategy for eating or an eating plan. SEE: table. SYN: *eating plan*. **3.** To eat or drink sparingly in accordance with prescribed rules.

acid-ash d. A diet designed to acidify the urine. It contains acidic foods such as meat, fish, eggs, and cereals and is lacking in fruits, vegetables, cheese, and milk.

alkali-ash d. A diet designed to produce an alkaline urine. It contains foods such as fruits, vegetables, and milk and is lacking in meat, fish, eggs, and cereals.

American Heart Association d., Step I A meal plan in which no more than 30% of consumed calories come from fats (10% as saturated fat), and in which cholesterol intake is less than 300 mg/day.

American Heart Association d., Step II A meal plan in which less than 30% of total calories are consumed as fat, (7% as saturated fat) and cholesterol intake is limited to less than 200 mg/day. This diet is recommended esp. for patients with abnormal serum lipid levels who have known coronary artery disease.

balanced d. A diet adequate in energy-providing substances (carbohydrates and fats), tissue-building compounds (proteins), inorganic chemicals (water and mineral salts), agents that regulate or catalyze metabolic processes (vitamins), and substances for certain physiological processes, such as bulk for promoting peristaltic movements of the digestive tract.

bland d. A diet designed to buffer gastric acidity by providing meals of palatable, nonirritating foods. Content of diet includes milk, cream, prepared cereals, gelatin, soup, rice, butter, crackers, eggs, lean meats, fish, cottage cheese, custards, tapioca, cookies, and plain cake. Multivitamins may be a necessary adjunct. A bland diet may be indicated in treatment of gastritis, peptic ulcer, and hiatal hernia.

calorie reduction d. ABBR: CRD. Reducing diet.

convalescent d. A diet suitable for the condition from which the patient is recovering.

DASH d. *Dietary Approaches to Stop Hypertension diet*.

Dietary Approaches to Stop Hypertension d. ABBR: DASH diet. A specific eating plan proven to treat stage I hypertension, consisting of generous amounts of cereals, fruits, and vegetables (for fiber, vitamins, and minerals), low-fat dairy products, nuts, and lean meats (to maximize protein intake without too much saturated fat and cholesterol). Guidelines for a diet of 2000 cal-

Diseases in Which Diet Plays an Important Role

Condition	Consensus Recommendations
Celiac sprue	Avoid gluttons
Cholelithiasis	Avoid fatty foods
Cirrhosis	Limit sodium; limit protein intake
Coronary artery disease	American Heart Association diets
Congestive heart failure	Limit sodium
Diabetes mellitus	American Diabetic Association Diet, calorie limited; exercise
Diverticulosis	Low-residue diet
Dysphagia	Special consistency diets as indicated by testing/tolerance
Esophagitis	Avoid alcohol, nonsteroidal drugs, tobacco; consume thick liquids
Gastroesophageal reflux	Avoid caffeine, chocolates, mints, or late meals
Gout	Limit alcohol and purine intake
Hyperhomocysteinemia	Increase consumption of folates, vitamin B ₁₂
Hyperlipidemias	National Cholesterol Education Program Diet with limited fat and cholesterol and increased fiber
Iron deficiency anemia	Iron supplements with vitamin C
Irritable bowel syndrome	Increase fiber content of meals, limit dairy products
Kidney stone formers	Liberal fluid intake
Nephrotic syndrome	Limit sodium intake
Obesity	Caloric restriction, accompanied by increased exercise
Osteoporosis	Supplement calcium and vitamin D; limit alcohol and tobacco
Pernicious anemia	Supplement cyanocobalamin (vitamin B ₁₂)
Renal failure	Limit sodium, potassium, protein, and fluids
Women and men over 25 yr of age	Supplement calcium

ories daily include seven to eight servings of grains and grain products; four to five servings of vegetables; four to five servings of fruits; two to three servings of low-fat or nonfat dairy products; two or fewer servings of lean meats, proteins, and fish. The plan also permits four to five servings of nuts, seeds, and legumes per week. It is recommended that sodium intake be less than 3000 g/day. The complete diet provides more specific recommendations for sodium. Compared with the diet recommended in the Food Guide Pyramid, this diet contains more fruits and vegetables but less fat. SEE: table.

elemental d. A predigested liquid diet consisting of amino acids, vitamins, minerals, electrolytes, and glucose.

elimination d. A method for assessing allergic responses to foods. To determine food allergies, foods that are suspected of causing problems are added one at a time to determine whether any of them cause an adverse reaction.

evolution d. An eating plan consisting of high fiber nutrients (with little sugar) taken in small portions throughout the day; it is thought to represent the observed eating habits of primates and of humans in the evolutionary past.

Feingold d. (fin'göld) [Benjamin

Feingold, U.S. pediatrician, 1900–1982] SEE: *Feingold diet*.

fluid d. A nutritional plan (also known as a liquid diet) for persons unable to chew and swallow solid food or for patients whose gastrointestinal tract must be free of solid matter. Fluid diets are often prescribed postoperatively.

gluten-free d. Elimination of gluten from the diet by avoiding all products containing wheat, rye, or barley. Foods containing buckwheat, corn, oats, quinoa, and rice are generally thought to be well tolerated. Because gluten is present in many foods containing thickened sauces, the diet must be discussed with a dietitian. It is the basis of management for celiac disease. SEE: *celiac sprue; sprue*.

high-calorie d. A diet that contains more calories than normally required for an individual's metabolic and energy needs and therefore places the individual in positive energy balance. The diet should include three meals plus between-meal feedings, avoiding fermentable and bulky foods. A high-calorie diet may be used to prevent weight loss in wasting diseases, in high basal metabolism, and after a long illness; in deficiency caused by anorexia, poverty, and

The DASH Diet (Eating Plan)

Food Group	Daily Servings	Serving Sizes	Examples and Notes	Significance of Each Food Group to the DASH Eating Plan
Grains and grain products	7–8	1 slice bread; 1 oz dry cereal; 1/2 C cooked rice, pasta, or cereal	Whole wheat bread, English muffin, pita bread, bagel, cereals, grits, oatmeal, crackers, unsalted pretzels and popcorn	Major sources of energy and fiber
Vegetables	4–5	1 C raw leafy vegetable, 1/2 C cooked vegetable; 6 oz vegetable juice	Tomatoes, potatoes, carrots, green peas, squash, broccoli, turnip greens, collards, kale, spinach, artichokes, green beans, lima beans, sweet potatoes	Rich sources of potassium, magnesium, and fiber
Fruits	4–5	6 oz fruit juice; 1 medium fruit; 1/4 C dried fruit; 1/2 C fresh, frozen, or canned fruit	Apricots, bananas, dates, grapes, oranges, orange juice, grapefruit, grapefruit juice, mangoes, melons, peaches, pineapples, prunes, raisins, strawberries, tangerines	Important sources of potassium, magnesium, and fiber
Lowfat or fat-free dairy foods	2–3	8 oz milk, 1 C yogurt, 1.5 oz cheese	Skim (fat-free) or 1% (low fat) milk, skim or low fat buttermilk, fat-free or low fat regular or frozen yogurt, low fat and fat-free cheese	Major sources of calcium and protein
Meats, poultry, and fish	2 or less	3 oz cooked meats, poultry, or fish	Select only lean; trim away visible fats; broil, roast, or boil, instead of frying; remove skin from poultry	Rich sources of protein and magnesium
Nuts, seeds, and dry beans	4–5/week	1.5 oz or 1/3 C nuts, 1/2 oz or 2 tbsp seeds, 1/2 C dry beans	Almonds, filberts, mixed nuts, peanuts, walnuts, sunflower seeds, kidney beans, lentils	Rich sources of energy, magnesium, potassium, protein, and fiber

Table continued on following page

The DASH Diet (Eating Plan) (Continued)

Food Group	Daily Servings	Serving Sizes	Examples and Notes	Significance of Each Food Group to the DASH Eating Plan
Fats and oils	2–3	1 tsp soft margarine, 1 Tbsp low fat mayonnaise, 1 tbsp regular salad dressing, 2 tbsp light salad dressing, 1 tsp vegetable oil	Soft margarine, low fat mayonnaise, light salad dressing, vegetable oil	DASH has 27% of calories as fat, including fat in or added to foods
Sweets	5/ week	1 tbsp sugar, 1 tbsp jelly or jam, 1/2 oz jelly beans, 8 oz lemonade	Maple syrup, sugar, jelly, jam, fruit-flavored gelatin, jelly beans, hard candy, fruit punch, sorbet, ices	Sweets should be low in fat

SOURCE: National Institutes of Health. September 1998; revised May 2003. Facts about the DASH Eating Plan. http://www.nhlbi.nih.gov/health/public/heart/hbp/dash/new_dash.pdf

poor dietary habits; and during lactation (when an extra 1000 and 1200 kcal each day are indicated).

high-carbohydrate d. An imprecise term for a conventional American eating plan, e.g., one outlined on the website: www.MyPyramid.gov. SEE: *carbohydrate loading*.

high-cellulose d. A veterinary synonym for a high-fiber diet.

high-residue d. A diet that contains considerable amounts of substances such as fiber or cellulose, which the human body is unable to metabolize and absorb. This diet is particularly useful in treating constipation and may be beneficial also in preventing certain diseases of the gastrointestinal tract. Lay persons may refer to a high-residue diet as one containing a lot of roughage. SEE: *fiber*.

Kempner rice-fruit d. (kěmp'nēr) [Walter Kempner, U.S. physician, 1903–1997] SEE: *Kempner rice-fruit diet*.

ketogenic d. A high-fat, high-protein, controlled carbohydrate diet, in which the body primarily metabolizes fats instead of glucose. It has been used to treat some forms of epilepsy and has been promoted as a weight-loss diet as well.

light d. A diet consisting of all foods allowed in a soft diet, plus whole-grain cereals, easily digested raw fruits, and vegetables. Foods are not pureed or ground. This diet is used as an intermediate regimen for patients who do not

require a soft diet but are not yet able to resume a full diet.

liquid d. A diet for persons unable to tolerate solid food or for patients whose gastrointestinal tract must be free of solid matter. This type of diet may contain coffee with hot milk, tea, water, milk in all forms, milk and cream mixtures, cocoa, strained cream soups, fruit juices, meat juices, beef bouillon, tea, clear broths, gruels, strained meat soups, and eggnog.

liquid protein d. A severely calorically restricted diet, lacking carbohydrates, fats, and many minerals and vitamins. Its use has been associated on occasion with cardiac rhythm disturbances and sudden cardiac death.

low carbohydrate, hypocaloric d. A meal regimen that limits total calories, usually to about 1200 calories per day, and total carbohydrates to no more than about 25% of total calories. Although this form of dietary restriction does not create more weight loss than calorically restricted high-carbohydrate diets, it does reduce fasting levels of insulin and triglycerides and may be preferable for inactive or obese patients with type 2 diabetes mellitus or impaired glucose tolerance.

low-fat d. An imprecise term for any diet in which the percentage of calories derived from fatty foods is limited (usually to less than 30% of total calories).

low-protein d. A diet that contains a limited amount of protein. The principal sources of food energy are fats and car-

bohydrates. This diet is used to treat end-stage renal and hepatic disease.

low-salt d. A diet in which no salt is allowed on the patient's tray and no salty foods are served. This diet is used in treating hypertension and congestive heart failure.

macrobiotic d. A dietary regimen developed by George Oshawa, consisting of vegetables and fish advocated for the prevention and treatment of cancer. This diet is derived from the Japanese diet and features soy, rice, seaweed, pickled vegetables, and small amounts of fish. SEE: *pescovegetarian*.

Mediterranean d. A well-tolerated and palatable diet that mimics the traditional cuisine of Italy, Greece, and the islands of the Mediterranean Sea. It includes fish and other seafood, wine, and olive oil, and derives about 25% to 35% of its calories from fat, but the primary fat is olive oil, a monounsaturated fat. Additional healthy fats are supplied by grapeseed oil and fats in whole vegetables, nuts, and seeds.

minimum residue d. A diet used for short periods to ensure a minimum of solid material in the intestinal tract. Foods allowed include one glass of milk per day, clear fluids and juices, lean meat, noodles, and refined cereals.

Minot-Murphy d. (mī' nōt) [George R. Minot, U.S. physician, 1885–1950; William P. Murphy, U.S. physician, b. 1892] SEE: *Minot-Murphy diet*.

National Cholesterol Education Program d. ABBR: NCEP diet. A two-step approach designed to lower blood cholesterol in adults, children, and adolescents. It is similar to the Step I and Step II diets designed by the American Heart Association.

National Renal d. A diet designed by the American Dietetic Association (ADA) and the National Kidney Foundation for the treatment of kidney disease. It consists of six food planning systems based on the ADA Exchange Lists. The presence of diabetes and the use of peritoneal dialysis and hemodialysis are considered.

nonlaxative d. A low-residue diet containing boiled milk and toasted crackers. No strained oatmeal, vegetable juice, or fruit juice is given. Fats and concentrated sweets are restricted.

Paleolithic d. A meal regimen that mimics the food choices of modern hunter-gatherer societies or primitive human cultures. It includes nuts, fruits, vegetables, wild game, and fish and typically derives about 21% of its calories from fat. SEE: *evolution d.*

peptide d. A diet in which nitrogen content is provided as simple amino acids (or small strings linked by amino acids) rather than as intact proteins.

prudent d. A diet designed to protect

against heart disease, stroke, and other common diseases; it consists of fruits, vegetables, whole grains, legumes, nuts, fish, and low-fat dairy products rather than refined or processed foods, red meats, high concentrated sweets, eggs, and butter. A multistep approach decreases fat, cholesterol, and protein.

purine-restricted d. A diet that limits purine and fats and encourages fluid intake; used to control the excessive levels of uric acid caused by gout. High purine foods include sweetbreads, anchovies, sardines, liver, beef kidneys, brains, and herring. Historically, gout was thought of as a disease of the wealthy, because only wealthy individuals could afford to eat such foods. It is now much more widespread, and its causes are known to be more diverse.

reducing d. A diet designed to help people lose weight (i.e., a diet with a restricted number of calories and a carefully crafted balance of other nutrients). SYN: *calorie reduction diet*.

residue-free d. A diet without cellulose or roughage. Semisolid and bland foods are included. Low-residue diets are used to prepare the colon for barium enemas or colonoscopy and occasionally to help manage Crohn's disease.

salt-free d. A low-sodium diet containing about 500 mg (approx. 10 mmol) of sodium daily. It is used occasionally to help manage hypertension, congestive heart failure, or renal failure. On this diet, table salt should not be added to food, and the salt content of commonly used beverages such as beer or soft drinks should be noted. To help regulate sodium consumption, sodium-containing medicines should be avoided. SEE: *salt*.

soft d. A diet consisting of nothing but soft or semisolid foods or liquids, including fish, eggs, cheese, chicken, cereals, bread, toast, and butter. Excluded are red meats, vegetables, or fruits having seeds or thick skins, cellulose, raw fruits, and salads. SYN: *convalescent diet*.

tyramine-free d. A diet for patients taking monoamine-oxidase inhibitors in which fermented foods, aged cheeses, wine, stimulants, and decongestants are eliminated to avoid a possible hyperadrenergic crisis from the combination of these drugs with tyramine-rich substances.

very low calorie d. A commercially available diet in which caloric intake may be from 400 to 800 kcal/day. The very low calorie diet is usually in the form of a powdered supplement that is taken 3 to 5 times a day with large amounts of water. This type of diet can be effective, but the long-range efficacy in maintaining the weight loss may be discouraging. Vitamins and minerals

are typically added to this eating plan because the small number of macronutrients consumed are inadequate to supply daily needs.

Western d. A diet with inadequate fruits, vegetables, whole grains, legumes, fish, and low-fat dairy products and excessive amounts of refined and processed foods, alcohol, salt, red meats, sugary beverages, snacks, eggs, and butter. The Western diet, which is low in potassium, high in sodium, fats, and simple carbohydrates, has been implicated in many diseases, including atherosclerosis, type II diabetes, hypertension, and obesity.

yo-yo d. A popular term to describe a dietary practice resulting in alternating cycles of losing and regaining weight. SYN: *weight cycling*.

dietary (dī'è-tā'rē) **1.** Pert. to diet. **2.** A system of dieting. **3.** A regulated food allowance.

Dietary Guidelines for Americans Recommendations issued periodically and revised in 2000 from the Center for Nutrition Policy and Promotion at the U.S. Department of Agriculture for planning and eating a healthy diet. SEE: table; *Food Guide Pyramid*.

Dietary Reference Intakes ABBR: DRI. In the U.S., federally recommended dietary allowances, adequate intakes, tolerable upper intake levels, and estimated average requirements for essential nutrients and other food components in the diet.

dietetic (dī'è-tèt'ik) **1.** Pert. to diet or its regulation. **2.** Food specially prepared for restrictive diets.

dietetics (dī'è-tèt'iks) [Gr. *diatitikos*] The science of applying nutritional data

Dietary Guidelines for Americans

AIM FOR FITNESS

Aim for a healthy weight.
Be physically active each day.

BUILD A HEALTHY BASE

Let the Food Guide Pyramid guide your food choices.

Choose a variety of grains daily, especially whole grains.

Choose a variety of fruits and vegetables daily.

Keep food safe to eat.

CHOOSE SENSIBLY

Choose a diet that is low in saturated fat and cholesterol and moderate in total fat.

Choose beverages and foods to moderate your intake of sugars.

Choose and prepare foods with less salt.

If you drink alcoholic beverages, do so in moderation.

to the regulation of the diet of healthy and sick individuals. Some fundamental principles and facts of this science are summarized here.

CONSERVATION OF ENERGY: To produce metabolic balance, the number of calories consumed must equal the energy required for basic metabolic needs plus additional energy output resulting from muscular work and added heat losses. Thus a person whose basal rate is 1000 kcal per 24 hr may do work and lose heat during the day, adding about 1500 kcal to the energy output; he or she must, therefore, obtain 2500 kcal per day.

One g of fat yields approx. 9 kcal. One g of carbohydrate or protein yields about 4 kcal.

NOTE: To convert kilocalories to kilojoules, multiply them by 4.1855.

CONSERVATION OF MATTER: Everything that leaves the body, whether exhaled as carbon dioxide and water or excreted as urea and minerals, must be replaced by food. Thus, a person excreting 10 g of nitrogen daily must receive the same in his or her diet, for the element can be neither created nor destroyed. This metabolic balance may be monitored by careful chemical analysis of all that is eaten and excreted.

dietetic technician A technician who assists the food service manager and dietitian in a health care facility with planning, implementing, and evaluating food programs. The technician may train and supervise dietary aides.

dietetic treatment Treatment of disease based on regulation of diet.

di-2-ethylhexyl phthalate (dī-too-èth'il-hèks-ìl fthāl'āt) ABBR: DHEP. A plastic form of polyvinyl chloride used to manufacture intravenous (IV) tubing and containers. It may leach into IV solutions during the administration of fluids and blood products, producing toxic effects.

diethylstilbestrol (dī-èth'il-stìl'bès'tròl) ABBR: DES. A synthetic preparation possessing estrogenic properties. It is several times more potent than natural estrogens and may be given orally. It is used therapeutically in the treatment of menopausal disturbances and other disorders due to estrogen deficiencies.



Diethylstilbestrol should not be administered during pregnancy. Such use has been found to be related to subsequent vaginal malignancies in the daughters of mothers who were given it.

This drug was once used extensively during pregnancy to treat threatened and habitual abortion. An estimated 5 million to 10 million Americans received DES during pregnancy or were

exposed to the drug in utero. Those who were exposed to DES in utero were found to be at risk of developing reproductive tract abnormalities such as clear-cell cervicovaginal cancer in women and reproductive tract abnormalities in men. These findings were reported in 1970; the use of the drug during pregnancy was subsequently banned in the U.S. in 1971 and in Europe in 1978. Women who took the drug are now known as DES mothers and their daughters and sons are known as DES daughters and DES sons, respectively. SEE: *DES daughter*; *DES syndrome*.

diethyltoluamide (dī-ēth'īl-tōl-ū'ā-mīd) ABBR: DEET. An effective insect repellent, esp. for repelling arthropods such as ticks and mosquitoes and flies.

diethyltryptamine (dī-ēth'īl-trīp'tā-mīn) A hallucinogenic agent that at low doses has effects similar to those of LSD.

dietitian, dietician (dī-ē-tīsh'ān) [Gr. *diaita*, way of living] An individual whose training and experience are in the area of nutrition and who has the ability to apply that information to the dietary needs of the healthy and sick.

registered d. ABBR: RD. A specialist in dietetics who has met the requirements for certification stipulated by the American Dietetic Association.

Diet's crisis A sudden, severe attack of gastric pain, chills, fever, nausea, and collapse. In cases of floating kidney, the ureter becomes kinked and urine is obstructed, producing symptoms of renal colic.

dietotherapy (dī'ē-tō-thēr'ā-pē) Use of the sciences of dietetics and nutrition in treating disease.

diet therapy The alteration of dietary intake to treat or prevent clinical disease. SEE: *diet*.

Dieulafoy's triad (dyū-lā-fwāzh') [Georges Dieulafoy, Fr. physician, 1839–1911] Tenderness, muscular contraction, and skin hyperesthesia at McBurney's point in acute appendicitis.

differential (dīf'ēr-ēn'shāl) [L. *differre*, to carry apart] Marked by or relating to differences.

differential amplifier An amplifier used to increase the difference between two signals, one of which is usually a reference.

differential lung ventilation The use of different ventilatory strategies in each lung in a patient with focal lung disease, e.g., a patient undergoing surgery to remove a tumor in one lobe of a lung but not another, or a patient with more severe COPD on one side of the chest than another. This technique requires a double-lumen endotracheal tube.

differentiation (dīf'ā-rēn'shē-ā'shūn) 1. In embryology, the acquiring of individual characteristics. This occurs in progres-

sive diversification of cells of the developing pre-embryo and embryo. 2. The distinguishing of one disease from another. 3. In psychiatry, the integration of emotional and intellectual functions in an individual.

lymphocyte d. The process by which immature lymphocytes are stimulated to become functional T and B cells able to recognize and respond to antigens.

differentiation therapy The use of medications to make cancer cells evolve into cells no longer capable of infinite replication.

diffraction (dī-frāk'shūn) [L. *diffingere*, to break to pieces] The change occurring in light when it passes through crystals, prisms, or parallel bars in a grating, in which the rays are deflected and thus appear to be turned aside. This produces dark or colored bands or lines. The term is also applied to similar phenomena in sound.

diffraction grating The device in a spectrophotometer that disperses white light into the colors (wavelengths) of the electromagnetic spectrum, using multiple lines precisely etched into an optically aligned material such as a specialized mirror or metal plate.

diffusate (dīf'ū-sāt) [L. *dis*, apart, + *fundere*, to pour] In dialysis, the portion of a liquid that passes through a membrane and that contains crystalloid matter in solution. SYN: *dialysate*.

diffuse (dī-fūs') Spreading, scattered, spread.

diffusible (dī-fūz'ī-bl) Capable of being diffused.

diffusion (dī-fū'zhūn) [″ + *fundere*, to pour] The tendency of the molecules of a substance (gas, liquid, or solid) to move from a region of high concentration to one of lower concentration. In the body, oxygen and carbon dioxide move by diffusion. The diffusion of water to an area of greater solute concentration is called osmosis. SEE: *illus.*

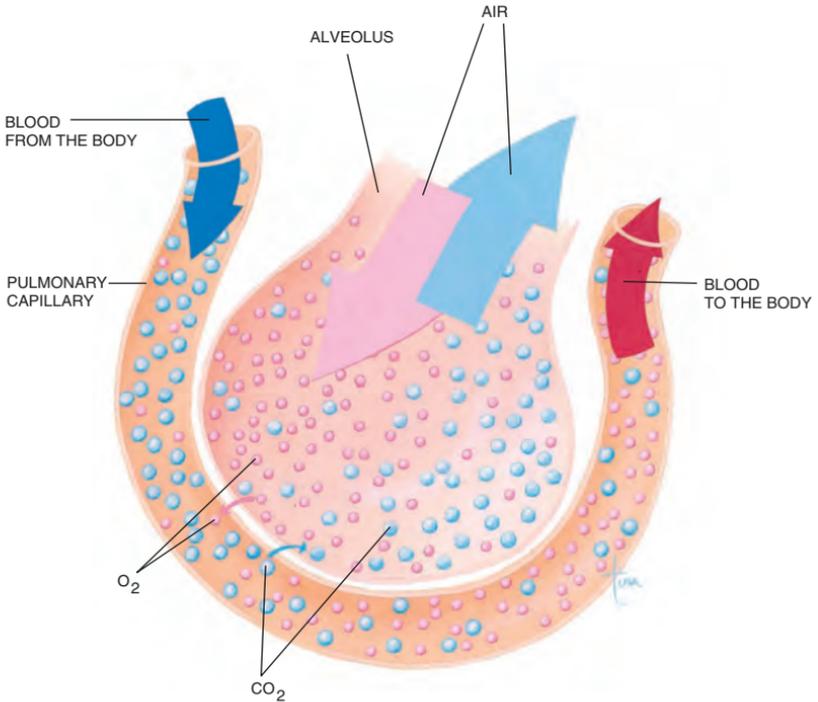
facilitated d. The movement of a substance (such as glucose) through a cell membrane with the help of membrane proteins acting as carrier molecules.

Diflucan SEE: *fluconazole*.

digastric (dī-gās'trīk) [Gr. *dis*, twice, + *gaster*, belly] Having two bellies; said of certain muscles.

Digenetica (dī-jē-nēt'ī-kā) An order of parasitic flatworms belonging to the class Trematoda. It reproduces asexually, lives usually in molluscs, and alternates with a sexual generation living in vertebrates as their final host. It includes all four groups of flukes parasitic in humans. SEE: *fluke*.

DiGeorge syndrome (dē-jōrj') A congenital aplasia or hypoplasia of the thymus caused by a missing gene on chromosome 22 and subsequent deficiency of competent T lymphocytes and cell-me-



DIFFUSION OF RESPIRATORY GASES

diated immunity. Also characteristic are hypoparathyroidism and heart defects.

digest [L. *dis*, apart, + *gerere*, to carry]

1. To undergo the process involved in changing food from a solid physical form to a soft, moisturized mass broken down in the intestinal tract by chemicals, bacteria, and enzymes. SEE: *metabolism*.

2. To make a condensation of a subject.

digestant (dī-jes'tánt) **1.** An agent that digests food or aids in digestion, such as pepsin or pancreatin. **2.** A preparation made from the digestive glands or lining membrane of the stomach, classified ac-

ording to the foods it digests, such as carbohydrate or protein.

digestible Capable of being digested.

digestion [L. *digestio*, a taking apart]

The process by which food is broken down mechanically and chemically in the gastrointestinal tract and converted into absorbable forms. Salts (minerals), water, and monosaccharides can be absorbed unchanged, but starches, fats, and proteins must be broken down into smaller molecules. This is brought about by enzymes, each of which acts on a specific type of food and requires a specific pH to be effective. SEE: table.

Action of Digestive Enzymes on Food

Food Component	Enzyme	Secretion	Site of Action
Proteins	Pepsin	Gastric juice, acid	Stomach
	Trypsin	Pancreatic juice, alkaline	Small intestine
Fats	Peptidases	Intestinal juice	Small intestine
	Lipase	Gastric juice Pancreatic juice	Stomach Small intestine
Carbohydrates	Salivary amylase	Saliva, alkaline	Mouth
	Pancreatic amylase	Pancreatic juice	Small intestine
	Sucrase, maltase, lactase	Intestinal juice	Small intestine

Hormones released by the gastrointestinal mucosa stimulate the secretion of digestive enzymes and bile and influence the motility (peristalsis) of the stomach and intestines. Starches and disaccharides are digested to monosaccharides; fats are digested to fatty acids and glycerol; proteins are digested to amino acids. During digestion vitamins and minerals are liberated from these large organic molecules. SEE: *intestinal hormone*.

artificial d. Digestion occurring outside the living organism by an enzyme.

chemical d. The conversion of complex food molecules into simpler molecules by digestive enzymes. SEE: table.

duodenal d. That part of digestion that occurs in the duodenum where stomach contents mix with biliary and pancreatic secretions. The duodenum absorbs iron, vitamin B₁₂, and other essential nutrients. SEE: *duodenum*.

extracellular d. Digestion outside a cell, as of tissue by bacterial enzymes (toxins).

gastric d. That part of digestion that takes place in the stomach. SEE: *stomach*.

intestinal d. That part of digestion that occurs in the intestine. SEE: *absorption*; *large intestine*; *small intestine*.

intracellular d. The consumption and chemical degradation of materials ingested by cells (e.g., bacteria, viruses, or large molecules) within vacuoles in the cytoplasm.

lipolytic d. The conversion of neutral fats by hydrolysis into fatty acids and glycerol; fat splitting.

mechanical d. The conversion of food into small pieces by chewing, churning of the stomach, or the emulsifying action of bile salts, exposing more surface area to digestive enzymes.

oral d. That part of digestion that takes place in the mouth. It includes the physical process of chewing food and the chemical process of starch splitting by the enzyme amylase, present in the saliva.

pancreatic d. The digestion of proteins and fats by pancreatic enzymes released into the intestine.

parenteral d. The digestion of foreign substances by body cells as opposed to enteral digestion, which occurs in the alimentary canal.

salivary d. Digestion of starches by salivary amylase.

self-d. Autodigestion.

digestive (dī-jēs'tiv) Pert. to digestion.

digestive juice One of several secretions that aid in processes of digestion.

digestive system The alimentary canal (oral cavity, pharynx, esophagus, stomach, small and large intestines) and the accessory organs (teeth, tongue, salivary glands, liver, and pancreas). SEE: *illness*; *digestion*.

digit (dij'it) *pl.* **digits** [L. *digitus*, finger]

A finger or toe. **digital** (-i-tāl), *adj.*

digital 1. Pert. to a digit, e.g., a finger or toe. 2. Pert. to numbers, i.e., to variables that can be assigned different numerical values.

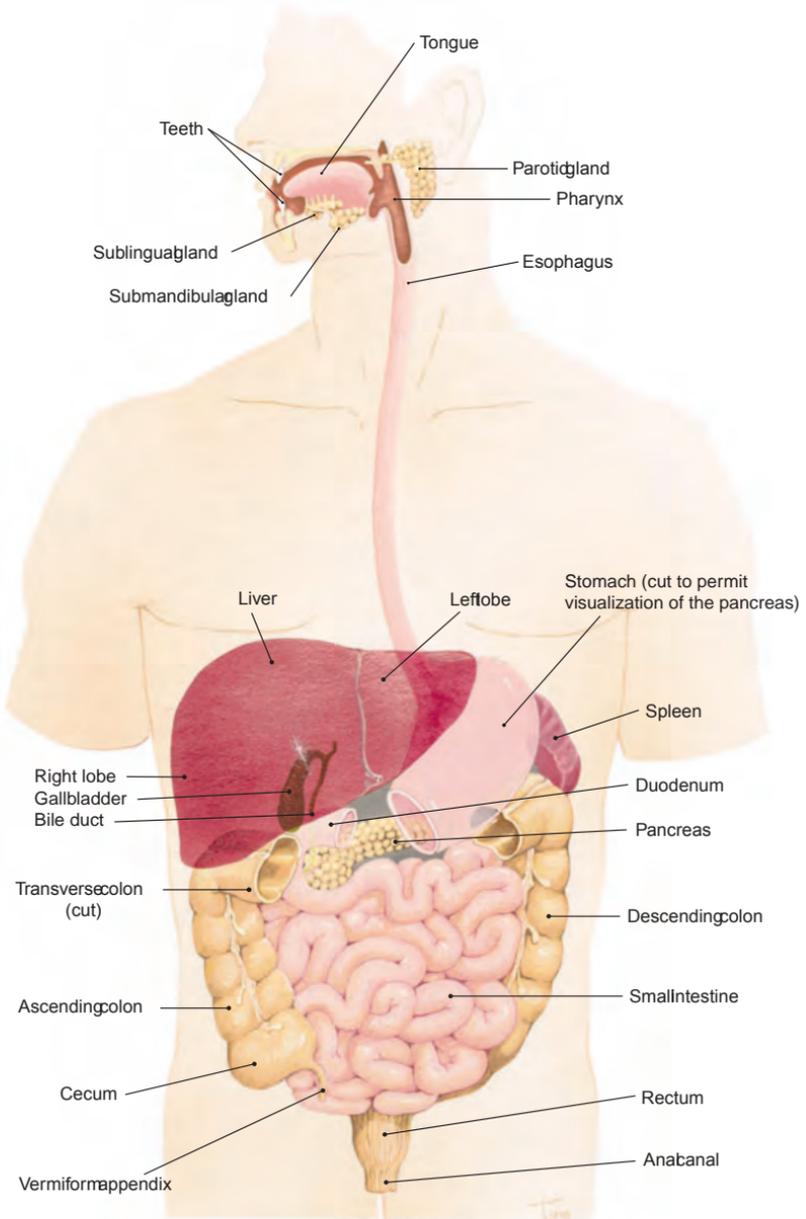
digital amniotome A small apparatus that fits over the tip of the index finger. A small knifelike projection at the end of the device is used to puncture the bag of waters before delivery of the fetus. This usually expedites progression of labor.

digitalis (dij'ī-tāl'is) [L. *digitus*, finger] An antiarrhythmic and cardiotoxic drug, derived from the dried leaves of *Digitalis purpurea*, the common foxglove. It is also found in smaller quantities in the leaves of other plants, such as rhododendrons. SEE: *Poisons and Poisoning Appendix*.

ACTION/USES: Digitalis glycosides increase the force of myocardial contraction, increase the refractory period of the atrioventricular node, and, to a lesser degree, affect the sinoatrial node. Digitalis increases cardiac output by increasing the contractility of cardiac muscle. Digitalis is used to treat patients with congestive heart failure; it contributes to an improvement in exercise tolerance in these patients. Digitalis glycosides can also be used to control heart rate in patients with atrial fibrillation, atrial flutter, and supraventricular tachycardias.



Potassium depletion, which may accompany diuresis, sensitizes the myocardium to digitalis and may permit toxicity to develop with what would otherwise be the usual dose. Patients with acute myocardial infarction, severe pulmonary disease, or far-advanced heart failure may be more sensitive to digitalis and prone to develop arrhythmias. Calcium affects the heart in a manner similar to that of digitalis; its use in a digitalized patient may produce serious arrhythmias. In myxedema, digitalis requirements are decreased because the excretion rate of the drug is decreased. Patients with incomplete atrioventricular block (esp. those with Stokes-Adams attacks) may develop complete heart block if given digitalis. Because renal insufficiency delays the excretion of digitalis, the dose of the drug must be decreased in patients with this problem. Digitalis glycosides interact with many other drugs used to treat patients with heart failure (e.g., warfarin and amiodarone). Patients taking agents that alter drug levels of digitalis may need frequent clinical assessment to prevent digitalis toxicity. Elderly patients, in whom the drug is most often used, are at greatest risk for digitalis toxicity.



THE DIGESTIVE SYSTEM

With spleen shown

digitalis poisoning SEE: *poisoning, digitalis*.

digitalization (dij'ī-tāl-i-zā'shūn) **1.** Subjection of an organism to the action of digitalis. **2.** Providing a loading dose of digoxin to a patient, to reach a therapeutic drug level rapidly.

digital portfolio E-portfolio.

digital radiography Radiography using computerized acquisition of data for imaging instead of conventional or analog film and intensifying screen imaging.

digitate (dij'ī-tāt') [L. *digitus*, finger]

Having finger-like impressions or processes.

digitation (dĭj-ĭ-tā'shŭn) A finger-like process.

Digitek (dĭ'jĭ-tĕk') SEE: *digoxin*.

digitī (dĭj'ĭ-tī) Pl. of digitus.

digitoxin (dĭj-ĭ-tŏk'sĭn) A cardiotoxic glycoside obtained from various species of foxglove, used infrequently to treat heart failure and atrial arrhythmias. SEE: *digitalis*.

digit span test A test of immediate memory. The patient is asked to repeat a string of numerals spoken by the examiner. The string is made progressively longer in order to determine the numerals that can be recalled. Normally six or seven numbers can be repeated. SEE: *memory*; *object span test*; *temporal-sequential organization*.

digitus (dĭj'ĭ-tŭs") [L] A finger or toe.

diglossia (dĭ-glŏs'ē-ā) [Gr. *dis*, double, + *glossa*, tongue] The condition of having a double tongue.

diglyceride (dĭ-glĭs'ēr-ĭd) A glyceride combined with two fatty acid molecules. SEE: *triglycerides*.

dignathus (dĭg-nā'thŭs) [r + *gnathos*, jaw] Having two jaws due to a congenital deformity.

dignity, risk for compromised human At risk for perceived loss of respect and honor. SEE: *Nursing Diagnoses Appendix*.

digoxin (dĭ-jŏk'sĭn) The most frequently prescribed digitalis glycoside. It may be used orally or intravenously to treat patients with congestive heart failure, atrial fibrillation, atrial flutter, and supraventricular tachycardias.

digoxin immune Fab (ovine) for injection A monoclonal antibody for use in treating life-threatening overdose of digoxin or digitoxin. This fragment antigen binding (Fab) substance combines with molecules of digoxin or digitoxin, which are then excreted by the kidneys.

dihydric (dĭ-hĭ'drĭk) A compound containing two hydrogen atoms.

dihydrolipoamide dehydrogenase (dĭ'hĭ'drŏ-lĭp"ŏ-ām'ĭd") The flavoprotein catalyst of the reoxidation of nicotinamide-adenine dinucleotide (NAD) or nicotinamide-adenine dinucleotide phosphate (NADP) by the mitochondrial electron transport chain. SYN: *diaphorase*.

dihydropyridine calcium antagonist A calcium channel blocking drug that resembles or is based on pyridine. It is a potent relaxer of smooth muscle cells and is used to treat hypertension among other diseases and conditions.

dihydrosphingosine (dĭ-hĭ'drŏ-sfĭng'gŏ-sĕn) CH₃—[CH₂]₁₄—CHOH—CH(NH₂)—CH₂OH; a long-chain amino alcohol present in sphingolipids, also known as sphinganine. SEE: *sphingolipid*; *sphingosine*.

dihydrotachysterol (dĭ-hĭ'drŏ-tāk-ĭs'tĕr-ŏl) A hydrogenated tachysterol; a steroid obtained by irradiation of ergosterol. It aids the absorption of calcium from the digestive tract in hypoparathyroidism.

dihydroxycholecalciferol (dĭ'hĭ-drŏk"sĕ-kŏ"lĕ-kāl-sĭf'ĕ-rŏl) One of the vitamin D analogs and metabolites that influence the body's absorption and use of calcium and phosphorus. Vitamin D and its analogs prevent and are used to treat rickets, osteodystrophy, hypocalcemia, and hypophosphatemia. SEE: *Vitamins Appendix*.

3,4-dihydroxyphenylalanine (dĭ-hĭ-drŏk"sĕ-fĕn"ĭl-āl'ā-nĕn) **1.** Dopa. **2.** L-phenylalanine, the primary ingredient in the artificial sweetener, aspartame.

diisocyanate (dĭ-ĭ"sŏ-sĭ-ān-āt") Any of a group of low molecular weight compounds used to manufacture polyurethanes in paints, varnishes, and other industrial applications. Diisocyanates are a common cause of occupational asthma.

diktyoma (dĭk'tĭ-ŏ-mă) [Gr. *diktyon*, net, + *oma*, tumor] A tumor of the ciliary epithelium.

dilaceration (dĭ'lās-ĕr-ā'shŭn) [L. *dilacerare*, to tear apart] **1.** A tearing apart, as of a cataract. SEE: *discission*. **2.** Bending of the root of a tooth due to injury during development.

Dilacor XR Diltiazem.

dilatant (dĭ-lā'tānt) [L. *dilatare*, to enlarge] Anything that causes dilation.

dilatation (dĭl'ā-tā'shŭn) **1.** Expansion of an organ or vessel. **2.** Expansion of an orifice with a dilator.

cervical d. The gradual opening of the cervical os during labor to allow the fetus to leave the uterus.

digital d. Dilatation of an opening or a cavity by use of the fingers.

heart d. SEE: *under dilation of the heart*.

stomach d. Distention of the stomach caused by food or gas. Acute dilatation of the stomach or acute gastro-mesenteric ileus may occur as a postoperative or postpartum condition and usually results from reflex spasm of the gastric outlet rather than mechanical obstruction of the organ.

dilation **1.** Expansion of an orifice with a dilator. **2.** Expansion of an organ, orifice, or vessel. SYN: *dilatation*.

dilation and curettage ABBR: D and C. An out-patient surgical procedure that expands the cervical canal of the uterus (dilation) so that the surface lining of the uterine wall can be scraped or sampled (curettage). The procedure may be used to treat dysfunctional uterine bleeding or postmenopausal bleeding. It is used to evaluate endometrial tissues for evidence of cancer and to perform abortions or remove retained products

of conception after incomplete miscarriages.

PATIENT CARE: Preoperatively, the patient's understanding of the procedure is ascertained, with any misconceptions clarified. She is told what she will experience and what to expect after the procedure. The patient usually will be allowed nothing to eat or drink after midnight. Intravenous access is initiated for administration of fluids and short-acting anesthetics. Perineal shave, enema, and vaginal douche usually are not performed unless they are the preference of the gynecologic surgeon.

Postoperatively, the patient's vital signs are assessed frequently until stable, and the amount and type of vaginal bleeding are monitored, with a pad count kept. Once the patient has voided and is tolerating oral intake, she is discharged to the care of her partner or other support person. She should not drive if general anesthesia or a narcotic analgesic was administered. Inpatient care is required only in the case of emergencies with severe hemorrhage or excessive blood loss.

Postdischarge care is reviewed with the patient, including concerns to report. The patient should not need to change sanitary pads more than hourly and should keep a pad count, noticing if the pads are soaked through. She may pass a few small clots but should report bleeding that exceeds saturating one pad per hour for a total of eight over the first 8 hr. The patient then should experience only spotting, which may last a few weeks. Usually, she should not use tampons for at least 1 week after surgery. Abdominal cramping is not unusual for the first few days; it usually can be relieved by taking a mild analgesic (e.g., acetaminophen, aspirin) or placing a heating pad or hot water bottle on the lower abdomen. The patient should check her temperature every 4 hours for 2 days and notify her care provider of any elevation over 100°F. Usually, the patient is told to refrain from intercourse for 2 weeks or until her postoperative visit, scheduled according to the gynecologic surgeon's wishes. SEE: *Nursing Diagnoses Appendix*.

dilation and evacuation ABBR: D and E.

During the second trimester, removal of the products of conception by suction curettage and use of forceps.

dilator (dī-lā'tor) [L. *dilatare*, to expand]



An instrument for dilating muscles or for stretching cavities or openings.

Barnes' d. A rubber bag filled with fluid for dilation of the cervix uteri.

Goodell's d. An instrument similar to the Bossi dilator except that it has three prongs.

gynecological d. An instrument for dilating the cervix uteri.

Hegar's d. Graduated metal sounds that are inserted into the cervical canal and cause a graded dilation.

hygroscopic d. A gynecological dilator made of materials that swell after absorbing fluids from body tissues. It is used to facilitate dilation of the cervix uteri (uterine cervix), e.g., in induction of labor or in dilation and curettage.

tent d. hygroscopic dilator. SYN: *tent dilator*. SEE: *Laminaria digitata*.

vaginal d. A glass, plastic, or metal device for dilating the vagina.

dildo, dildoe (dīl'dō) An artificial penis-shaped device to simulate sexual intercourse.

dill (dīl) A hardy annual, *Anethum graveolens*, whose leaves and seeds are used primarily to flavor foods. It is also used as an antifatulent and antispasmodic, but scientific evidence of its effectiveness is lacking.

Diltia XT Diltiazem.

diltiazem (dīl-tī'ā-zēm) A calcium channel blocker administered orally or intravenously to manage hypertension, angina pectoris, Prinzmetal's angina, supraventricular tachyarrhythmias, and rapid ventricular rates in atrial flutter or fibrillation. Its therapeutic classes are antianginal, antiarrhythmic, and antihypertensive. SYN: *Cardizem*; *Diltia XT*; *Dilacor XR*.

diluent (dīl'ū-ēnt) [L. *diluere*, to wash away] An agent that reduces the potency or concentration of the substance or solution to which it is added.

dilution (dī-loo'shūn) 1. The process of attenuating or weakening a substance. 2. A diluted substance.

dimension, vertical A vertical measurement of the face; used in dentistry for growth studies and for reference in denture placement.

dimer (dī'mēr) 1. In chemistry, esp. polymer chemistry, a combination of two identical molecules to form a single compound. 2. In virology, a capsomer containing two subunits.

dimercaprol (dī-mēr-kāp'rōl) C₃H₆OS₂; a compound, 2,3-dimercaptopropanol, used as an antidote in poisoning from heavy metals such as arsenic, gold, and mercury. It is a colorless liquid with a disagreeable odor. Mixed with benzyl benzoate and oil, it is administered intramuscularly.

dimethylamine (dī-mēth'īl-ām'in) (CH₃)₂NH; a malodorous product of decay of materials that contain proteins.

p-dimethylaminoazobenzene (dī-mēth'īl-ām'ī-nō-āz'ō-bēn'zēn) A carcinogenic dye, butter yellow.

4-dimethylaminopyridine (dī-mēth'īl-ām'ī-nō-pēr'ī-dēn) A catalyst used in the synthesis of organic chemicals to add acetyl groups to molecules.

dimethylmercury (dī-mēth-īl-mēr'kū-rē)

An exceptionally toxic form of mercury that may cause disease and death even after minute exposures. It is readily absorbed through the skin and respiratory tract. SEE: *mercury poisoning*.

dimethyl phthalate (dī-mēth'īl thāl'āt)

An insect repellent.

dimethyl sulfoxide (dī-mēth'īl sūlf-ōks'id) ABBR: DMSO.

A solvent used to treat interstitial cystitis. The drug was previously believed to improve the absorption of medications from the skin, and it was used to treat rheumatic diseases.

dimethyltryptamine (dī-mēth'īl-trīp'tā-mēn) ABBR: DMT.

An agent that in low doses has hallucinogenic action like that of LSD.

dimorphous (dī-mor'fūs) [" + *morphe*, form]

Occurring in two different forms.

dimple

A small depression in the skin, esp. of the cheek or chin.

dimple sign

A sign used to differentiate a benign lesion, dermatofibroma, from nodular melanoma, which it may mimic. On application of lateral pressure with the thumb and index finger, the dermatofibroma dimples or becomes indented; melanomas, melanocytic nevi, and normal skin protrude above the initial plane.

dimpling

The formation of slight depressions in the flesh due to retraction of the subcutaneous tissue. It occurs in certain carcinomas, such as cancer of the breast. SEE: *peau d'orange*.

Dinoflagellata (dī'nō-flāj'ē-lā'tā) [" + *flagellum*, whip]

A phylum of the kingdom Protista; photosynthetic unicellular organisms that are part of the phytoplankton in fresh and ocean water. Some marine species bloom explosively in what are called "red tides"; shellfish that feed on the dinoflagellates are toxic to humans (paralytic shellfish poisoning). Another species produces ciguatera toxin, which is poisonous to fish and to humans who consume such fish.

dinucleotide (dī-nū'klē-ō-tīd) The product of cleaving a polynucleotide.**Diocophyma** (dī-ōk'tō-fī'mā)

A genus of roundworms found in dogs but rarely in humans.

Diogenes syndrome (dī-ōj'ē-nēz) [Diogenes, Gr. philosopher, 4th century B.C.]

A lack of interest in personal cleanliness or cleanliness of the home, usually occurring in elderly individuals who live alone. Affected persons usually are undernourished but not necessarily from poverty. This condition occurs in all socioeconomic circumstances. It may be associated with excessive saving of items, e.g., old newspapers; social retreat; and rejection of assistance.

dioptr (dī-ōp'tēr, dī'ōp-)

through, + *optos*, visible] The refractive power of a lens; the reciprocal of the

focal length expressed in meters. It is used as a unit of measurement in refraction. **dioptric** (-ōp'trik), *adj.*

dioptrimeter (dī'ōp-tōm'ē-tēr) [" + *metron*, measure]

A device for measuring ocular refraction.

dioptrometry (dī'ōp-tōm'ē-trē)

The determination of refraction and accommodation of the eye.

dioptrics (dī-ōp'triks)

The science of light refraction.

Dioscorea (dī'ō-skōr'ē-ā) [NL]

A genus of yams, a potato-like root vegetable used in many cultures as a source of dietary carbohydrates. There are approx. 150 species. *Dioscorea villosa*, the wild yam, is used as a source of topically applied cosmetics and plant-derived steroids.

Diovan SEE: *valsartan*.**diiovulatory** (dī-ōv'ū-lā-tō'rē)

Producing two ova in the same ovarian cycle.

dioxide (dī-ōk'sīd) [Gr. *dis*, two, + *oxys*, sharp]

A compound having two oxygen atoms per molecule.

dioxin (dī-ōk'sīn) 2,3,7,8-Tetrachloro-

benzo-*p*-dioxin (TCDD); a toxic, cancer-causing chemical. Initial exposure to this agent can produce chloracne, liver injury, and peripheral neuropathy. It has been used as a herbicide (e.g., during the Vietnam War, when it was called "agent orange") and is an unwanted pollutant released by some industrial and agricultural processes. Dioxin-like compounds are also released by the degradation of some other organic molecules. SEE: *Agent Orange*; *pentachlorophenol*; *polychlorinated biphenyls*; *2,4,5-trichlorophenoxyacetic acid*.

dioxybenzone (dī-ōks'i-bēn'zōn)

A topical sunscreen that blocks ultraviolet A and B.

dipalmityl lecithin (dī-pāl'mī-tīl) ABBR: DPL.

A major constituent of pulmonary surfactant.

dipeptidase (dī-pēp'tī-dās)

An enzyme that catalyzes the hydrolysis of dipeptides to amino acids.

dipeptide (dī-pēp'tīd,-tīd) [" + *peptin*,

to digest] A derived protein obtained by hydrolysis of proteins or condensation of amino acids.

diphallus (dī-fāl'ūs) [" + *phallos*, penis]

A condition in which there is either complete or incomplete doubling of the penis or clitoris.

diphasic (dī-fā'zīk) [" + *phasis*, a phase]

Biphasic.

diphonia (dī-fō'nē-ā) [Gr. *dis*, two, + *phone*, voice]

Diplophonia.

diphosphatidylglycerol (dī-fōs'fā-tī-dīl-glis'ēr-ōl)

An extract of beef hearts that contains phosphorylated polysaccharide esters of fatty acids. It is used in certain tests for syphilis.

2,3-diphosphoglycerate (dī'fōs-fō-glis'ēr-āt')

ABBR: 2,3-DPG. An organic phos-

phate in red blood cells that alters the affinity of hemoglobin for oxygen. Blood cells stored in a blood bank lose 2,3-diphosphoglycerate, but once they are infused, the substance is resynthesized or reactivated.

diphtheria (dif-thē'rē-ā) [Gr. *diphthera*, membrane] A rare toxin-mediated bacterial infectious disease marked by the formation of a patchy grayish-green membrane over the tonsils, uvula, soft palate, and posterior pharynx. Occasionally the skin, conjunctiva, ears, GI and urinary tracts are involved. In cutaneous diphtheria, impetiginous lesions occur. The membrane is created by a thick, inflammatory exudate. SEE: *antitoxin; exotoxin; sepsis; diphtheria toxoid*. **diphtherial** (-thē'rē-āl), *adj.*

ETIOLOGY: The causative organism is *Corynebacterium diphtheriae*. Airborne droplets transmit the organism from person to person (usually from asymptomatic carriers or convalescent patients). More people carry the disease than actually contract an active infection. An effective vaccination program has made the incidence of the disease rare in the U.S., except among groups of people who do not receive immunizations. The lack of virulent strains to reinforce immunity, however, has resulted in loss of immunity in some older adults. The incubation period is 2 to 5 days and occasionally longer.

IMMUNIZATION: Immunization is accomplished by the administration of three doses at least 4 weeks apart, beginning at 2 months of age. Diphtheria toxoid (inactivated exotoxin capable of stimulating antibody production) is given, in combination with pertussis vaccine (usually acellular pertussis) and tetanus toxoid; a fourth dose is given 1 year later. Booster doses are administered if a child under 6 years old or other close family member is exposed to diphtheria. Because effective immunity does not last longer than 10 years after the last vaccination, people should receive a booster of diphtheria toxoid every 10 years. Immunity to diphtheria is assessed by measuring antibody levels in the blood.

SYMPTOMS: Patients present with fever, malaise, cervical lymphadenopathy, and sore throat, raspy cough, hoarseness, and other croup-like symptoms. A tough yellow-white or gray-green pseudomembrane forms in the throat. It contains cellular debris and fibrin and, unlike the exudate caused by streptococci, is difficult to remove and can obstruct air flow, resulting in stridor, suprasternal retractions, tachypnea, cyanosis, and death by suffocation if not treated. As the bacteria multiply, they produce a potent exotoxin that prevents protein synthesis in cells. Once

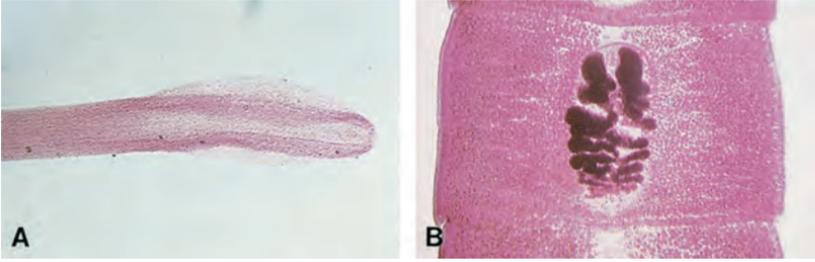
the exotoxin has spread to the bloodstream, signs of sepsis develop. The toxin can cause peripheral nerve paralysis, thrombocytopenia, renal and pulmonary involvement, and myocarditis, with ventricular fibrillation resulting in death.

DIFFERENTIAL DIAGNOSIS: Similar symptoms may be due to tonsillitis, scarlet fever, acute pharyngitis, streptococcal sore throat, peritonsillar abscess, infectious mononucleosis, Vincent's angina, acute moniliasis, primary HIV retroviral syndrome, and staphylococcal infections in the respiratory tract following chemotherapy. Examination of a smear from the infected area is advisable; cultures should be obtained in every instance to confirm the diagnosis. In the laryngeal type of diphtheria, edema of the glottis, foreign bodies, and retropharyngeal abscess must be considered.

TREATMENT: If an adult or nonimmunized child shows signs of infection, diphtheria antitoxin, containing preformed antibodies, is administered immediately, without waiting for laboratory confirmation of the diagnosis. Because antitoxin is made from animal serum, type III hypersensitivity must be assessed first with an intradermal injection of 1:10 dilute antitoxin. If testing is positive, desensitization should be attempted even though it is time-consuming and not without risk. When antitoxin is administered, epinephrine 1:1000 and resuscitation equipment should be on standby, and the patient should be closely observed for anaphylaxis. Intravenous erythromycin administered for 7 to 14 days may decrease exotoxin production by *C. diphtheriae* and limit spread of the disease although it may sometimes cause thrombophlebitis.

PATIENT CARE: The patient is monitored for respiratory distress, sepsis, and myocardial or neural involvement. Humidified oxygen is administered to maintain saturated hemoglobin (SaO₂) above 92%, and the patient is assessed for increased ventilatory effort, use of accessory muscles, nasal flaring, stridor, cyanosis, and agitation or decreased level of consciousness. If airway obstruction occurs, intubation, tracheostomy, mechanical ventilation, or other life-support may be required. Hypotension, tachycardia, and crackles on auscultation may indicate heart failure. Sepsis may produce fever, tachycardia, and hypotension. Neuromuscular involvement is assessed through weakness, paralysis, or sensory changes. All data are clearly documented. Patients who receive antitoxin are closely observed for local or systemic anaphylaxis.

Strict isolation is maintained until



DIPHYLLOBOTHRIUM LATUM

(A) Scolex with grooved suckers (orig. mag. $\times 5$), (B) proglottid (orig. mag. $\times 10$)

two consecutive negative nasopharyngeal cultures have been obtained at least 1 week after drug therapy ceases. Nonimmunized members of the patient's household are advised to receive diphtheria toxoid appropriate for age and to complete the proper series of diphtheria immunizations. Even if previously immunized, a person should receive a booster immunization if more than 10 years has passed since his or her last vaccination. All cases of diphtheria must be reported to local public health authorities. Families are prepared for a prolonged convalescence esp. if the patient has neuromuscular involvement.

cutaneous d. A skin infection, usually at the site of a wound, caused by *C. diphtheriae*, usually occurring in humid, tropical regions with poor sanitation. It is characterized by slow healing and shallow ulcers containing a tough grayish membrane. It is treated with diphtheria antitoxin and penicillin or erythromycin.

laryngeal d. A complication of diphtheria caused by extension of the membrane from the pharynx with gradual occlusion of the airway. The signs are restlessness, use of accessory respiratory muscles, and development of cyanosis. If this condition is not remedied effectively, death results.

surgical d. Diphtheritic membrane formation on wounds.

diphtheria antitoxin **1.** The protective antibody formed after exposure to *Corynebacterium diphtheriae* or its toxoid. The object of immunization with diphtheria toxoid is to develop high enough titers of this antibody to prevent diphtheria on subsequent exposures. **2.** Solution containing preformed antibodies to *C. diphtheriae*, used to treat diphtheria. Skin tests to assess for type III hypersensitivity are necessary before administration because the solution is obtained from animal serum.

diphtheria toxin for Schick test The toxin used for determining immunity to diphtheria. SEE: *Schick test*.

diphtheroid (dif'thē-royd) [*ph* + *eidōs*, form, shape] **1.** Resembling diphtheria or the bacteria that cause diphtheria. **2.** A false membrane or pseudomembrane not due to *Corynebacterium diphtheriae*.

Diphylobothrium (dī-fil'ō-bōth'rē-ūm) [*ph* + *phyllon*, leaf, + *bothrion*, pit] A genus of tapeworm belonging to the order Pseudophyllidea and marked by possession of a scolex with two slitlike grooves or bothria. Formerly called *Dibothriocephalus*.

D. cordatum The heart-shaped tapeworm, a small species infesting dogs and seals in Greenland, formerly known as *D. mansoni*. The plerocercoids are occasionally found in humans.

D. erinacei A species infesting dogs, cats, and other carnivores. Larval stages are occasionally found in humans.

D. latum The broad or fish tapeworm. The adult lives in the intestine of fish-eating mammals, including humans. The largest tapeworm infesting humans, it may reach a length of 50 to 60 ft or 15.2 to 18.3 m (average 20 ft or 6.1 m). The eggs develop into ciliated larvae that are eaten by small crustaceans called copepods. The larvae pass through several stages in the copepods and develop further after the copepods are eaten by fish, finally encysting in fish muscle. People acquire the infection by eating raw or poorly cooked fish that contains cysts. Infection can be prevented by thoroughly cooking all freshwater fish or by keeping the fish frozen at -10°C (14°F) for 48 hr before eating. SEE: *illus.*

SYMPTOMS: Patients often report abdominal pain, loss of weight, digestive disorders, progressive weakness, and symptoms of pernicious anemia because the worm absorbs ingested vitamin B_{12} from the gastrointestinal tract.

TREATMENT: Praziquantel is used to treat the infestation.

diphyodont (dif'ē-ō-dōnt) [*ph* + *phyein*, to produce, + *odous*, tooth] Having

two sets of teeth, a primary and a permanent set, as in humans.

diplocusis (dĭp'łă-kū'sis) [l' + *akusis*, hearing] A disturbed perception of pitch in which two tones are heard for every sound produced.

diplegia (dĭ-plĕ'jĕ-ă) [Gr. *dis*, twice, + *plege*, a stroke] **1.** Paralysis of similar parts on both sides of the body. **2.** In cerebral palsy, excessive stiffness usually occurs in all limbs but greater stiffness in the legs than in the arms. **dipleptic** (-jik), *adj.*

infantile d. Birth palsy.

spastic d. Congenital spastic stiffness of the limbs.

diplo- Combining form meaning *double* or *twin*.

diploalbuminuria (dĭp'łô-ăl-bū'mĭn-ŭ-rĕ-ă) [Gr. *diploous*, double, + L. *albumen*, white of egg, + Gr. *ouron*, urine] The coexistence of physiological and pathological albuminuria.

diplobacillus (dĭp'łô-bă-sĭl'ŭs) [l' + L. *bacillus*, a little stick] A pair of bacilli, linked end to end.

diplobacterium (dĭp'łô-băk-tĕr'ĕ-ŭm) [l' + *bakterion*, little rod] An organism made up of two adherent bacteria.

diplocardia (dĭp'łô-kăr'dĕ-ă) [l' + *kardia*, heart] A condition in which the two lateral halves of the heart are partially separated by a groove.

diplocephaly (dĭp'łô-sĕf'ă-lĕ) [l' + *kephale*, head] The condition of having two heads.

diplococcemia (dĭp'łô-kök-sĕ'mĕ-ă) [l' + *kokkos*, berry, + *haima*, blood] The presence of diplococci in the blood.

diplococcus (dĭp'łô-kök'ŭs) *pl.* **diplococci** Any of various spherical bacteria appearing in pairs. SEE: *bacterium* for illness; *Neisseria gonorrhoeae* for illness.

diplocoria (dĭp'łô-kō-rĕ-ă) [l' + *kore*, pupil] A double pupil in the eye.

diploë (dĭp'łô-ĕ) [Gr. *diploë*, fold] Spongy bone containing red bone marrow between the two layers of compact bone of the skull bones. **diploëtic** (-lō-ĕ'tic), *adj.*

diplogenesi (dĭp'łô-jĕn'ĕ-sĭs) [Gr. *diploous*, double, + *genesis*, generation, birth] The condition of having two parts or producing two substances; the production of a double fetus or the doubling of some fetal parts.

diploid (dĭp'loyd) [l' + *eidōs*, form, shape] Having two sets of chromosomes; said of somatic cells, which contain twice the number of chromosomes present in the egg or sperm. SEE: *chromosome*; *meiosis*; *mitosis*.

diplokaryon (dĭp'łô-kăr'ĕ-ŏn) [l' + *karyon*, nucleus] A diploid nucleus.

diplomyelia (dĭp'łô-mĭ-ĕ-lĕ-ă) [l' + *myelos*, marrow] A condition in certain types of spina bifida in which the spinal cord appears to be doubled due to a lengthwise fissure.

diploneural (dĭp'łô-nŭ-răł) [l' + *neuron*, nerve] Having two nerves from different origins, as certain muscles.

diplopagus (dĭp-lŏp'ă-gŭs) [l' + *pagos*, a thing fixed] Conjoined and sharing some organs; said of twins with this condition.

diplophonia (dĭp-lŏ-fŏ'nĕ-ă) [l' + *phone*, voice] Simultaneous production of two different voice tones. SYN: *diphonia*.

diplopia (dĭp-lŏ-pĕ-ă) [l' + *ope*, sight] Two images of an object seen at the same time. SYN: *double vision*.

binocular d. Double vision occurring when both eyes are open. It results from misalignment of the ocular muscles.

crossed d. Binocular vision in which the image is on the side opposite to the eye that sees it.

homonymous d. Uncrossed d.

monocular d. Double vision with one eye.

uncrossed d. Double vision in which the image appears on the same side as the eye that sees it. SYN: *homonymous diplopia*. SEE: *crossed d.*

vertical d. Double vision with one of two images higher than the other.

diplotene (dĭp'łô-tĕn) The stage in the first prophase of meiosis when spindle fibers form and the homologous chromosomes begin to separate.

dipole (dĭ'pŏl) A molecule in which each end has an equal but opposite charge. The intensity of the charge is given by its dielectric moment or constant.

dipping **1.** Palpation of the liver by a quick depressive movement of the fingers while the hand is held flat on the abdomen. **2.** Immersion of an object in a solution, esp. applied to the dipping of cattle or dogs for tick control. **3.** A drop in blood pressure of 10% or more that occurs at night or during sleep. Nocturnal blood pressure dipping is a normal phenomenon. Its absence is associated with a variety of illnesses, including obstructive sleep apnea.

diprosopus (dĭp-rŏ-sŏp'ŭs) [Gr. *dis*, twice, + *prosonon*, face] A malformed fetus with a double face.

-dips Combining form indicating *thirst*.

dipstick (dĭp'stik) A chemical-impregnated paper strip used for analysis of body fluids, principally urine.

Diptera (dĭp'tĕr-ă) [Gr. *dipteros*, having two wings] An order of insects characterized by sucking or piercing mouth parts, one pair of wings, and complete metamorphosis. It includes the flies, gnats, midges, and mosquitoes. It contains many species involved in the transmission of pathogenic organisms, such as malaria.

dipterous (dĭp'tĕr-ŭs) Having two wings; characteristic of the order Diptera.

dipygus (dĭ-pĭ'gŭs) [Gr. *dis*, two, +

pyge, rump] Having a double pelvis; said of a congenitally deformed fetus.

dipylidiasis (dīp'ī-lī-dī'ā-sīs) Infestation with the tapeworm *Dipylidium caninum*.

Dipylidium (dīp'ī-līd'ē-ūm) [Gr. *dipyllos*, having two entrances] A genus of tapeworms belonging to the family Dipylidae that infests dogs and cats.

D. caninum A common parasite of dogs and cats. Occasionally, human infestation may occur through the accidental ingestion of lice or fleas, which are the intermediate hosts.

diquat (dī'kwät) A herbicide, chemically related to paraquat, that releases hydrogen peroxide and oxygen radicals when consumed. It can cause nausea, vomiting, renal failure, altered mental status, and cardiac arrhythmias.

directed differentiation The use of growth factors to stimulate stem cells to specialize into specific adult cells.

direct immunofluorescence test Direct fluorescent antibody.

direction, direct medical A physician giving medical orders on-line, on the telephone or radio, to the EMS provider or to other health care professionals (e.g., athletic trainers, occupational therapists, physical or speech therapists) for the emergency care of a patient in the out-of-hospital environment.

directionality The ability to perceive one's position in relation to the environment; the sense of direction. Problems with directionality are frequently found in children with learning disabilities or suspected minimal brain dysfunction.

direct light reflex Prompt contraction of the sphincter of the iris when light entering through the pupil strikes the retina.

directly observed therapy ABBR: DOT. Oral administration of a drug or of drugs to a patient under supervision to ensure the drug is swallowed. DOT is esp. important in treating patients with infectious diseases (e.g., tuberculosis) in which development of drug-resistant microorganisms is likely to threaten public health if the drug is not taken exactly as prescribed.

director A grooved device for guiding a knife in surgery.

direct reflex A reflex in which response occurs on the same side as the stimulus.

direct-to-consumer advertising (dī-rēkt' too kōn-soo'mēr äd'ver-tī-zīng) The marketing and sales of drugs, diagnostic or therapeutic services, and other medically related products or services by their owner or manufacturer to the general public by means of television, radio, the Internet, and direct mail. The most commonly advertised drugs are medications for allergies, arthritis, depression, erectile dysfunction, gastro-

esophageal reflux, and high blood pressure.

dirigomotor (dīr'ī-gō-mō'tor) [L. *dirigere*, to direct, + *motor*, mover] Controlling or directing muscular activity.

Dirofilaria (dī'rō-fi-lā'rē-ä) A genus of filarial worms.

D. immitis Heartworm, a species of filariae that occurs in dogs but may infest humans.

dirty bomb A weapon that disperses into the environment low-level radioactive material bonded to a conventional explosive.

dis- [L. *dis*, apart] Prefix indicating *free of, undone from*.

dis- [Gr. *dis*, twice] Prefix meaning *double or twice*.

disability (dīs'ä-bil'ī-tē) Any physical, mental, or functional impairment that limits a major activity. It may be partial or complete. The definition of disability is controversial. To some experts it refers to any restriction or inability to perform socially defined roles or tasks that are expected of an individual in specific social contexts. Another concept of disability is that it is any restriction or lack of ability to perform tasks or roles in the manner previously considered normal for an individual. Contemporary views of disability recognize that characteristics of the environment interact with an individual's abilities to determine functional performance. In this view, the presence of disability is not entirely determined by bodily function or impairment. SYN: *activity limitation; functional limitation*. SEE: *death for table; handicap*.

developmental d. A condition due to congenital abnormality, trauma, deprivation, or disease that interrupts or delays the sequence and rate of normal growth, development, and maturation.

excess d. The discrepancy that exists when a person's functional limitations are greater than those warranted by the objective degree of impairment. Often excess disability is created by attitudes and policies that create barriers to a disabled person's full participation.

learning d. Learning disorder.

disability analysis The attempt to determine the relative importance of life events that contribute to functional impairments. Determining the relationship between occupational or other exposures and the development of chronic illness is often a complex task. For example, chronic obstructive lung diseases may result from nonoccupational factors such as tobacco abuse, or from genetic illnesses such as alpha₁-antitrypsin disease or from job-related exposures to chemicals, dusts, or asbestos. Similarly, hearing loss may occur as a natural consequence of aging or as a result of exposures to high levels of noise

at work (e.g., with heavy machinery) or during recreation (motorcycle riding or snowmobiling).

Disability Rating Scale An instrument used to gauge the functional capabilities and progress of a person with moderate to severe brain injury. A person who has no deficits after recovery from brain injury receives a score of 0 (not impaired). A severely impaired person who is unemployable, unable to care for himself, and unable to open his eyes, move, or speak receives the lowest score: 29.

disaccharidase (dī-sāk'ă-rī-dās) A group of enzymes that split disaccharides into monosaccharides.

disaccharide (dī-sāk'ī-rīd) [Gr. *dis*, twice, + *sakkharon*, sugar] A carbohydrate composed of two monosaccharides. SEE: *carbohydrate*.

disarticulation (dis'ăr-tīk'ū-lă'shŭn) [L. *dis*, apart, + *articulus*, joint] Amputation through a joint.

disassimilation (dis'ă-sīm'ī-lă'shŭn) [ʹ + *ad*, to, + *similare*, to make like] The conversion of assimilated material into less complex compounds for energy production.

disaster [ʹ + L. *astrum*, star, ill-starred] A natural or man-made occurrence such as a flood, tornado, earthquake, forest fire, bridge or building collapse, nuclear reactor accident, war, explosion, terrorist attack or bombing, or train wreck. The need for emergency evacuation and medical services is increased during and following a disaster. It is essential that hospitals and community services have a plan for the expeditious mobilization and use of their services at such times.

chemical d. The accidental release of large amounts of toxins into the environment. The effects suffered by people in the area are determined by the toxicity of the chemical, its speed in spreading, its composition (liquid, solid, or gaseous), and the spill site, esp. its proximity to a water supply or buildings. The major effect may be due to the chemical itself or to a resulting fire or explosion. The catastrophic release of chemicals may overwhelm, at least temporarily, local or regional health care resources. SEE: *chemical warfare*.

disaster medical assistance team ABBR: DMAT. A group of specially trained and readily mobilized medical and rescue workers available to respond to a mass casualty incident on short notice. Team members include physicians, nurses, paramedics, firefighters, and other support personnel.

Disaster Mortuary Operational Response Team ABBR: DMORT. A specially trained group of citizens trained to evaluate deceased victims of natural and man-made disasters and to provide them with mortuary services. DMORT

members participate in the evaluation of the cause of mass deaths, in the identification of the dead, and in the processing and disposition of remains.

disaster planning A procedure for coping with mass casualties or massive disruptions of normal health care services as a result of human or natural catastrophes. In the U.S., the Joint Commission on the Accreditation of Health Organizations (JCAHO) requires that all hospitals have a written plan in place and that drills be performed twice a year to assess the plan's usefulness. The plan should address major problems such as airplane crashes, contamination of the water supply, earthquakes, electrical power failures, explosions, famine, fire, flood, or terrorist attacks. The plan may be for a local community, region, or state and should link health care resources with other public services and the media. The Federal Aviation Administration (FAA) also requires disaster planning and drills at airports on a regular basis.

disaster recovery plan A document defining the resources, actions, tasks, and data required to manage the recovery of lost databases, programs, or other computing functions in the event of catastrophic damage to the computing infrastructure of an organization.

disc SEE: *disk*.

discharge (dis-chărj', dis'chărj) [ME. *dischargen*, to discharge] **1.** To release from care; done by a physician, other medical care worker, or a medical care facility. **2.** The escape (esp. by violence) of pent-up or accumulated energy or of explosive material. **3.** The flowing away of a secretion or excretion of pus, feces, urine, and so forth. **4.** The material thus ejected.

cerebrocortical d. The electrical activity of an injured or malfunctioning portion of the cerebral cortex that gives rise to a seizure.

convective d. The discharge from a high-potential source in the form of electrical energy passing through the air to the patient.

disruptive d. The passage of current through an insulating medium due to the breakdown of the medium under electrostatic stress.

lochial d. Uterine excretion following childbirth. SEE: *lochia*.

discharge lounge A hospital unit where patients are held pending their release from emergency departments, urgent care settings, wards, or short-stay units. The lounge makes acute patient care resources available for active use and streamlines patient throughput.

discharge planning Any strategy used to facilitate outpatient care for someone currently receiving inpatient health services. It may include the identification

of the proposed date of hospital discharge, a program for the use of professional or familial home health services, a review of the appropriate use of prescriptions and their side effects, instructions for the use of durable medical equipment, and a list of appointments for follow-up care.

discharge summary A summary of the hospital or clinic record of a patient, prepared when the patient is released from the medical care facility. SYN: *discharge abstract*.

discharging (dīs'chărg'ing) The emission of or the flowing out of material, as the discharge of pus from a lesion; excretion.

discipline A branch or domain of knowledge, instruction, or learning. Nursing, medicine, physical therapy, and social work are examples of health-related or professional disciplines. History, sociology, psychology, chemistry, and physics are examples of academic disciplines.

discission (dīs-sīzh'ün) [L. *dis*, apart, + *scindere*, to cut] Rupture of the capsule of the crystalline lens in cataract surgery.

disclosing agent A diagnostic aid used in dentistry to stain areas of the teeth that are not being cleaned adequately. Typically, a dye such as erythrosine sodium is used to color dental plaque so that inadequately brushed surfaces can be demonstrated to patients.

discocyte (dīs'kō-sīt") [" + "] A normally shaped red blood cell.

discogenic (dīs'kō-jën'ik) [" + *gennan*, to produce] Caused by an intervertebral disk.

discography (dīs-kōg'ră-fē) Use of a contrast medium injected into the intervertebral disk so that it can be examined radiographically.

discoid (dīs'koyd) Like a disk.

disconnection syndrome Disturbance of the visual and language functions of the central nervous system due to interruption of the connections between two cerebral hemispheres in the corpus callosum, occlusion of the anterior cerebral artery, or interruption of the connections between different parts of one hemisphere. These disorders also may be produced by tumors or hypoxia. They can manifest in several ways including the inability, when blindfolded, to match an object held in one hand with that in the other; the inability to execute a command with the right hand but not the left; when blindfolded, the ability to correctly name objects held in the right hand but not those in the left; and the inability to understand spoken language while being able to speak normally. SEE: *inattention*, *unilateral*.

discoplacenta (dīs'kō-plă-sën'tă) [Gr. *diskos*, quoit, + *plakous*, a flat cake] A disklike placenta.

discordance (dīs-kor'dăns) In genetics, the expression of a trait in only one of a twin pair. SEE: *concordance*.

discordant (dīs-kor'dănt) Resulting from or producing conflict with one's self-image.

discovery Pretrial device used to obtain or discover all information, facts, and circumstances surrounding the allegations at issue in the lawsuit so that parties can better prepare for trial. Techniques include interrogatories, requests for production of documents and things, admissions of facts, physical and mental examinations, and depositions.

discrete (dīs-krēt') [L. *discretus*, separated] Separate; said of certain eruptions on the skin. SEE: *confuent*.

discrete analysis An automated methodology in which samples are held in separate containers to be assayed. In a continuous flow system, all samples flow through the same tubing.

discrimination [L. *discriminare*, to divide] **1.** The process of distinguishing or differentiating. **2.** Unequal and unfair treatment or denial of rights or privileges without reasonable cause. Federal statutes prohibit discrimination based on age, sex, sexual preference, religion, race, national origin, and disability. **3.** The accuracy with which risk factors separate a population into the healthy and the sick.

figure-ground d. The ability to see the outline of an object as distinct from visually competing background stimuli. This ability is often impaired following central nervous system damage.

one-point d. The ability to locate specifically a point of pressure on the surface of the skin.

tonal d. The ability to distinguish one tone from another. This is dependent on the integrity of the transverse fibers of the basilar membrane of the organ of Corti.

two-point d. The ability to localize two points of pressure on the surface of the skin and to identify them as discrete sensations. SYN: *tactile discrimination*. SEE: *two-point discrimination test*.

discus (dīs'kūs) [Gr. *diskos*, quoit] Disk.

d. proligerus Cumulus oophorus.

disdiadochokinesia (dīs-dī'ă-dō'kō-kī-nē'zē-ă) [L. *dis*, apart, + Gr. *diadochos*, succeeding, + *kinesis*, movement] The inability to make finely coordinated antagonistic movements, as when quickly supinating and pronating the hand. SEE: *diadochokinesia*.

disease (dī-zēz') [Fr. *des*, from, + *aize*, ease] A condition marked by subjective complaints, a specific history, and clinical signs, symptoms, and laboratory or radiographic findings. The concepts of disease and illness differ in that disease is usually tangible or measurable,

whereas illness (and associated pain, suffering, or distress) is highly individual and personal. Thus, a person may have a serious but symptom-free disease (e.g., hypertension) without any illness. Conversely, a person may be extremely ill (e.g., with posttraumatic stress disorder) but have no obvious evidence of disease.

Particular diseases are listed under the first word. SEE: e.g., *chronic obstructive pulmonary disease*; *foot and mouth disease*; *inflammatory bowel disease*; table.

acute d. A disease having a rapid onset and relatively short duration.

anticipated d. A disease that may be predicted to occur in individuals with a certain genetic, physical, or environmental predisposition.

chronic d. A disease having a slow onset and lasting for a long period of time.

communicable d. A disease that may be transmitted directly or indirectly from one individual to another. SEE: table; *Standard Precautions Appendix*.

hereditary d. A disease due to genetic factors transmitted from parent to offspring. Also known as an inherited disease. SEE: table.

neglected d. Any disease affecting a large number of persons (esp. in developing nations) that receives little attention from governments, medical researchers, and pharmaceutical companies. The term is used to raise social awareness of the illness among public health practitioners and citizens of Western nations. Examples of neglected diseases include Chagas' disease, leishmaniasis, malaria, malnutrition, sleeping sickness, and tuberculosis.

secondary d. A disease caused by another disease, as when obesity causes diseases of the joints and muscles of the lower limbs due to the increased trauma of transporting and supporting the added weight.

subacute d. A disease in which symptoms are less pronounced but more prolonged than in an acute disease; this type is intermediate between acute and chronic disease.

systemic d. A generalized disease rather than a localized or focal one.

disease burden The total effect of a disease on an individual or on a society.

disease of meaning Any disease or condition that potentially results from a life situation or circumstance that diminishes engagement and personal meaning and creates anomie, desperation, or the need to withdraw (e.g., into unipolar depression, substance abuse, alcoholism, self-inflicted injury).

Disease State Management Program ABBR: DSM. A program of health care specific to a designated population (e.g.,

diabetic patients), offering an organized, systematic pathway to guide clinicians and patients through predetermined steps to measurable outcomes. The program encompasses five elements: clinical guidelines, a coordinated delivery system, health care provider support, patient support and education, and outcomes management.

disengagement (dis'ēn-gāj'mēnt) [Fr.]

1. The emergence of the fetal head from within the maternal pelvis. **2.** Any withdrawal from participation in customary social activity. **3.** In psychiatry, autonomous functioning with little or no emotional attachment and a distorted sense of independence.

disentanglement (dis'ēn-tān'gl-mēnt) A

rescue technique used to free a trapped victim that involves removing the wreckage from around the patient (rather than removing the patient from the wreckage). For example, freeing a person trapped in a crushed car often requires the car to be pried apart with heavy rescue tools capable of cutting through metal.

disequilibrium (dis-ē'kwī-lib'rē-ūm) [L. *dis*, apart, + *aequus*, equal, + *libra*, balance] An unequal and unstable equilibrium.

disequilibrium syndrome Dialysis disequilibrium.

disharmony (dis'hār'mō-nē) Lack of harmony; discord.

disinfect (dis-in-fēkt') [" + *inficere*, to corrupt] To free from infection by physical or chemical means.

disinfectant A substance that prevents infection by killing bacteria. Most disinfectants are used on equipment or surfaces rather than in or on the body. Common disinfectants are halogens; salts of heavy metals; organic compounds such as formaldehyde, or alcohol 70%, iodoform, hydrogen peroxide, or ethylene oxide. The term is usually applied to a chemical or physical agent that kills vegetative forms of microorganisms.

tuberculocidal d. Any disinfectant certified by the U.S. Food and Drug Administration as having the ability to kill *Mycobacterium tuberculosis* as well as less resistant microorganisms (e.g. other bacteria, viruses, and fungi). A tuberculocidal disinfectant is not certified to kill bacterial spores.

disinfection (dis'in-fēk'shūn) The application of a disinfectant to materials and surfaces to destroy pathogenic microorganisms.

concurrent d. Prompt disinfection and suitable disposal of infected excreta during the entire course of a disease.

d. of field of operation Disinfection of the area of the body where surgery is to be performed. Universally accepted fields of preparation for most surgical procedures have been widely published.

Fungal Diseases

Disease Name	Fungus	Presentation	Susceptibility
Aspergillosis	<i>Aspergillus fumigatus</i> (and other aspergillus species)	Allergic bronchopulmonary aspergillosis (ABPA); aspergilloma; invasive or disseminated (bloodstream) infection	Persons with asthma, other allergic diseases, cystic fibrosis. Aspergilloma/invasive disease: most affected persons are immunosuppressed
Blastomycosis	<i>Blastomyces dermatitidis</i>	Pneumonia; skin infections; disseminated infections	Endemic in the Central United States. Infection most common after camping, fishing, hunting
Candidiasis	<i>Candida albicans</i> , <i>C. glabrata</i> (and other <i>Candida</i> species)	Diaper rash; oral thrush; vaginitis; esophagitis; sepsis with dissemination to multiple organs	People with burns; recent antibiotic therapy; diabetes mellitus; indwelling catheters; immunosuppressant diseases, therapies, or conditions
Coccidioidomycosis	<i>Coccidioides immitis</i>	Pneumonia; bone infection; skin abscesses; meningitis	Endemic in the Southwestern United States and parts of Central America. Infection common near construction projects; after earthquakes or other soil disturbances
Cryptococcosis	<i>Cryptococcus neoformans</i>	Meningitis; pneumonia; skin infections	Found in soil and pigeon droppings. Most affected persons are immunosuppressed
Dermatophytosis	<i>Tinea</i> species	Athlete's foot (<i>Tinea pedis</i>); beard (<i>Tinea barbae</i>); chest and back (<i>Tinea corporis</i>); groin (<i>Tinea cruris</i>); scalp (<i>Tinea capitis</i>); others	Infection often develops on warm, moist skin
Histoplasmosis	<i>Histoplasma capsulatum</i>	Pneumonia	Endemic in the Mississippi and Ohio River Valleys and parts of Central America; near caves; poultry farms

Table continued on following page

Fungal Diseases (Continued)

Disease Name	Fungus	Presentation	Susceptibility
Phaeohyphomycosis	Various dematiaceous fungi (e.g., <i>Cladophiala</i> , <i>Bipolaris</i> , <i>Exophiala</i> , <i>Wangiella</i> species)	Skin infections; brain infections	Endemic in tropical countries; local skin disease may result from cuts or scratches; disseminated disease occurs in the immunosuppressed
Pneumocystosis	<i>Pneumocystis carinii</i>	Pneumonia; disseminated infections	Most affected persons are immunosuppressed
Sporotrichosis	<i>Sporothrix schenckii</i>	Skin infections; lung, bone, joint, and disseminated infections	Outdoor skin exposures, e.g. gardening, landscaping, etc. Lung and disseminated infections most common in alcoholics, persons with COPD, diabetes mellitus, or immunosuppression
Mucormycosis; Zygomycosis	<i>Absidia</i> , <i>Mucor</i> , <i>Rhizopus</i> and other species	Skin infections; pneumonia; invasive sinus and brain infections	Persons with poorly controlled diabetes mellitus or immune suppressing diseases, therapies, or conditions

Preparation should extend well beyond the operative site. A variety of disinfection solutions are available, including povidone-iodine, benzalkonium chloride, and chlorhexidine gluconate. These agents may be used in aqueous or soap-based preparations. Mucous membranes may be cleansed by nonirritating agents or not at all.



The mucous membranes are active, absorbing surfaces, and therefore solutions of some potent antiseptics may not be used in these areas. In the past, the use of mercury-based antiseptics in the vagina, uterus, or rectum resulted in serious poisoning and in some instances death.

terminal d. Disinfection of the room and infected materials at the end of the infectious stage of a disease.

disinfection, high-level The inactivation of all bacteria, fungi, mycobacteria, and viruses on an instrument or surface used in patient care. The elimination of all spores is a separate process.

disinfestation (dis'in-fēs-tā'shūn) [L. *dis*, apart, + *infestare*, to strike at]

The process of killing infesting insects or parasites.

disinhibition (dis'in-hī-bīsh'ūn) **1.** Abolition or countering of inhibition. **2.** In psychiatry, freedom to act in accordance with one's drives with a decrease in social or cultural constraint. **3.** Loss of typical behavioral or social restraints.

disinsertion (dis'in-sēr'shūn) Retinodivysis.

disintegration [in + *integer*, entire]

1. The product of catabolism; the falling apart of the constituents of a substance. **2.** Disorganization of the psyche.

disintegrative disorder A personality disorder of children marked by regression in many areas of functioning after at least 2 yr of normal development. Individuals exhibit social, communicative, and behavioral characteristics similar to those of autistic disorder. Also called *Heller's syndrome*, *dementia infantilis*, or *disintegrative psychosis*. SYN: *childhood disintegrative disorder*.

disjoint To disarticulate or to separate bones from their natural positions in a joint.

disjunction (dis-jūnk'shūn) Separation of the homologous pairs of chromosomes

Method of Transmission of Some Common Communicable Diseases

Disease	How Agent Leaves the Body	How Organisms May Be Transmitted	Method of Entry into the Body
Acquired immunodeficiency syndrome (AIDS)	Blood, semen, or other body fluids, including breast milk	Sexual contact Contact with blood or mucous membranes or by way of contaminated syringes Placental transmission	Reproductive tract Contact with blood Placental transmission Breastfeeding
Cholera	Feces	Water or food contaminated with feces	Mouth to intestine
Diphtheria	Sputum and discharges from nose and throat Skin lesions (rare)	Droplet infection from patient coughing	Through mouth or nose to throat
Gonococcal disease	Discharges from infected mucous membranes	Sexual activity	Reproductive tract or any mucous membrane
Hepatitis A, viral	Feces	Food or water contaminated with feces	Mouth to intestine
Hepatitis B, viral and Hepatitis D	Blood and serum-derived fluids, including semen and vaginal fluids	Contact with blood and body fluids	Exposure to body fluids including during sexual activity, injection drug abuse, or surgery Contact with blood
Hepatitis C	Blood and other body fluids	Parenteral drug use Laboratory exposure to blood Health care workers exposed to blood (e.g., dentists and their assistants and clinical and laboratory staff)	Infected blood Contaminated needles Cuts; mucosal exposures
Hookworm	Feces	Cutaneous contact with soil polluted with feces Eggs in feces hatch in sandy soil	Larvae enter through skin (esp. of feet), migrate through the body, and settle in small intestine
Influenza	As in pneumonia	Respiratory droplets or objects contaminated with discharges	As in pneumonia
Leprosy	Cutaneous or mucosal lesions that contain bacilli Respiratory droplets	Cutaneous contact or nasal discharges of untreated patients	Nose or broken skin
Measles (rubeola)	Discharges from nose and throat	Respiratory droplets	Through mouth and nose
Meningitis, meningococcal	Discharges from nose and throat	Respiratory droplets	Mouth and nose

Table continued on following page

Method of Transmission of Some Common Communicable Diseases
(Continued)

Disease	How Agent Leaves the Body	How Organisms May Be Transmitted	Method of Entry into the Body
Mumps	Discharges from infected glands and mouth	Respiratory droplets and saliva	Mouth and nose
Ophthalmia neonatorum (gonococcal infection of eyes of newborn)	Vaginal secretions of infected mother	Contact with infected areas of vagina of infected mother during birth	Directly on conjunctiva
Pertussis	Discharges from respiratory tract	Respiratory droplets	Mouth and nose
Pneumonia	Sputum and discharges from nose and throat	Respiratory droplets	Through mouth and nose to lungs
Poliomyelitis	Discharges from nose and throat and via feces	Respiratory droplets; contaminated water	Through mouth and nose
Rubella	Discharges from nose and throat	Respiratory droplets	Through mouth and nose
Streptococcal pharyngitis	Discharges from nose and throat	Respiratory droplets	Through mouth and nose
Syphilis	Lesions	Sexual intercourse; contact with skin or mucous membrane lesions	Directly into blood and tissues through breaks in skin or membrane
	Blood	Contaminated needles and syringes	Contaminated needles and syringes
Transfer through placenta to fetus			
Trachoma	Discharges from infected eyes	Cutaneous contact	Directly on conjunctiva
Hands, towels, handkerchiefs			
Tuberculosis, bovine		Milk from infected cow	Mouth to intestine
Tuberculosis, human	Sputum	Droplet infection from person coughing with mouth uncovered	Through nose to lungs or intestines
Typhoid fever	Feces and urine	Food or water contaminated with feces or urine from patients	Through mouth via infected food or water and thence to intestinal tract

during anaphase of the first meiotic division.

disk [Gr. *diskos*, a disk] A flat, round, platelike structure. SYN: *disc*.

anisotropic d. SEE: *band*, *anisotropic*.

articular d. The biconcave oval disk of fibrous connective tissue that separates the two joint cavities of the temporomandibular joint on each side.

choked d. A swollen optic disk due to inflammation or edema. SYN: *papilledema*.

dental d. A thin circular paper (or other substance) used to abrade, cut, or polish teeth or dental appliances.

embryonic d. An oval disk of cells in the blastocyst of a mammal from which the embryo proper develops. Its lower layer, the endoderm, forms the roof of the yolk sac. Its upper layer, the ectoderm, forms the floor of the amniotic cavity. The primitive streak develops on the upper surface of the disk. SEE: *embryo* for illus.

Engelmann's d. [Theodor W. Engel-

Inherited Diseases and Conditions: A Brief List

Name	How is it inherited?	What is the problem?	When does it become symptomatic or apparent?	How common is it?*
Alpha ₁ -antitrypsin deficiency	Autosomal dominant	Deficiency of enzyme that protects liver and lungs from enzymatic injury. Results in early onset of chronic obstructive pulmonary disease (COPD) or liver disease. There are more than 70 genetic variants.	Childhood: Liver disease; Adulthood: Lung disease	Homozygotes: 1:3000
Autosomal dominant polycystic kidney disease	Autosomal dominant	Abnormal cell membrane protein predisposes to cyst formation in epithelial organs, esp. the kidney. Causes about 5% of all end-stage renal disease in the U.S.	Renal failure usually by ages 55 to 60	1:1000 (Europeans)
Chronic granulomatous disease	X-linked or autosomal recessive	Defect in phagocytic cells results in susceptibility to recurrent severe infections	Infancy/ Early childhood	1: 300,000
Color blindness (red-green)	X-linked recessive	Abnormalities of visual pigment expression in retinal cone cells	Childhood	1:12-20 males 1:200 females
Cystic fibrosis	Autosomal recessive	Abnormality in cellular sodium and chloride management. Infant may have meconium ileus at birth; later, azoospermia, biliary, lung, pancreatic, and sinus disease	Early childhood	Heterozygotes: 1:2000 (United Kingdom); 1:3500 (United States); 1:350,000 (Japan)
Diabetes mellitus, type 2	Polygenic	Resistance to the action of insulin in muscles and other peripheral tissues; insufficient insulin production by the pancreas. Hyperglycemia, with metabolic damage to eyes, kidneys, nerves, and blood vessels	Often at onset of inactivity; patient is overweight or obese, usually in adulthood	1-30:1000 per year; highest incidence in some ethnic groups (Africans, Hispanics, Native Americans, Polynesians)
Duchenne's muscular dystrophy	X-linked recessive	Missing protein within myocyte membranes results in weakness of proximal muscles, with difficulty walking, frequent falling, and pseudohypertrophy of muscle groups	Early childhood	1:3000-5000 (Europeans)
Familial adenomatous polyposis	Autosomal dominant	Faulty gene results in growth of hundreds of polyps within the large bowel, with the potential for malignant transformation	Adolescence/ early adulthood	1-2:1,000,000

Table continued on following page

Inherited Diseases and Conditions: A Brief List (Continued)

Name	How is it inherited?	What is the problem?	When does it become symptomatic or apparent?	How common is it?
Familial hypercholesterolemia	Autosomal dominant	Excessively high levels of LDL and total cholesterol, resulting in premature atherosclerosis	Homozygotes may have heart attacks in their 20s	Heterozygotes: 1:500 Homozygotes: 1:3,000,000
Hemophilia A	X-linked	Insufficient production of clotting factor VIII. Produces bleeding, esp. into injured joints or after surgery	Early childhood	1:5000 to 10,000 males
Hemophilia B	X-linked	Insufficient production of clotting factor IX. Produces bleeding, esp. into injured joints and after surgery	Early childhood	1:30,000 males
Hereditary hemochromatosis	Autosomal recessive	Increased iron absorption from the gastrointestinal tract. Iron deposits gradually accumulate in and damage joints, pancreas, liver, heart, testes	Middle age	Heterozygotes: 1:8 Homozygotes: 1:200
Huntington's disease	Autosomal dominant	Degeneration of the caudate nucleus of the brain, with early onset dementia, schizophreniform illnesses, and movement disorders (chorea)	Middle age	1:115,000
Long QT syndrome	Autosomal recessive; autosomal dominant	Abnormalities in management of sodium by myocytes results in prolonged action potentials and cardiac depolarization, producing life-threatening heart rhythm disturbances. Recessive form (very rare) associated with deafness	Childhood and adolescence	Not well quantified
Marfan's syndrome	Autosomal dominant	Mutations in a gene that produces extracellular matrix protein result in tall body type, with elongated fingers; flat feet; hernias; hyperextensible joints; sternal deformities; and potential for aortic dissection	Risk of aortic dissection highest after age 50	1:10,000
Neurofibromatosis I and II	Autosomal dominant	Absence of a tumor-suppressing gene results in growth of multiple skin and nerve tumors	Infancy	1:3000

Table continued on following page

Inherited Diseases and Conditions: A Brief List (Continued)

Name	How is it inherited?	What is the problem?	When does it become symptomatic or apparent?	How common is it?*
Phenylketonuria (hyperphenylalanemia)	Autosomal recessive	Inability to convert phenylalanine to tyrosine. Results in eczema and hypopigmentation, hyperactivity, mental retardation, and seizures	Infancy	1:16,000 (general American population) to 1:200,000 (lower incidence in Africans and Jews)
Porphyria, acute intermittent	Autosomal dominant	Attacks of abdominal pain, sometimes associated with autonomic dysfunction, muscle weakness, seizures	Adolescence	1:10,000 (Most common in Northern Europeans)
Rett's syndrome	X-linked dominant	After a brief period of normal development, young girls regress neurologically, developing speech disturbances, loss of normal hand movements, seizures, ataxia, and autism	Six to 18 months old	1:10-15,000
Sickle cell anemia	Autosomal recessive	Abnormal amino acid in hemoglobin molecule results in deformed red blood cells that may cause infarcts in bones and other internal organs. High risk of pneumococcal infections and painful crises	Early childhood	Heterozygotes: (African-Americans) 8-13:100 (Brazilians) 5-6:100
Tay-Sachs disease	Autosomal recessive	Deficiency of enzyme results in accumulation of sphingolipids in the brain, causing mental retardation, blindness, paralysis	Early childhood	Heterozygotes (Eastern European Jews) 1:25

*Approximate number of affected persons per number of births; ethnic predominance in parentheses where known.

mann, Ger. physiologist, 1843–1909] H band.

epiphyseal d. A disk of cartilage at the junction of the diaphysis and epiphyses of growing long bones. Cartilage synthesis provides for growth in length; eventually the cartilage is replaced by bone.

Hensen's d. SEE: *Hensen's disk*.

herniated intervertebral d. Rupture of the soft tissue that separates two vertebral bones into the spinal canal or adjacent spinal nerve roots. Herniation of intervertebral disks can cause back pain and, occasionally, loss of neurologic function in the distribution of affected

nerves. SYN: *slipped disk*. SEE: *herniation of nucleus pulposus* for illus.

intercalated d. A modification of the cell membrane of adjacent cardiac muscle cells; it contains intercellular junctions for electrical and mechanical linkage of contiguous cells.

intervertebral d. The fibrocartilaginous tissue between the vertebral bodies. The outer portion is the anulus fibrosus; the inner portion is the nucleus pulposus. The disk is a shock absorber, or cushion, and permits movement.

M d. M line.

optic d. The area of the retina where the optic nerve enters. SYN: *blind spot* (1).

Placido's d. SEE: *Placido's disk*.

slipped d. Lay term for *herniated intervertebral disk*.

disk diffusion induction test A method of assessing erythromycin-resistant strains of *Staphylococcus aureus* for their susceptibility to the antibiotic clindamycin. Erythromycin-impregnated disks are placed near clindamycin, or lincomycin-impregnated disks on a growth medium, and the effect of inducible erythromycin resistance on the inhibition of bacterial growth around the clindamycin disk is assessed. A flattening of the zone of inhibition around the clindamycin disk is indicative of clindamycin drug resistance. SYN: *D-test*.

discectomy, discectomy (dīs-kēk'tō-mē) Surgical removal of a herniated intervertebral disk.

diskitis, discitis (dīs-kī'tīs) [Gr. *diskos*, disk, + *itis*, inflammation] Inflammation of a disk, esp. an interarticular cartilage. SYN: *meniscitis*.

dislocation (dīs-lō-kā'shūn) [L. *dis*, apart, + *locare*, to place] The displacement of any part, esp. the temporary displacement of a bone from its normal position in a joint.

 **ankle d.** Traumatic displacement of the talocrural joint with or without concurrent fracture of the tibial or fibular malleoli, or both.

closed d. A dislocation in which the joint is not penetrated by a wound. SYN: *simple dislocation*.

complete d. A dislocation that separates the surfaces of a joint completely.

complicated d. A dislocation associated with other major injuries.

compound d. A dislocation in which the joint communicates with the external air. SYN: *open dislocation*.

condylar d. In the jaw, a displacement of the mandibular condyle in front of the condylar eminence. It is often caused by keeping the mouth wide open for an extended time, as in dental treatment that involves a rubber dam. SEE: *subluxation*.

congenital d. A dislocation existing from or before birth.

consecutive d. A dislocation in which the luxated bone has changed position since its first displacement.

divergent d. A dislocation in which the ulna and radius are displaced separately. It also may involve the tibia and fibula.

habitual d. Recurrent joint dislocation resulting during normal motion. The patella and the hip are the most commonly affected joints.

incomplete d. A slight displacement of opposing articular surfaces. SYN: *Partial dislocation*. SEE: *subluxation (1)*.

Lisfranc's d. SEE: *Lisfranc's dislocation*.

mandibular d. SEE: *subluxation*.

metacarpophalangeal joint d. The dislocation of the joint between the carpal and the phalanges, usually involving the index finger or small finger of the hand. The dislocation may be simple and respond to closed manipulation or be complex and require surgery.

Monteggia's d. SEE: *Monteggia's dislocation*.

old d. A dislocation in which no reduction has been accomplished even after many days, weeks, or months.

open d. Compound d.

partial d. Incomplete d.

pathological d. A dislocation resulting from paralysis or disease of the joint or supporting tissues.

primitive d. A dislocation in which the bones remain as originally displaced.

recent d. A dislocation seen shortly after it occurred.

simple d. Closed d.

slipped d. SEE: *herniated intervertebral disk*.

subastragalar d. Separation of the calcaneum and the scaphoid from the talus.

subspinous d. A dislocation with the head of the humerus resting below the spine of the scapula and medial to the acromion process.

traumatic d. Dislocation due to injury or violence.

dislodgement (dīs-lōj'měnt) [M.Fr. *desloger*, to dislodge] The removal or displacement of a foreign object from a body part, e.g., an endotracheal tube from a patient's airway. **dislodge, v.**

dismember (dīs-mēm'bēr) To remove an extremity or a portion of it.

dismutase (dīs-mū'tās) An enzyme that acts on two molecules of the same substance. One of these is oxidized and the other reduced; two new compounds are thus produced.

disocclusion (dīs'ō-kloo'zhūn) Loss of contact between opposing teeth.

disorder A pathological condition of the mind or body. Particular disorders are listed under the first word. SEE: e.g., *acute stress disorder; bipolar disorder; learning disorder*. SEE: *disease*.

disorder of written expression An inability to draft grammatically correct phrases, sentences, or paragraphs, a disability that may impair advancement in school or work. This communication disorder is said to be present only when

1. it cannot be attributed to sensory, medical, or neurological deficits (e.g., hearing impairment); and

2. it is an isolated deficit, out of proportion to one's age and measured intelligence.

disorganization [L. *dis*, apart, + Gr. *organon*, a unified organ] **1.** Alteration in an organic part, causing it to lose most or all of its distinctive characteristics.

2. In psychology and psychiatry, affective and/or cognitive chaos.

disorientation (dīs'ō-rē-ēn-tā'shūn) [" + *oriens*, arising] Inability to estimate direction or location or to be cognizant of time or of persons.

spatial d. In aerospace medicine, a term used to describe a variety of incidents occurring in flight, when the pilot fails to sense correctly the position, motion, or attitude of the aircraft or himself or herself within the coordinate system provided by the surface of the earth and gravitation.

disparate (dīs'pā-rāt) [L. *disparitas*, unequal] Dissimilar, not equally paired.

dispensary (dīs-pēn'sā-rē) [L. *dispensare*, to give out] 1. A clinic or similar place for obtaining medical care. 2. An outpatient pharmacy.

dispensatory (dīs-pēn'sā-tō-rē) [L. *dispensatorium*] A publication, in book form, of the description and composition of medicines.

dispense (dīs-pēns') To prepare or deliver medicines.

disperse (dīs'pūr-sāt) A suspension of finely divided particles in a liquid.

disperse (dīs-pērs') [L. *dis*, apart, + *spargere*, to scatter] 1. To scatter, esp. applied to light rays. 2. To dissipate or cause to disappear, as a tumor or the particles of a colloidal system.

disperse dye A textile pigment used to color polyester fabrics. It is a cause of allergic contact dermatitis, esp. seen in skin folds, where clothes may chafe against the skin. Allergies to disperse dyes can be avoided by wearing natural-fiber clothing.

dispersion (dīs-pēr'zhūn) 1. The act of dispersing. 2. That which is dispersed.

coarse d. Suspension (3).

colloidal d. A mixture containing colloidal particles that fail to settle out and are held in suspension. They are common in animal and plant tissues; the protoplasm of cells is an example. Particles of colloidal dispersions are too large to pass through cell membranes. Such dispersions usually appear cloudy.

molecular d. A true solution.

QTc d. In electrocardiography, variation in the corrected QT interval in different leads. This has been correlated with an increased incidence of ventricular arrhythmias and sudden death.

dispersoid (dīs-pēr'soyd) A colloid with very finely divided particles.

dispersonalization (dīs-pēr'sōn-āl-ī-zā'shūn) A mental state in which the individual denies the existence of his or her personality or parts of the body.

displacement (dīs'plās'mēnt) [Fr. *deplacer*, to lay aside] 1. Removal from the normal or usual position or place. 2. Addition to a fluid of another more dense, causing the first fluid to be dispersed. 3. Transference of emotion from

the original idea with which it was associated to a different idea, thus allowing the patient to avoid acknowledging the original source.

disposition [L. *disponere*, to arrange]

1. A natural tendency or aptitude exhibited by an individual or group. It may be manifested by acquiring a certain disease, presumably due to hereditary factors. 2. The sum of a person's behavior as determined by his or her mood. SEE: *diathesis*.

disproportion (dīs'prō-por'shūn) A size different from that considered to be normal.

cephalopelvic d. ABBR: CPD. Disparity between the dimensions of the fetal head and those of the maternal pelvis. When the fetal head is larger than the pelvic diameters through which it must pass, or when the head is extended as in a face or brow presentation and cannot rotate to accommodate to the size and shape of the birth canal, fetal descent and delivery are not possible.

disruptive [" + *ruptura*, breaking] Socially or professionally unacceptable. Said of behaviors that adversely impact others, e.g., angry or intimidating outbursts, demeaning comments, or unwarranted criticisms.

disruptive behavior disorder Attention-deficit hyperactivity disorder.

dissect (dī-sēkt', dī-sēkt') [L. *dissecare*, to cut up] To separate tissues and parts of a cadaver for anatomical study.

dissecting cellulitis of the scalp An inflammatory (pustular) disease of the scalp, similar to acne conglobata or hidradenitis suppurativa. It can be treated surgically, with isotretinoin, or with laser therapy. It is also known as perifolliculitis capitis abscedens et suppurativa.

dissection (dī-, dī-sēk'shūn) In surgical procedures, the separation and delineation of tissues for study.

aortic dissection SEE: *aortic dissection*.

blunt d. In surgical procedures, separation of tissues by use of a blunt instrument. This provides minimal damage to the part being dissected if anatomical planes are observed. In various pathological states, sharp dissection may be less traumatic.

carotid artery d. Longitudinal tearing of the carotid artery, a rare cause of stroke, occurring esp. in patients who have suffered trauma or twisting of the head and neck.

SYMPTOMS: Patients may report the sudden onset of unilateral neck pain that radiates toward the head, along with new neurological deficits.

radical neck d. The removal of the sternocleidomastoid muscle, internal jugular vein, spinal accessory nerve, and lymph nodes of the neck. The sur-

gery is used primarily for the treatment of head and neck cancers.

selective neck d. One of several operations used for staging and treatment of neck cancers. In the most commonly used approach, the tissues above the omohyoid, including the submandibular gland and lymphatics, are removed.

sharp d. In surgical procedures, gaining access to tissues by incising them with some sort of sharp instrument, such as a scalpel.

dissection electrode An electrosurgical scalpel.

dissemble (dĭ-sĕm'bl) To mislead, to give a false impression, or to conceal the truth.

disseminated [L. *dis*, apart, + *seminare*, to sow] Scattered or distributed over a considerable area, esp. applied to disease organisms; scattered throughout an organ or the body.

disseminated intravascular coagulation
ABBR: DIC. A life-threatening disease occurring as a complication of other conditions in which the coagulation pathways are hyperstimulated, resulting in diffuse rather than localized activation of coagulation factors. The accelerated clotting occludes small blood vessels (usually in the kidneys and extremities, but sometimes in the brain, lungs, pituitary and adrenal glands, and GI mucosa), resulting in organ necrosis. Clotting factors are consumed to such an extent that generalized bleeding may occur. SEE: *acute respiratory distress syndrome; hypofibrinogenemia; sepsis; serine protease inhibitor; systemic inflammatory response syndrome; Nursing Diagnoses Appendix.*

ETIOLOGY: Disseminated intravascular coagulation usually occurs acutely but may be a chronic condition in cancer patients. Various conditions have been associated with DIC, including sepsis; extensive burns or other trauma; pancreatitis; acute intravascular hemolysis; gram-negative or gram-positive septicemia; acute viral, rickettsial, or protozoal infection; abruptio placentae, septic abortion, and other obstetric complications; surgical procedures; heat-stroke; certain poisonous snake bites; severe head injury; malignancy; retained dead fetus; liver disease; incompatible blood transfusion; and systemic lupus erythematosus.

SYMPTOMS: Symptoms of DIC include bleeding from surgical or invasive procedure sites and from the GI tract, oral cavity, nose, or urinary tract. The patient may also experience nausea and vomiting; dyspnea; severe muscle, back, and abdominal pain; chest pain; hemoptysis; epistaxis; seizures; and oliguria. Peripheral pulses and blood pressure may be decreased, and the patient may

demonstrate confusion or other changes in mental status. SEE: *illus.*



DISSEMINATED INTRAVASCULAR COAGULATION

Bleeding into the skin

TREATMENT: The underlying illness must be recognized and treated promptly. In some cases, depending on the cause, heparins or antithrombin III may be administered; patients may receive transfusional support (blood, cryoprecipitate, fresh frozen plasma, packed RBCs, or platelets).

PATIENT CARE: In acute DIC, intake and output are monitored hourly, esp. when blood products are given, and the patient is observed for transfusion reactions and fluid overload. The blood pressure cuff is used infrequently to avoid triggering subcutaneous bleeding. Any emesis, drainage, urine, or stool should undergo a test for occult blood, and dressings and linens should be weighed to measure the amount of blood lost. Daily weights are obtained, particularly in cases of renal involvement. The patient is observed closely for signs of shock, and the abdominal girth measured every 2 to 4 hr if intra-abdominal bleeding is suspected.

The results of serial blood studies (e.g., hemoglobin, hematocrit, and coagulation studies) are monitored. All venipuncture sites are checked frequently for bleeding. Analgesics are given as prescribed, as well as heparin therapy, if prescribed (the latter is controversial). The patient is repositioned every 2 hr, and meticulous skin care is provided. Prescribed oxygen therapy is administered. Areas at risk can be washed gently with hydrogen peroxide and water to remove crusted blood. Pressure, cold compresses, and topical hemostatic agents are applied to control bleeding. Parenteral injections are avoided and venipunctures limited whenever possible; pressure should be applied to an injection site for at least 20 min after removal of a needle or intravenous catheter. The patient is protected from injury by enforcement of complete bedrest during bleeding episodes and by padding the bed rails if the patient is at risk

for agitation. Frequent rest periods are provided.

The disorder, the patient's progress, and treatment options and posttreatment appearance are explained, and the patient and family are encouraged to express their feelings and concerns and are referred for further counseling or support as needed.

dissipation (dis-ĭ-pā'shūn) [L. *dissipare*, to scatter] **1.** Dispersion of matter. **2.** The act of living a wasteful and dissolute life, esp. drinking alcoholic beverages to excess.

dissociation (dis-sō'sē-ā'shūn) [L. *dis*, apart, + *sociatio*, union] **1.** Separation, as the separation by heat of a complex compound into simpler molecules, or the separation of ions when a salt is dissolved. **2.** The ability to move one body segment independently of another. **3.** In psychiatry, the separation of identity, memory, and cognition from affect; the splitting of ideas and memory about oneself from their emotional and historical underpinnings. SYN: *dissociative reaction*.

atrioventricular d. Dissociation that occurs when the independent pacemakers of the atria and ventricles of the heart are not synchronized. This is a hallmark of third-degree heart block.

microbic d. A change in the morphology of a cultured microbial colony due to mutation or selection.

d. of personality A split in consciousness resulting in two different phases of personality, neither being aware of the words, acts, and feelings of the other. SEE: *dissociative identity disorder*; *multiple personality*; *vigilambulism*; *Nursing Diagnoses Appendix*.

psychological d. A disunion of mind of which the person is not aware (e.g., dual personality, fugue, somnambulism, selective amnesia).

dissociative identity disorder A rare but increasingly reported psychiatric illness in which a person has two (or more) distinct personalities. It was formerly known as "multiple personality disorder." The patient's personalities may vary broadly with respect to interests, communication styles, aggression, and gender. Amnesia for differing personalities is characteristic.

ETIOLOGY: Patients often report a history of abuse in childhood, but whether this causes the syndrome is unknown. SYN: *alternating personality*; *double personality*; *multiple personality*.

dissociative reaction Dissociation (3).

dissolution (dis'sō-lū'shūn) [L. *dissolvere*, to dissolve] **1.** Death. **2.** A pathological resolution or breaking up of the integrity of an anatomical entity.

dissolve (dī-zōlv') [L. *dissolvere*, to dissolve] To cause absorption of a solid in and by a liquid.

dissonance (dis'ō-nāns) **1.** Discord or disagreement. **2.** Unpleasant sounds, particularly musical ones.

cognitive d. Incongruity of thought, philosophy, or action.

distad (dis'tād) [L. *distare*, to be distant] Away from the center.

distal (dis'tāl) [L. *distare*, to be distant] **1.** Farthest from the center, from a medial line, or from the trunk; opposed to proximal. **2.** In dentistry, the tooth surface farthest from the midline of the arch.

distal intestinal obstruction syndrome ABBR: DIOS. A form of intestinal obstruction uniquely found in children with cystic fibrosis, formerly known as meconium ileus equivalent.

distal muscular dystrophy ABBR: DD. One of several rare forms of muscular dystrophy in which the forearm, hand, calf, and foot muscles are primarily affected as opposed to the muscles of the shoulders or pelvic girdle. Its onset usually occurs between the ages of 40 and 60. DD is also known as *distal myopathy*.

distance The space between two objects.

focal d. The distance from the optical center of a lens to the focal point.

focus-film d. ABBR: FFD. An obsolete term for source-to-image receptor distance.

interocclusal d. The distance between the occlusal surfaces of opposed teeth when the mandible is at rest.

interocular d. The distance between the eyes. SEE: *hypertelorism*.

interpupillary d. The distance between the centers of the pupils of the eyes.

object-film d. ABBR: OFD. An obsolete term for object-image receptor distance.

object-image receptor distance ABBR: OID. In radiography, the distance between the anatomical structure to be imaged and the radiographic image receptor.

source-skin d. In radiologic sciences, the distance from a radiation source to a patient's skin.

source-object distance ABBR: SOD. The distance between a source of radiation and the object that it images or radiates.

source-to-image receptor d. ABBR: SID. In radiography, the distance from the x-ray tube to the radiographical film or the image digitizer.

target-skin d. ABBR: TSD. The distance at which it is safe to deliver an appropriately timed exposure of ionizing radiation for treatment or diagnosis.

distance vision test Snellen's chart.

distemper (dis-tēm'pēr) In veterinary medicine, one of several viral infections of animals that cause fever, anorexia, and nerve disease.

distend (dī-stēnd') [L. *distendere*, to stretch out] **1.** To stretch out. **2.** To become inflated.

distensibility (dīs-tēn'sī-bīl'ī-tē) The ability to become distended.

distention (dī-stēn'shūn) The state of being distended.

distichiasis (dīs'tī-kī'ā-sīs) [Gr. *distichia*, a double row] A condition in which there are two rows of eyelashes, one or both being directed inward toward the eye.

distill (dīs-tīl') [L. *destillare*, to drop from] To vaporize by heat and condense and collect the volatilized products.

distillate (dīs'tīl-āt, dīs-tīl'āt) That which has been derived from the distillation process.

distillation (dīs-tī-lā'shūn) Condensation of a vapor that has been obtained from a liquid heated to the volatilization point, as the condensation of steam from boiling water. Distillation is used to purify water and for other purposes. Distilled water should be stored in covered containers because it readily takes up impurities from the atmosphere.

destructive d. The process of decomposing complex organic compounds by heat in the absence of air and condensing the vapor of the liquid products.

dry d. Distillation of solids without added liquids.

fractional d. Separation of liquids based on the difference in their boiling points.

distinct part Any section of a nursing home specifically designated for the care of Medicare or Medicaid patients. The admissions, discharges, census, expenses, provisioning, and staffing of the distinct part are accounted for separately from the rest of the institution.

distobuccal (dīs'tō-būk'āl) [L. *distare*, to be distant, + *bucca*, cheek] Pert. to the distal and buccal walls of bicuspid and molar teeth; also pert. to the distal or buccal walls of a cavity preparation.

distocclusion (dīs'tō-kloo'zhūn) A condition in which the lower teeth meet the upper teeth behind the normal position.

distogingival (dīs'tō-jīn'jī-vāl) [l' + *gingiva*, gum] Pert. to the distal and gingival walls of a cavity being prepared for restoration.

distolabial (dīs'tō-lā'bē-āl) [l' + *labialis*, lips] Pert. to the distal and labial surfaces of a tooth.

distolingual (dīs'tō-līng'gwāl) [l' + *lingua*, tongue] Pert. to the distal and lingual surfaces of a tooth.

distome (dīs-tōm') A fluke with two suckers, an oral and a ventral sucker, or acetabulum.

disto-occlusal (dīs'tō-ō-kloo'zāl) Concerning the distal and occlusal surfaces of a tooth or the distal and occlusal walls of a cavity preparation.

distortion (dīs-tōr'shūn) [L. *distortio*,

twist, writhe] **1.** A twisting or bending out of regular shape. **2.** A writhing or twisting movement as of the muscles of the face. **3.** A deformity in which the part or structure is altered in shape. **4.** In ophthalmology, visual perception of an image that does not provide a true picture, due to astigmatism or to retinal abnormalities. **5.** In psychiatry, the process of modifying unconscious mental elements so that they can enter consciousness without being censored. **6.** In radiology, the difference in size and shape of a radiographic image as compared with the actual part examined. **7.** Variation in the amplitude or frequency of a signal that may be caused by overdriving the amplifier in the circuit.

distractibility (dīs-trāk'tī-bīl'ī-tē) Inability to focus one's attention; loss of the ability to concentrate.

distraction (dīs-trāk'shūn) [L. *dis*, apart, + *tractio*, a drawing] **1.** A state of mental confusion or derangement. **2.** Separation of joint surfaces by extension without injury or dislocation of the parts. **3.** A joint mobilization technique causing separation of opposing joint surfaces. It is used to inhibit pain, move synovial fluid, or stretch a tight joint capsule.

distraction therapy The use of pleasing sensory stimuli (such as aromas, images of nature, massage, or music) to divert the attention of a patient from an unpleasant clinical experience. Distraction therapy can reduce the pain experienced by patients during, e.g., reduction of fractures, placement of catheters, or wound debridement.

distraught (dīs-traw't') [L. *distrahere*, to perplex] In doubt, deeply troubled, and having conflicting thoughts.

distress (dīs-trēs') [L. *distringere*, to draw apart] Physical or mental pain or suffering.

fetal d. A nonspecific clinical diagnosis indicating pathology in the fetus. The distress, which may be due to lack of oxygen, is judged by fetal heart rate or biochemical changes in the amniotic fluid or fetal blood.

distress, moral Response to the inability to carry out one's chosen ethical/moral decision/action. SEE: *Nursing Diagnoses Appendix*.

distribution [L. *dis*, apart, + *tribuere*, to allot] **1.** In anatomy, the dividing and spreading of anything (esp. blood vessels and nerves) among tissues. **2.** The presence of entities (e.g., hair, fat, or nutrients) at various sites or in particular patterns throughout the body. **3.** In demography or statistics, the pattern of events or locations.

frequency d. In statistics, the assignment of continuous data points into arbitrarily chosen, mathematically useful

clusters; a list of the number of times different ranges of values appear in a given data set. When a frequency distribution is graphed, it forms a histogram.

Gaussian d. Normal d.

normal d. In statistics, the theoretical, smooth, continuous, symmetrical bell-shaped curve made by tallying the frequency distribution of random data points. The mean, median, and mode of the data coincide. SYN: *bell curve*; *Gaussian curve*; *Gaussian distribution*; *normal curve*.

districhiasis (dīs-trīk-ī'ā-sīs) [Gr. *dis*, double, + *thrix*, hair] A condition in which two hairs grow from the same hair follicle.

disturbance 1. Interruption of the normal sequence of continuity. 2. A departure from the considered norm.

emotional d. Mental disorder.

disulfate (dī-sūl'fat) A compound containing two sulfate radicals. SEE: *bisulfate*.

disulfiram (dī-sūl'fī-rām) Antabuse.

disulfiram poisoning SEE: *Antabuse in Poisons and Poisoning Appendix*.

disuse syndrome, risk for A state in which an individual is at risk for deterioration of body systems as the result of prescribed or unavoidable musculoskeletal inactivity. SEE: *Nursing Diagnoses Appendix*.

diuresis (dī'ū-rēs') To cause diuresis.

diuresis (dī'ū-rēs'sīs) [Gr. *diourein*, to urinate] The secretion and passage of large amounts of urine. Diuresis occurs as a complication of metabolic disorders such as diabetes mellitus, diabetes insipidus, and hypercalcemia, among others. It also occurs when obstruction to urinary flow is suddenly relieved ("post-obstructive diuresis"), after childbirth, and after supraventricular tachycardias.

Diuretic drugs are used to manage conditions marked by fluid overload, such as congestive heart failure, cirrhosis, and nephrotic syndrome. They are also used to manage cerebral edema, hyperkalemia, and some intoxications. SEE: *diuretic*.

postpartum d. Excessive fluid excretion after childbirth, typically more than 3 L/day.

PATIENT CARE: The nurse should be particularly alert to the potential for rapid bladder distention during the final stage of labor and immediately postpartum. A distended bladder is the most common cause of fundal displacement, loss of uterine tone, a boggy uterus, and excessive bleeding. Despite the marked increase in urine formation related to the rapid postbirth fluid shift, the woman may be unaware of a need to void because of urethral edema, trauma, or the continuing effects of regional an-

esthesia or analgesia. Ultrasound scanning can be used to create an image of the patient's bladder, calculate and display the urine volume if bladder distention is suspected, and determine the extent of emptying after voiding. Spontaneous bladder emptying is encouraged by early ambulation, running water, and warm perineal cascades; catheterization may be necessary if nursing measures are unsuccessful and distention increases.

diuretic (dī'ū-rēt'ik) 1. Increasing urine secretion. SEE: *diuresis*. 2. An agent that increases urine output. Diuretics are used to treat hypertension, congestive heart failure, and edema. Common side effects of these agents are potassium depletion, low blood pressure, dehydration, and hyponatremia.

potassium-sparing d. An agent that stimulates the kidneys to excrete water and sodium while retaining potassium. Drugs from this therapeutic class are used to treat hypertension, fluid retention in cirrhosis, and congestive heart failure.

diurnal (dī-ūr'n'āl) [L. *dies*, day]

1. Daily. 2. Happening in the daytime or pert. to it. SEE: *circadian*; *clock, biological*; *desynchronosis*; *nocturnal*.

divagation (dī-vā-gā'shūn) [L. *divagatus*, to wander off] 1. Wandering astray. 2. Rambling or incoherent speech.

divalent (dī-vā'lēnt) In a molecule, having an electric charge of two.

divergence (dī-vēr'jēns) [L. *divergere*, to turn aside] Separation from a common center, especially that of the eyes.

divergent (dī-vēr'jēnt) Radiating in different directions.

diversion (dī-vēr'zhūn) 1. In hospital management, the routing of patients away from one facility to others, usually because the first institution is inaccessible, overcrowded, or understaffed.

2. In surgery, the redirection of the normal flow of body contents from one organ to another. 3. The illicit use of a controlled substance for a purpose other than that which was intended by its prescriber.

diversional activity, deficient The state in which an individual experiences a decreased stimulation from or interest or engagement in recreational or leisure activities (because of internal/external factors that may or may not be beyond the individual's control). SEE: *Nursing Diagnoses Appendix*.

diverticulectomy (dī'vēr-tīk'ū-lēk'tō-mē) [" + Gr. *ektome*, excision] Surgical removal of a diverticulum.

diverticulitis (dī'vēr-tīk'ū-lī'tīs) [" + Gr. *itis*, inflammation] Inflammation of a diverticulum or diverticula in the intestinal tract, esp. in the colon, causing pain, anorexia, fevers, and rarely intes-

tinal perforation, hemorrhage, abscess formation, peritonitis, fistula formation, or death. SEE: *Nursing Diagnoses Appendix*.

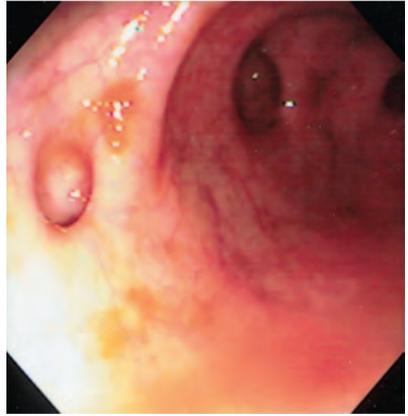
PATIENT CARE: During an acute episode, prescribed treatment with fluid and electrolyte replacement; antibiotic, antispasmodic, analgesic, and stool softener therapy; and nasogastric suction, if required, is initiated. The patient is observed for increasing or decreasing distress and for any adverse reactions to the therapy. Stools are inspected for mucus, blood, and consistency, and the frequency of bowel movements is noted. The patient is assessed for fever, increasing abdominal pain, blood in the stools, and leukocytosis, and for indications of perforation, such as rebound tenderness. Rest is prescribed, and the patient is instructed not to lift, strain, bend, cough, or perform other actions that increase intra-abdominal pressure. When the patient resumes a normal diet, stool softeners may be employed.

Patients need to be educated about the disease and its symptoms. A well-balanced diet that provides dietary roughage in the form of fruit, vegetable, and cereal fiber, but that is nonirritating to the bowel, is recommended, and fluid intake should be increased to 2 to 3 L daily (unless otherwise restricted). Constipation and straining at stool should be avoided, and the patient is advised to relieve constipation with stool softeners and bulk cathartics, taken with plenty of water. The importance of regular medical evaluation is emphasized. If medical treatment is not effective, a colon resection may be necessary to remove the affected area. Perforation, peritonitis, obstruction, or fistula formation may necessitate a temporary colostomy (so that abscesses may drain and the colon can rest), followed in 6 weeks to 3 months by reanastomosis.

acute d. Diverticulitis in which the symptoms are similar to those of appendicitis but usually located in the left rather than the right lower quadrant of the abdomen: inflammation of the peritoneum, formation of an abscess, and in untreated patients, intestinal gangrene accompanied by perforation.

chronic d. Diverticulitis marked by worsening constipation, mucus in the stools, and intermittent left lower quadrant abdominal pains. The walls of the bowels may thicken, which may produce stricture formation and chronic intestinal obstruction.

diverticulosis (dī'vēr-tīk'ū-lō'sīs) [*Gr. osis, condition*] Diverticula in the colon without inflammation or symptoms. Only a small percentage of persons with diverticulosis develop diverticulitis. SEE: *illus.*



DIVERTICULOSIS, SEEN ENDOSCOPICALLY

diverticulum (dī'vēr-tīk'ū-lūm) *pl. diverticula* [*L. devertere, to turn aside*] An outpouching of the walls of a canal or organ. SEE: *illus.*

d. of the colon An outpocketing of the colon. These may be asymptomatic until they become inflamed.

d. of the duodenum A diverticulum commonly located near the entrance of the common bile or pancreatic duct.

false d. A diverticulum without a muscular coat in the wall or pouch. This type of diverticulum is acquired.

gastric d. A pulsion-type diverticulum usually on the lesser curvature of the esophagogastric junction.

d. of the jejunum A diverticulum usually marked by severe pain in the upper abdomen, followed occasionally by a massive hemorrhage from the intestine.

Meckel's d. SEE: *Meckel's diverticulum.*

d. of the stomach A diverticulum of the stomach wall.

true d. A diverticulum involving all the coats of muscle in the pouch wall. It is usually congenital.

Zenker's d. SEE: *Zenker's diverticulum.*

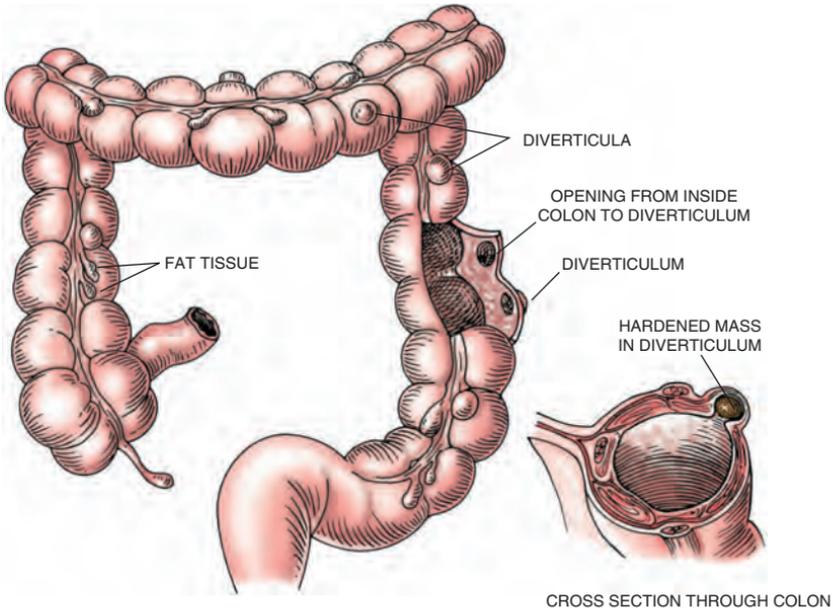
divulsion (dī-vūl'shūn) [*L. dis, apart, + vellere, to pluck*] A forcible pulling apart.

divulsor (dī-vūl'sor) [*L. dis, apart, + vellere, to pluck*] A device for dilatation of a part, esp. the urethra.

pterygium d. An instrument for separating the corneal portion of the pterygium.

tendon d. A device for separating a tendon from the surrounding tissue.

Dix, Dorothea Lynde (dīks) A Massachusetts schoolteacher (1802–1887) who crusaded for prison reform and for care of the mentally ill. She was responsible for founding many hospitals in the U.S., Canada, and several other countries.



MULTIPLE DIVERTICULA OF THE COLON

During the Civil War, she organized the nursing service of the Union armies.

dizziness [AS. *dysig*, foolish] **1.** Light-headedness, unsteadiness, loss of spatial orientation, or loss of balance. **2.** Generalized weakness, faintness, or presyncope. **3.** Mental uncertainty; difficulty concentrating; feeling disconnected from one's normal sense of clarity or focus. SYN: *giddiness*. SEE: *vertigo*.

DJD *degenerative joint disease*.

DKA *diabetic ketoacidosis*.

dl *deciliter*.

DM *diabetes mellitus*.

DMARD *disease-modifying antirheumatic drug*.

DMAT *disaster medical assistance team*.

DMSO *dimethyl sulfoxide*.

DMT *dimethyltryptamine*.

DN An abbreviation for *Doctor of Nursing*. Because this abbreviation is also used in naturopathy and naprapathy (*Doctor of Naturopathy* and *Doctor of Naprapathy*) the American Association of Colleges of Nursing has recommended that the DN degree be phased out in favor of DNP, *Doctor of Nursing Practice*.

DNA *deoxyribonucleic acid*.

complementary D. A double-stranded copy of a single-stranded RNA molecule, made by reverse transcriptase, an enzyme used by retroviruses such as HIV-1.

mitochondrial D. ABBR: mtDNA. Deoxyribonucleic acid (DNA) in the in-

tracellular bodies known as mitochondria. It differs from nuclear DNA in its nucleotide sequences, its size (about 16.5 kb), and its source (it is derived solely from the egg, not the sperm). Variations in mtDNA point to the ways in which members of a related population differ from each other genetically.

naked D. DNA that has been modified to remove the proteins that normally surround it; used for genetic transfers and vaccine manufacture, among other purposes.

DNA fingerprint A distinctive pattern of bands formed by repeating sequences of base pairs of satellite DNA. The identification of the pattern can help establish the origin of tissues and body fluids, and identify bacterial strains in infectious outbreaks.

DNA ladder A solution of double-stranded DNA fragments whose molecule weights (and number of base pairs) are known and standardized. The ladder is used to calibrate electrophoresis gels so that samples of unknown DNA that have been introduced into the gel can be measured.

DNA laddering The fragmentation of DNA that occurs during apoptosis.

DNA melting temperature The temperature at which the DNA helix loosens into a coil.

DNA probe A single-strand DNA fragment used to detect the complementary fragment. DNA probes are used widely in bacteriology. Recombinant DNA tech-

niques are used to isolate, reproduce, and label a portion of the genetic material, DNA, from the nucleus of a microorganism that is specific for it. This fragment can be added to a specimen containing the organisms. The specimen and known DNA are treated so that the DNA strands from the organisms in the specimen are separated into single strands. The DNA from the specimen rejoins (is annealed to) the known labeled DNA and is thereby labeled. This permits the identification of a single pathogenic organism in a specimen that contains many different microorganisms.

DNAR *do not attempt resuscitation.*

DNAzyme (dē-ĕn-ā'zīm") [n + (en)zyme] A string of linked nucleotides capable of catalyzing a biochemical reaction.

DNP *Doctor of Nursing Practice.*

DNR *do not resuscitate.*

DNsc, DNS *Doctor of Nursing Science.*

DO *Doctor of Osteopathy.*

DOA *dead on arrival (at a hospital).*

dobutamine hydrochloride (dō-būt'ā-mēn) A synthetic beta-agonist whose primary effect is to increase cardiac contractility, with little effect on systemic vascular resistance. It produces less tachycardia than dopamine and has no effect on renal blood flow. It is of use in congestive heart failure and cardiogenic shock.

docohexanoic acid ABBR: DHA. Omega-3 fatty acids.

doctor [L. *docere*, to teach] **1.** The recipient of an advanced degree, such as doctor of medicine (MD), doctor of osteopathy (or DO), doctor of philosophy (Ph.D.), doctor of science (D.Sc.), doctor of nursing science (DNS), doctor of dental medicine (D.M.D.), doctor of education (Ed.D.), or doctor of divinity (DD). **2.** One who, after graduating from a medical, veterinary, or dental school, successfully passes an examination and is licensed by a state government to practice medicine, veterinary medicine, or dentistry. SEE: *optometry; osteopathy*. Because of the great variety of doctoral degrees, the use of the word *doctor* is sometimes confusing. This may be remedied by using the word *physician* when writing or speaking of those who possess an MD or DO (doctor of osteopathy) degree.

barefoot d. A practitioner of traditional or native medicine in the People's Republic of China. Although barefoot doctors have not attended medical school, they are trained in the use of traditional Chinese therapies (e.g., the use of acupuncture and herbs), and in some Western therapies, such as first aid.

doctorally prepared Pertaining to a person who possesses the highest academic degree, e.g., Ph.D., Ed.D., recognized by

an institution of higher education as having a prerequisite for promotion and tenure.

doctor-patient relationship All the interactions between a patient and a health care professional. These interactions establish the basis for interpersonal communication, trust, compliance, and satisfaction.

doctrine (dōk'trīn) A system of principles taught or advocated.

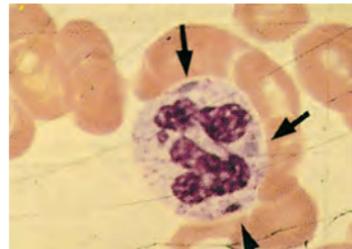
borrowed servent d. The legal theory that a patient care supervisor (e.g., an attending physician who oversees the work of a resident physician) may be held responsible for the negligent acts of a subordinate. This doctrine is a form of vicarious liability. SEE: *Captain of the Ship doctrine; vicarious liability.*

documentation (dōk'ū-mēn-tā'shūn)

1. Manuals, instruction books, and programs or help menus that provide guidance to a user. **2.** Recording pertinent medical information in a patient's medical record. The information may be handwritten on the patient's chart or keyboarded into an electronic medical record. SEE: *charting.*

dogmatic (dog-mā'tik) **1.** Pert. to dogma or doctrine, e.g., of a religion. **2.** Pert. to the expression of opinions in an uncompromising, arrogant manner.

Döhle bodies (dē'lē) [Paul Döhle, Ger. pathologist, 1855–1928] A leukocyte inclusion in the periphery of a neutrophil. It is composed of liquefied endoplasmic reticulum and is frequently accompanied by toxic granulations. Döhle bodies are present in association with burns, severe or systemic infections, exposure to cytotoxic agents, uncomplicated pregnancy, trauma, and neoplastic diseases. SEE: *illus.*



DÖHLE BODIES

(Orig. mag. ×1000)

dol The unit of pain intensity registered on a dolorimeter.

dolichocephalic (dōl'tī-kō-sī-fāl'ik) [Gr. *dolichos*, long, + *kephale*, head] Having a skull with a long anteroposterior diameter.

dolichocolon (dōl'tī-kō-kō'lōn) [n + *kolon*, colon] An abnormally long colon.

dolichofacial (dōl'tī-kō-fā'shāl) Having a long face.

dolichohieric (dōl'ī-kō-hī-ēr'ik) [*l'* + *hi-eron*, sacred] Having a long, slender sacrum.

dolichomorphic (dōl'ī-kō-mor'fik) [*l'* + *morphe*, form] Pert. to a body type that is long and slender. SEE: *ectomorphic*.

dolichopellic, dolichopelvic (dōl'ī-kō-pél'ik, -pél'vik) [*l'* + *pyelos*, an oblong trough] Having an abnormally long or narrow pelvis.

dolichosigmoid (dōl'ī-kō-sīg'moyd) [*l'* + *sigmoeides*, sigmoid] Having an abnormally long sigmoid colon.

doll's eye maneuver A test of the oculocephalic reflex that can be used to assess the integrity of the brainstem in neonates and comatose patients. During the evaluation of the comatose patient, with the patient's eyes held open, the head is quickly rotated from one side to the other. Both eyes should deviate to the side opposite the direction of head rotation. If this response is absent, there may be damage to the brainstem or oculomotor nerves. By contrast, in the evaluation of the newborn (whose nervous system is immature), the irises normally remain in midline despite the rotation of the head. SEE: *coma*.

dolor (dō'lor) *pl. dolores* [L.] Pain. This is one of the principal indications of inflammation. The others are rubor (redness), tumor (swelling), *functio laesa* (loss of function), and calor (heat).

dolorimeter (dō'lor-īm'ī-tēr) [*l'* + Gr. *metron*, measure] A device that applies pressure evenly and reproducibly to a body part; it can be used to measure a patient's pain tolerance (e.g., in arthritis or fibromyalgia).

dolorogenic (dō'lor-ō-jěn'ik) [*l'* + Gr. *gennan*, to produce] Causing pain.

domain (dō-mān) In immunology, the portion of a protein, such as an immunoglobulin, that has a functional role independent of the remainder of the protein.

lipid d. Lipid raft.

dome (dōm) [L. *domus*, house] A semi-circular or balloon-shaped weakness in the wall of an aneurysm.

domiciliary (dōm'ī-sil'ē-ār'ē) [L. *domus*, house] Pert. to or conducted in a house.

domiciliary care facility A home providing mainly custodial and personal care for persons who do not require medical or nursing supervision, but may need assistance with activities of daily living because of a physical or mental disability. This may also be referred to as a sheltered living environment. SEE: *adult foster care*.

dominance [L. *dominans*, ruling] **1.** A genetic pattern of inheritance in which one of an allelic pair of genes has the capacity to suppress the expression of the other so that the first prevails in the heterozygote. **2.** Often, the preferred hand or side of the body, as in right-

hand dominance. **3.** In psychiatry, the tendency to be commanding or controlling of others.

cerebral d. The control of speech and handedness by one hemisphere of the brain. In 90% to 95% of human beings, the left cerebral hemisphere is functionally dominant; as a result most people are right-handed. A lesion (e.g., a stroke or tumor) to the left cerebral hemisphere of such people will produce aphasia and right-sided paralysis. Aphasia rarely occurs in right-handed people from a right cerebral lesion. In 60% of left-handed people with aphasia from a cerebral lesion, the left side is affected. In some left-handed patients, it is possible that language function is controlled partially by both the left and right cerebral hemispheres. SEE: *stroke*.

ocular d. The use of one eye by choice for particular tasks such as aiming a gun. This may or may not be related to right-hand or left-hand dominance.

dominant In genetics, concerning a trait or characteristic that is expressed in the offspring although it is carried on only one of the homologous chromosomes. SEE: *recessive*.

dominant hand In American Sign Language, the hand that moves during the formation of a sign.

domoic acid A toxin that resembles the brain's main excitatory amino acid (glutamate); when ingested it may cause continuous seizures.

Donath-Landsteiner antibody, Donath-Landsteiner test (dō'nāth-lānd'stī-nēr) [Julius Donath, Austrian physician, 1870–1950; Karl L. Landsteiner, Austrian-born U.S. biologist, 1868–1943] A test for paroxysmal hemoglobinuria. Blood from the patient is cooled to 5°C, and a cold hemolysin in the plasma combines with the red blood cells if the patient has the disease. On warming, the sensitized red cells are hemolyzed by the complement normally present.

donation, organ The removal of a body part from one person for transplantation into another, typically to restore functional capacity.

PATIENT CARE: Organ donation may occur during life, e.g., when a matched individual makes the choice to give bone marrow or a kidney to another; or it may occur at death, by individuals who have indicated their desire to be organ donors if they suffer fatal accidents. Health care professionals working with trauma patients have a significant effect on increasing the number of organ donations through prompt identification of possible donors and the provision of hemodynamic management to preserve organ function and health. SEE: *donor card; transplantation*.

donation rate In organ transplantation-

 **Fold Here** 

UNIFORM DONOR CARD Carry with your driver's license

Name: _____

In the hope that I may help others, I hereby make this anatomical gift, if medically acceptable, to take effect upon my death. The words and marks below indicate my desire:

I Give: (a) _____ any needed organ or tissues
(b) _____ only the following organs or tissues:
_____ specify organ(s) or tissue(s):
_____ for the purpose of transplantation, therapy, medical research or education.

Limitations or special wishes, if any: _____

Signed by the donor and the following witnesses in the presence of each other:

Signature of the Donor Date of Birth _____

City/State Date Signed _____

Witness: _____

Witness: _____

This is a legal document under the uniform Anatomical Gift Act or similar laws.
NOTE: If you are under 19 years of age, please have your signature witnessed by a parent or guardian.
TO NEXT OF KIN: Please notify physician that I am a donor.

UNIFORM DONOR CARD

the number of potential organ donors in a community divided by the number of actual donors.

donation service area In U.S. organ donation, a region of the country usually specified as containing certain counties from which all organs received from nonexcluded donors may be obtained by an organ procurement organization.

dong quai, dang gui (dōng kwī) [Chinese] An herbal remedy from the East Asian perennial herb *Angelica sinensis*, promoted for its palliative effects on the symptoms of menopause. Formal studies of the herb show that it is ineffective in relieving hot flashes.

Donnan's equilibrium (dōn'ănz) [Frederick G. Donnan, Brit. chemist, 1871–1956] A condition in which an equilibrium is established between two solutions separated by a semipermeable membrane so that the sum of the anions and cations on one side is equal to that on the other side.

donor **1.** A person (or animal) that furnishes blood, tissue, or an organ to be used in another person. **2.** In chemistry, a compound that frees part of itself to unite with another compound called an acceptor.

blood d. One who gives blood to be used for transfusion.

cadaveric d. A person who donates an organ or tissue after his or her death.

living d. A person who donates an organ or tissue while he or she is still living. Living donors must be healthy and antigenically matched to the recipient.

universal d. A person whose blood is of group O and is therefore usually compatible with most other blood types. In actual practice this compatibility rarely occurs because of the many factors besides the major blood antigens (A, B, AB) that determine compatibility.

donor card A document used by a person who wishes to make an anatomical gift, at the time of his or her death, of an organ or other body part needed for transplantation. **SEE:** *illus.*; *transplantation*.

donor deferral registry, donor deferral tracking A means of tracking potential blood donors whose blood has been rejected at one location so that these people cannot attempt to donate blood products at other facilities.

do not attempt resuscitation **ABBR:** DNAR. An order somewhat more precise than “do not resuscitate” (DNR). DNR implies that, if a resuscitation attempt is made, the patient can be revived. DNAR indicates that resuscitation efforts should not be attempted regardless of their expected outcome. **SEE:** *do not resuscitate*.

do not hospitalize **ABBR:** DNH. An advance directive that explicitly limits the transfer of patients from the community to hospitals. Patients or their surrogate decision makers may choose DNH status when they hope to die in familiar surroundings or when they perceive further hospital care to be futile.

do not resuscitate **ABBR:** DNR. An order stating that a patient should not be revived. It may be written by a physician at the patient's request. If the patient is not competent or is unable to make such a decision, the family, legal guardian, or health care proxy may request and give consent for such an order to be written on the patient's chart and followed by the health care providers. The hospital or physician should have policies regarding time limits and reordering. **SEE:** *do not attempt resuscitation*.

Donovan body (dōn'ō-văn) *pl. bodies* [Charles Donovan, Ir. physician, 1863–1951] The intracytoplasmic inclusion present in the microphages of a patient

having granuloma inguinale caused by *Klebsiella granulomatis*.

donovanosis (dŏn'ō-vā-nō'sīs) SEE: *granuloma inguinale*.

DOOR syndrome An acronym for an autosomal recessive syndrome characterized by congenital Deafness, Onychodystrophy (abnormal development of the nails), Osteodystrophy (abnormal development of bones), and mental Retardation.

dopa, DOPA (dŏp'ā) A chemical substance, 3,4-dihydroxyphenylalanine, produced by the oxidation of tyrosine to tyrosinase. It is a precursor of catecholamines and melanin.

dopamine (dŏ'pā-mēn) A catecholamine synthesized by the adrenal gland. Synthetic dopamine (d. hydrochloride) is used to treat cardiogenic and septic shock. Dopamine affects nerves and blood vessels, among other tissues. In the brain, it works as a neurotransmitter, affecting cells that influence body movement, emotional states, and pleasure/reward. Its effects on receptors in the kidneys, blood vessels, and heart vary with the dose of the drug that is given. At low doses, about 2.0 to 10.0 μg/kg/min, it increases the force of heart muscle contraction, improves cardiac output, and increases heart rate. High doses (more than 10.0 μg/kg/min) elevate blood pressure by causing vasoconstriction.



Dopamine hydrochloride should not be administered as a bolus or by intravenous push. The access used to infuse dopamine should be monitored frequently for evidence of extravasation. Other drugs should not be coadministered through the same tubing. Frequent monitoring of blood pressure, pulse, and renal function are required during the infusion.

dopaminergic (dŏ'pā-mēn-ēr'jĭk)

1. Caused by dopamine. 2. Concerning tissues that are influenced by dopamine.

dopa-oxidase (dŏ'pā-ŏk'sī-dās) An enzyme in some epithelial cells that converts dopa to melanin.

dope A slang term used to describe almost any drug of abuse. SEE: *doping*; *blood doping*.

doping (dŏ'pĭng) In sports, the illicit use of a drug or blood product by an athlete in an effort to improve performance.

blood d. The illicit technique of increasing one's hematocrit prior to athletic competition either by surreptitiously injecting erythropoietin or by autologous transfusion.

Doppler echocardiography The use of ultrasound technology to determine blood flow velocity in different loca-

tions in the heart, but esp. across the heart valves.

Doppler effect (dŏp'lēr) [Johann Christian Doppler, Austrian scientist, 1803–1853] The variation of the apparent frequency of waves, such as sound waves, with change in distance between the source and the receiver. The frequency seems to increase as the distance decreases and to decrease as the distance increases.

Doppler measurement of blood pressure and fetal heart rate Use of Doppler sound waves to determine systolic blood pressure, as well as to determine the fetal heart rate.

Doppler velocimetry The use of Doppler ultrasound to determine the speed of blood flow through arteries and veins. During pregnancy, for example, Doppler ultrasonography can determine whether blood flow rates are adequate in the uterine artery, placenta, and umbilical cord vessels. SEE: *uteroplacental insufficiency*.

Dorendorf's sign (dor'ēn-dorfs) [Hans Dorendorf, Ger. physician, 1866–1953] A filling or fullness of the supraclavicular groove in an aneurysm of the aortic arch.

dormancy (dor'mān-sē) Temporary inactivity; e.g., a state of transiently reduced metabolic activity. **dormant**, *adj.*

dornase (dor'nās) Short for deoxyribonuclease.

d. alfa An enzyme that lessens the viscosity of sputum by cleaving DNA deposited in it. It is used to treat patients with cystic fibrosis, who have exceptionally thick pulmonary secretions that are hard to expectorate.

pancreatic d. Dornase prepared from beef pancreas, used to loosen thick pulmonary secretions.

dors- SEE: *dorso-*.

dorsad (dŏr'sād) [r + *ad*, toward] Toward the back.

dorsal (dŏr'sāl) [Med. L. *dorsalis*, fr. L. *dorsum*, back] 1. Pert. to the dorsum (back). 2. In quadrupeds, pert. to or located at or near the upper part; opposite of ventral. 3. In human anatomy, pert. to or located at the back or posterior part in human anatomy; opposed to ventral. In human anatomy, "caudal," "dorsal," and "posterior" mean the same thing.

dorsal cord stimulation The relief of pain with electric stimulation of the posterior spinal cord.

dorsal hump An enlargement or lump on the nasal bridge. In rhinoplasty a rasp is used to reduce it.

dorsalis (dor-sā'lis) [L.] Dorsal (i.e., pert. to the back).

dorsal reduction Surgery to decrease the size or prominence of the bridge of the nose.

dorsal reflex Irritation of the skin over the erector spinae muscles, causing contraction of muscles of the back.

dorsal slit A surgical method of making the foreskin of the penis easily retractable. The foreskin is cut in the dorsal midline but not far enough to extend into the mucous membrane next to the glans.

dorsi- SEE: *dorso-*.

dorsiduct (dor'sī-dūkt") [L. *dorsum*, back, + *ducere*, to lead] To draw toward the back or backward.

dorsiduction (dor'sī-dūk'shūn) Drawing toward the back.

dorsiflect (dor'sī-flēkt) [r + *flectere*, to bend] To bend backward.

dorsiflexion (dor'sī-flēk'shūn) Movement of a part at a joint to bend the part toward the dorsum, or posterior aspect of the body. Thus, dorsiflexion of the foot indicates movement backward, in which the foot moves toward its top, or dorsum; the opposite of plantar flexion. Dorsiflexion of the toes indicates a movement of the toes away from the sole of the foot. When the hand is extended, or bent backward at the wrist, it is dorsiflexed; this is the opposite of palmar flexion, or volar flexion of the wrist.

dorso-, dorsi-, dors- Combining forms indicating back.

dorsolateral (dor'sō-lāt'ēr-āl) Pert. to the back and side. SEE: *posterolateral*.

dorsoplantar (dor'sō-plān'tār) [r + *planta*, sole of the foot] From the top to the bottom of the foot.

dorsoventral (dor'sō-vēn'trāl) Concerning the back and frontal surfaces of the body.

dorsum (dor'sūm) [L.] The back or posterior surface of a part; in the foot, the top of the foot.

dosage (dō'sij) [Gr. *dosis*, a giving] **1.** A specified or prescribed quantity of any therapeutic intervention. **2.** The determination of the prescribed quantity of a therapeutic agent.

d. calculation for children Any means used to estimate the optimal treatment for a child that takes into account variables such as the smaller body mass and/or increased metabolic rate of pediatric patients.

dose (dōs) [Gr. *dosis*, a giving] **1.** The amount of medicine or radiation administered. **2.** The measurable exposure to an agent, e.g., to a poison, a quantity of radiation, or an irritant in the environment.

absorbed d. SEE: *radiation absorbed dose*.

air d. The intensity of radiation measured in air at the target.

birth dose Any dose (e.g., of a vaccine) administered to a neonate. The term is commonly used to describe a neonatal injection of hepatitis B vaccine.

bolus d. A quantity of fluid or medicine given intravenously at a controlled, rapid rate.

booster d. SEE: *booster*.

collective d. SEE: *cumulative dose*.

cumulative d. 1. The total medication or radiation dose to which an organism is exposed after repeated treatments. **2.** The amount of a drug present in the body after repeated doses.

curative d. The dose required to heal an illness or disease.

divided d. Fractional portions of a dose administered at specified intervals. For example, a patient may be given 2 g of cephalexin daily, divided as 500 mg orally every 6 hr.

equianalgesic d. A dose of one form of analgesic drug equivalent in pain-relieving effect to another analgesic. In pain control, this equivalence permits substitution of one analgesic to avoid undesired side effects from another.

erythema d. Minimal erythema dose.

fatal d. A dose that kills. SEE: *median lethal d.*

infective d. The number of infectious organisms, esp. bacteria or viruses, that will cause disease in a healthy organism.

lethal d. The dose of a substance that results in the death of cells, tissues, or the organism.

maintenance d. The dose required to sustain a desired effect.

maximum d. The largest dose that is safe to administer.

maximum permissible d. ABBR: MPD. The highest dose of radiation to which a person may be exposed over 1 year.

mean marrow d. ABBR: MMD. An estimated measure of average radiation exposure given to the blood-forming progenitor cells of the bone marrow, e.g., in whole body radiation treatment. The percentage of active bone marrow in the useful beam is multiplied by the average absorbed dose.

median curative d. A dose that cures half of all treated patients.

median infective d. ABBR: ID₅₀. An infective dose that causes disease in half the subjects exposed to it.

median lethal d. ABBR: LD₅₀. The amount of a substance, bacterium, or toxin that will kill 50% of the animals exposed to it. SEE: *minimum lethal d.*

minimal erythema d., minimum erythema dose ABBR: MED. The shortest exposure to ultraviolet radiation that produces reddening of the skin within 1 to 6 hr and disappears in 24 hr. The minimal erythema dose is used to calculate the duration of therapeutic exposure to ultraviolet light. For treatment using a "hot" ultraviolet lamp (UV-A or UV-B), the dose is calculated at a distance of 30 in. The minimal



erythema dose for “cold” ultraviolet (UV-C) is standardized at 30 to 38 sec at a distance of 1 in. SYN: *erythema dose*; *threshold dose*. SEE: table.



Burning, edema, and peeling occur at doses at or above the second degree erythema dose.

Ultraviolet Treatment Dosages

Dose	Description
Suberythema dose (SED)	No erythema
Minimal erythema dose (MED)	Smallest dose that produces erythema within 1 to 6 hr and disappears within 24 hr
First degree erythema dose (E ₁)	Erythema lasts for 1 to 3 days. Some scaling of the skin is present. E ₁ is approximately 2.5 times the MED.
Second degree erythema dose (E ₂)	Erythema with associated edema, peeling, and pigmentation. E ₂ is approximately 5 times the MED.
Third degree erythema dose (E ₃)	Severe erythema and burning with associated blistering, peeling, and edema. E ₃ is approximately 10 times the MED.

minimum d. The smallest effective dose.

minimum lethal d. The smallest amount of a substance capable of producing death. SEE: *median lethal d.*

percentage depth d. In radiation therapy the ratio of the absorbed dose at a given depth to the absorbed dose at a fixed reference depth. It is dependent on four factors: energy, depth, field size, and source-to-skin distance.

primary d. An initial, large dose given to provide a high blood level as soon as possible.

radiation d. Energy (joules) deposited by radiation in 1 kg of body tissue.

radiation absorbed d. ABBR: rad. The quantity of ionizing radiation, measured in rad or gray (Gy), absorbed by any material per unit mass of matter. One Gy equals 100 rad.

d. rate SEE: *under rate.*

skin d. A radiation dose to the skin including secondary radiation from backscatter.

sublethal d. A dose containing not

quite enough of a toxin or noxious substance to cause death.

test d. 1. A low dose of a medication given to assess its safety or tolerability.
2. A small dose given to determine its precise effect on living tissues.

therapeutic d. The dose required to produce the desired effect.

threshold d. SEE: *minimal erythema d.*

tissue culture infective d. ABBR: TCID₅₀. Dose that will produce a cytopathic effect in 50% of the cultures inoculated.

tissue tolerance d. The largest dose, esp. of radiation, that will not cause obvious or immediate disfunction in tissues.

tolerance d. The dose of a drug or physical agent (such as radiation) that will not cause perceptible or immediate injury. This dose will vary among individuals.

toxic d. A poisonous dose.

unit d. A dose of medicine prepared in an individual packet for convenience, safety, or monitoring.

dose area product ABBR: DAP. In nuclear medicine and radiology, the dose of radiation delivered to a patient or area of tissue multiplied by the area of skin exposed. The DAP gives an estimate of the likelihood of skin damage from a specific dose of radiation. It is measured in gray square centimeters.

dose escalation A progressive increase in the strength of any treatment (e.g., a drug or a radiation dose), to improve its tolerability or maximize its effect.

dose length product ABBR: DLP. The sum of the radiation to which a patient or area of tissue is exposed during the taking of a series of images.

dose-ranging study An investigation of different drug dosages to determine if any of the selected doses is better tolerated or more effective than the others.

dose reconstruction An estimate of the total exposure of a person or population to the environmental release of a toxic substance, such as a pollutant or a sudden burst of radiation.

dosha (dō'shā) [Sanskrit, lit. “fault, disease”; sometimes “(bodily) humor”] In ayurvedic medicine, one of three principles that link the body, its elemental liquids, and the mind.

dosimeter (dō-sim'î-tēr) [“ + *metron*, measure] A device for measuring the output of any ionizing radiation.

dosimetric (dō'sî-mêt'rik) Pert. to dosimetry.

dosimetry (dō-sim'è-trē) [“ + *metron*, measure] Measurement of doses.

dosing weight (dōs'ing) [“] The body weight to be used for calculating the appropriate dosage of a medication for those whose weight exceeds the usual average range. Weight-based dosing is

used to correct for different drug distributions and pharmacodynamics in overweight or obese patients.



Obese patients metabolize fat-soluble medications differently from lean patients, and the differences may result in clinically important under medication or overmedication. One formula used to calculate a safe weight-based dosage for obese patients depends on the total body weight (TBW) and ideal body weight (IBW) as follows: dosing weight = $(0.3)(TBW - IBW) + IBW$.

DOT *directly observed therapy.*

dotage (dōt'ij) [ME. *doten*, to be silly] A pejorative term for cognitive impairment.

double (düb'l) [L. *duplus*, twofold] Duplicate, or combining two qualities.

double-blind Pert. to a method, study, or clinical trial in which neither the subject nor the investigator knows what treatment or medication, if any, the subject receives. A double-blinded study attempts to eliminate observer and subject bias. SEE: *blinded*; *single-blind*.

double chin Buccula.

double diabetes A colloquial term, also known as "hybrid diabetes," "type 3 diabetes," or "type 1 and a half" diabetes in which patients have clinical features of both type 1 and type 2 diabetes mellitus.

double effect In ethics, the doctrine or principle explaining under what conditions one may perform an act that has both good and bad consequences. In medicine, an example of the double effect is that the medications used in palliative care may have the side effect of hastening death even though the intent of the practitioner is to achieve relief of symptoms and not euthanasia.

double personality Dissociative identity disorder.

double reading Evaluation of the results of an examination, especially a mammogram, by two individuals. SEE: *mammography*.

double uterus A congenital anomaly in which abnormalities in the formation of the müllerian ducts result in a duplication of the uterus, a uterus with a divided cavity, or sometimes, two copies of the cervix or vagina. SYN: *dimetria*; *uterus didelphys*.

douche (doosh) [Fr.] A current of vapor or a stream of water directed against a body part. A douche may be plain water or a medicated solution. It may be for personal hygiene or treatment of a local condition.

air d. An air current directed onto the body for therapeutic purposes, usually directed to the tympanum for opening the eustachian tube.

astrigent d. A douche containing substances such as alum or zinc sulfate for shrinking the mucous membrane.

circular d. A fine spray or application of water to the body through horizontal needle-sized jets. Several small rows of sprays project the water from four directions simultaneously.

cleansing d. An external or perineal douche for cleansing genitalia following defecation or after operations such as hemorrhoidectomy, curettage, rectal surgery, circumcision, or perineorrhaphy. A mild antiseptic or disinfectant solution, 98° to 104°F (36.7° to 40°C), is poured or sprayed over the parts, followed by gentle drying and inspection for cleanliness. SYN: *perineal cascade*.

deodorizing d. An over-the-counter feminine hygiene product. Routine use of such products is unnecessary and may be harmful because it may alter the normal vaginal flora and increase susceptibility to infections.

jet d. A douche applied to the body in a solid stream from the douche hose.

medicated d. A douche containing a medicinal substance for the treatment of local conditions.

nasal d. An injection of fluid into the nostril with fluid escaping through the nasopharynx out of the mouth. The patient should keep the mouth open and the glottis closed to prevent fluid from entering the throat and bronchus, and should not blow his or her nose during the treatment. The force of the douche must be moderate. The container should not be suspended more than 6 in (9.2 cm) above the patient. An atomized spray works more quickly.

neutral d. A douche given at the average surface temperature of the body (i.e., 90° to 97°F [32.2° to 36.1°C]).

perineal d. A spray projected upward from a bidet, placed just above the floor; the patient sits on the seat and receives the douche on the perineum.

vaginal d. Gentle, low-pressure irrigation of the vagina. Common protocols for antiseptic irrigations require preparing and administering 1000 to 2000 ml of 105°F (40.5°C) povidone-iodine solution while maintaining standard precautions. For hemostasis, solution temperature is increased to 118°F or 120°F (47.8° to 48.9°C). The container should be elevated up to 2 ft (61 cm) above the woman's pelvis to allow slow, low-pressure flow of the solution.

NOTE: The vagina, like many other areas of the body, can cleanse itself. Thus there is very little reason for a normal, healthy woman to use a vaginal douche. Douching can upset the balance of the vaginal flora and change the vaginal pH, thus predisposing the woman to vaginitis. There is no evidence that a

postcoital vaginal douche is effective as a contraceptive.

In at least one investigation, vaginal douching has been shown to be a risk factor for pelvic inflammatory disease (PID). The more frequently the subjects douched, the more likely they were to have PID.

Douglas, James Scottish anatomist, 1675–1742

D. cul-de-sac, Douglas' pouch The peritoneal space or pouch that lies behind the uterus and in front of the rectum.

Douglas bag (dŭg'läs) [Claude G. Douglas, Brit. physiologist, 1882–1963] A container, usually a bag made of flexible material, for collecting expired air. It is used in investigating respiratory function and physiology.

Douglas' line A crescent-shaped line at the lower limit of the posterior sheath of the rectus abdominis muscle. It is sometimes indistinct.

doula (doo'lā) **1.** A woman trained to provide emotional support, guidance, and comfort measures during childbirth. **2.** Highest ranking ancient Greek female servant who assisted women during childbirth.

dowager's hump (dow'ä-jerz) Cervical lordosis with dorsal kyphosis due to slow loss of bone (i.e., osteoporosis). This may occur at any age but is seen most commonly in elderly women.

dowel (dow'īl) [ME. *dowle*, peg] A fastening pin, used, e.g., in orthopedic surgery or in dental casting.

down **1.** Lanugo, the fine hairs of the skin of the newborn. **2.** The fine soft feathers of the young of some birds and the small feathers underneath the large feathers of adult birds, particularly waterfowl. It is used in clothing to give protection from the cold.

downcode (down'kōd") To assign a lower billing code than usual to a patient visit.

downregulate (down-rĕg'ū-lāt") To inhibit or suppress the normal response of an organ or system (e.g., the immune system or the central nervous system).

downstream In descriptions of genetic material, codons or base pairs that are on the 3' side of a specific gene.

Down syndrome (down) [J. Langdon Down, Brit. physician, 1828–1896] The clinical consequences of having three copies of chromosome 21. The condition is marked by mild to moderate mental retardation and physical characteristics that include a sloping forehead, low-set ears with small canals, and short broad hands with a single palmar crease ("simian" crease). Cardiac valvular disease and a tendency to develop Alzheimer-like changes in the brain are common consequences of the syndrome. The syndrome is present in

about 1 in 700 births in the U.S. and is more common in women over age 34 or when the father is older than 42. In women who conceive after age 45, the incidence rises dramatically. SYN: *trisomy 21*. SEE: *amniocentesis; chorionic villus sampling; mosaicism; Nursing Diagnoses Appendix*.

Women at high risk of giving birth to a child with Down syndrome are those over 34, those who have had a previous child with the syndrome (1%-2%), and those who themselves have Down syndrome (pregnancy is rare in this condition, although females may menstruate and be fertile). In addition, there is a high risk of having a child with Down syndrome when there is parental mosaicism with a 21 trisomic cell population.

ETIOLOGY: Patients with Down syndrome have an extra chromosome, usually number 21 or 22.

DIAGNOSIS: Amniocentesis or chorionic villus sampling can be used to diagnose the syndrome early in pregnancy.

GENETIC MOSAICISM: The possibility of mosaicism should be explored when children who exhibit classic physical characteristics of Down syndrome later demonstrate normal or near-normal developmental cognitive abilities.

PATIENT CARE: The importance of amniocentesis in detecting the syndrome is explained to the at-risk pregnant woman and her partner or support person. Amniocentesis is recommended for women over age 34 even with a negative family history, as well as for a pregnant woman of any age when she or the father carries a translocated chromosome. Procedural and sensation information to communicate includes that the test can be conducted anytime after the 14th week of pregnancy (when sufficient amniotic fluid is present), only a small amount of fluid will be removed, and the potential for complications to the fetus or woman is less than 1%.

Throughout the procedure, emotional support is provided, and explanations are reinforced. Following the procedure, fetal heart rate is monitored for 30 min., and the woman is assessed for uterine contractions. If test results are positive, the patient is referred for genetic counseling. If she elects to have a therapeutic abortion, physical and emotional support are provided throughout and after the procedure, and postprocedure care is explained.

If the pregnancy continues, the patient and her partner must understand the multisystem anomalies that may occur. After delivery, the infant is assessed for the major clinical manifestations, including physical characteristics and congenital anomalies. Health care

professionals establish a trusting relationship with the parents, and parental responses, including grief, are anticipated, and support is provided. Encouraging the parents to hold and nurture their child is of great importance. The family is taught about management of the infant, beginning with possible feeding problems related to poor sucking ability and the risk for upper respiratory infections. A social worker may explore with the family available support systems and social and financial resources, making referrals to community agencies as appropriate.

The child with Down syndrome requires ongoing assessment for mental retardation, social development, sensory problems, physical growth, sexual development, and congenital anomalies. IQ ranges are usually between 30 and 70, but with social performance above the expected level. Early and maximal environmental stimulation positively affects intellectual function. Genitalia may be poorly developed, with delayed puberty; males are infertile, have low serum testosterone, and may have undescended testicles. The parents are advised that surgery may be indicated for correction of serious congenital anomalies. Such surgeries, and the use of antibiotics for recurring infections, have improved life expectancy for these children.

Most children with Down syndrome are cared for at home and attend special education classes with occasional mainstreaming. Balanced nutrition and exercise are increasingly important to prevent obesity. All Downs syndrome children should be checked for atlantoaxial (first cervical vertebra or atlas and second cervical vertebra or axis) instability. The child's participation in self-care, recreational, vocational, educational, and social opportunities to his or her maximum capabilities is encouraged. Other children in the family require emotional support from parents and trusted teachers and counselors. Adult patients may live in a group home facility or work in a sheltered workshop. The family also is encouraged and assisted to investigate opportunities for and with the child, such as Special Olympics, sheltered workshops, and residential care settings, and to use available supportive services and organizations, such as the National Down Syndrome Congress or the National Down Syndrome Society (800-221-4602; www.ndss.org).

doxazosin (dōk'să'z-ă-sīn) A peripherally acting antiadrenergic administered orally to treat hypertension and to manage the symptoms of benign prostatic hyperplasia.

2,3-D.P.G. *2,3-diphosphoglycerate.*

DR *reaction of degeneration.*

Dr. *Doctor.*

dr *drachm; dram.*

dracotoxin (dră'kō-tōk-sīn) [*Gr. Draco*, an ancient Athenian who promulgated laws, + *toxikon*, poison] A 105-kilodalton protein isolated from the glands of the weever fish, a common bottom-dwelling poisonous fish. The protein destroys blood cells and is damaging to nerves.

dracunculiasis (dră-kūng'kū-lī'ă-sīs) Infestation with the nematode *Dracunculus medinensis*.

dracunculosis (dră-kūng'kū-lō'sīs) Dracunculiasis.

Dracunculus (dră-kūng'kū-lūs) A genus of parasitic nematodes.

D. medinensis The scientific name for the guinea worm, a human parasite found esp. in Sudan, Ghana, and other African nations. The guinea worm causes infection when its larvae are drunk in unfiltered or unsanitary water. The larvae enter the body through the stomach or duodenum, migrate through internal organs, and become adults. After mating, the adult female burrows to the subcutaneous tissue, often of the leg. **SEE: illus.**



DRACUNCULUS MEDINENSIS

Guinea worm being removed from ulcer

draft, draught A dose of liquid medicine intended to be taken all at once.

drain (drān) [*AS. dreahtian*, to draw off]

1. An exit hole or a tube in a body space, used to evacuate unwanted blood, cellular debris, fluids, or pus. **2.** To draw off a fluid.

capillary d. A drawing off by capillary attraction.

cigarette d. A drain made by covering a small strip of gauze with rubber.

Mikulicz's d. **SEE: Mikulicz's drain.**

nonpermeable d. A drain made from various synthetics (e.g., silicones) and dynamic devices (e.g., suction catheters). Types include abdominal, antral, perineal, and suprapubic.

Penrose d. [Charles B. Penrose, 20th-century American surgeon] A

drain made of a piece of small rubber tubing.

surgical d. A drain that withdraws blood, pus, or other fluids from an operative site. It may be placed in an abscess, e.g., to speed recovery from a localized infection, or in a cyst or seroma, to remove collected fluids and cells. Drains may also be inserted into obstructed organs to relieve pressure resulting from fluid buildup within the organs. Surgical drains are composed of a variety of substances, such as latex or plastic.

drainage (drān'ij) The flow or withdrawal of fluids, such as blood, infused saline, pus, and collected debris, from a cavity, organ, surgical site, or wound. SEE: *autodrainage*; *drain*.

active d. Drainage in which negative pressure is maintained in the tube. It is used in treating pneumothorax and in certain types of drains or catheters in the intestinal tract, body cavity, or surgical wound. SYN: *negative pressure drainage*; *suction drainage*.

autogenic d. A diaphragmatic breathing pattern used by patients with respiratory illnesses (e.g., cystic fibrosis, bronchiectasis) to clear the lungs of mucus and other secretions. Various techniques are used, all of which combine positive reinforcement of deep breathing and voluntary cough suppression for as long as possible before evacuating the airways of mucus.

capillary d. Drainage by means of capillary attraction.

chest d. Placement of a drainage tube in the chest cavity, usually in the pleural space. The tube is used to drain air, fluid, or blood from the pleural space so the compressed and collapsed lung can expand. The tube is connected to a system that produces suction. This helps to remove the material from the pleural space and also prevents air from being sucked into the space.

closed d. Drainage of a wound or body space into a self-contained, sealed collecting system.

closed sterile d. A sterile tube draining a body site, such as the abdominal cavity or pleural space, that is designed to prevent the entry of air and bacteria into the tubing or the area being drained.

manual lymphatic d. ABBR: MLD. Gentle massage techniques used to correct localized lymphedema (e.g., in patients who have swelling of the arm after mastectomy). Superficial massage is used; the direction of applied pressure depends on the treatment area.

negative pressure d. Active drainage.

open d. Drainage of a wound or body cavity using absorbent materials or

catheters that are in contact with the ambient conditions outside the patient.

pleural d. unit ABBR: PDU. A device used to evacuate fluids from the pleural cavity. Most PDUs consist of three chambers: one to collect fluids such as blood or pus, a second to maintain a water seal, and a third to control suction.

postural d. SEE: *postural drainage*.

suction d. Active drainage.

through-and-through d. Irrigation and drainage of a cavity or an organ such as the bladder by placing two perforated tubes, drains, or catheters in the area. A solution is instilled through one catheter, and the other tube collects the returned fluid actively (by suction) or passively.

tidal d. A method, controlled mechanically, of filling the bladder with solution by gravity and periodically emptying the bladder with a catheter. It is usually used when the patient lacks bladder control as in injuries or lesions of the spinal cord.

Wangenstein d. SEE: *Wangenstein tube*.

drainage tube A tube that, when inserted into a cavity, facilitates removal of fluids.

drained weight The actual weight of food that has been allowed to drain to remove the liquids in which it has been prepared.

dram (drām) [Gr. *drachme*, a Gr. unit of weight] ABBR: dr. SYMB: 5. A unit of weight in the apothecaries' system. SYN: *drachm*.

drape (drāp) [F. *drap*, cloth] A covering, usually of cloth, plastic, or sterile paper, used to cover body parts (e.g., during surgical operations or the examination of patients).

drapetomania (drāp'ēt-ō-mā'nē-ā) [Gr. *drapetes*, runaway, + *mania*, madness] Wandering behavior; an uncontrollable urge to travel.

drastic [Gr. *drastikos*, effective] **1.** Excessively vigorous; said in the past of some medications. **2.** A very active cathartic, usually producing many explosive bowel movements accompanied by pain and tenesmus. The use of this type of cathartic is not advisable.

draught (drāft) [ME. *draught*, a pulling] **1.** A drink. **2.** Liquid drawn into the mouth. **3.** A breeze produced by wind or a fan. **4.** Draft.

Draw-a-Person test A nonverbal test used to assess intelligence and to screen for emotional and behavioral disorders. It was developed in 1967 by Karen Machover. The test subject is asked to draw an image of a man, a woman, and oneself. The images drawn are assessed according to several criteria for their complexity, completeness, and other qualities. SYN: *Machover test*.

drawer sign, drawer test Determination of the instability of ligaments by forcibly displacing one bone or structure relative to another.

1. Assessment of the cruciate ligament(s) of the knee. The knee is flexed to 90 degrees, with the foot stabilized on the examination table. The examiner applies an anterior, then a posterior, force against the upper tibia, perpendicular to the long axis of the leg. An increased glide, anterior or posterior, of the tibia is caused by rupture of the anterior or posterior cruciate ligament, respectively.

2. Assessment of the anterior talofibular ligament of the ankle. The foot is placed in its neutral position, the knee is flexed to a minimum of 20 degrees to release the tension of the gastrocnemius muscle, and the tibia is stabilized. The examiner cups the posterior and plantar surface of the calcaneus and draws the foot forward, observing for increased displacement of the lateral foot and talus relative to the opposite extremity. These findings would suggest rupture of the ligament. SEE: *anterior drawer test*.

DRE *digital rectal examination*.

dream [AS. *dream*, joy] The occurrence of ideas, emotions, visual imagery, and other sensations during sleep. Some dreams may be recalled on awakening; others may not be. SEE: *REM*; *sleep*; *sleep disorder*; *wet dream*.

Interpretation of the meaning of dreams has been of interest to humans since the dawn of history and to psychoanalysts for the past 100 years. The idea that a dream conceals a meaning buried deep in the subconscious is probably mistaken and is difficult to confirm scientifically although it is still accepted by many psychoanalysts. Less controversial are the research results correlating changes in the electroencephalogram and rapid eye movements (REM) during sleep with dream activity.

dream state The state of diminished consciousness in which the surroundings are perceived as if in a dream.

drench A dose of medicine that is administered to an animal by pouring it into its mouth.

dressing [O.Fr. *dresser*, to prepare] A covering, protective or supportive, for diseased or injured parts.

PATIENT CARE: The procedure and expected sensations are explained to the patient. His or her privacy is ensured, and necessary supplies are assembled. Strict aseptic technique is followed during dressing changes, and dressings are properly disposed of in biohazard containers. Personnel must wash their hands before and after the procedure. The wound or incision and dressing are assessed for the presence and character of any drainage. The mnemonic COCA

(color, odor, consistency, amount) is useful in assessing and documenting drainage. The condition of the wound or suture line is also checked, and the presence of erythema or edema is noted. Instruction in wound assessment and dressing change techniques is provided to the patient and his or her family members. SEE: *wound care*.

absorbent d. A dressing consisting of gauze, sterilized gauze, or absorbent cotton.

antiseptic d. A dressing consisting of gauze permeated with an antiseptic solution.

clear transparent covering d. Transparent synthetic d.

dry d. A dressing consisting of dry gauze, absorbent cotton, or other dry material.

film d. A transparent wound covering, made of polyurethane, that enables health care providers to visually inspect an injured part as it heals. The dressing allows water vapor to escape from the wound but does not permit liquids or bacteria to enter.

foam d. An opaque polyurethane dressing that is permeable to vapors but partially occlusive to liquids. It is typically used to cover wounds over bony ridges or near inflamed skin.

hydrocolloid d. A flexible dressing made of an adhesive, gumlike (hydrocolloid) material such as karaya or pectin covered with a water-resistant film. The dressing keeps the wound surface moist, but, because it excludes air, it may promote anaerobic bacterial growth. It should not be used on wounds that are, or are suspected to be, infected. The directions that come with the dressing should be followed.

nonadherent d. A dressing that has little or no tendency to stick to dried secretions from the wound.

occlusive d. A dressing that seals a wound completely to prevent infection from outside and to prevent inner moisture from escaping through the dressing.

periodontal d. Periodontal pack.

pressure d. A dressing used to apply pressure to the wound. It may be used for arterial and venous punctures and wounds, venous insufficiency, venous ulcers, and following skin grafting.

protective d. A dressing applied for the purpose of preventing injury or infection to the treated part.

self-adhering roller d. A rolled gauze strip made of a material that adheres to one side of the gauze. It comes in various widths.

transparent synthetic d. A dressing usually made of a plastic material with the skin-contact side coated with a hypoallergenic adhesive. SYN: *clear transparent covering dressing*.

universal d. A large flat bandage that may be folded several times to make a relatively large dressing or folded several more times to make a smaller and thicker dressing. This process can be continued until the unit is suitable for use as a cervical collar. The bandage is easily made and stored. **SEE: illus.**

warm moist d. A dressing that most commonly uses a heated normal saline solution. The sterile towel is unfolded, and the gauze dressing is dropped into it. Then the center of the towel is immersed in solution and wrung out by turning the dry ends in opposite directions. The dressing is applied with sterile forceps directly to the wound. Sometimes a dry sterile towel is used over it to keep the dressing in place. Heat is best maintained by infrared lamp.



Care must be taken not to burn the patient.

water d. A dressing consisting of gauze, cotton, or similar material that is kept wet by the application of sterilized water.

wet-to-dry d. A dressing consisting of gauze moistened with prescribed solution (e.g., sterile saline) applied directly and conforming to the wound and covered with dry gauze pads and a bandage. Gentle removal of the dressing after it has dried provides some degree of débridement of the wound; the process is then repeated at intervals.

dressing stick An assistive device de-

signed to permit independent dressing by persons with limited motion. Also called *dressing wand*.

Dressler's syndrome (drēs'lērz) [William Dressler, U.S. physician, 1890–1960] Postmyocardial infarction syndrome, characterized by pleuritic chest pain, pericarditis, fever, and leukocytosis.

DRG *diagnosis-related group*.

drift Movement, often in an aimless fashion.

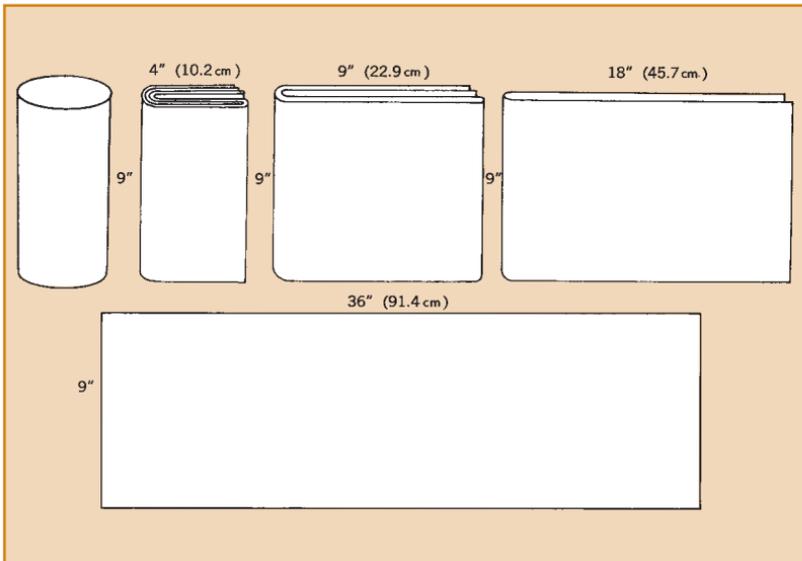
antigenic d. A minor change in the protein marker or antigen on an organism. Small changes in the antigenic surface markers of some microorganisms (such as the influenza virus) occur from year to year. Vaccinations against the virus are adapted annually to combat these changes and prevent epidemic infection.

genetic d. The chance variation of genetic frequency, seen most often in a small population.

mesial d. **SEE: mesial drift.**

drill A device for rotating a sharp and shaped cutting instrument, used for preparing teeth for restoration and in orthopedics. **SEE: bur.**

Drinker respirator (drīng'kēr) [Philip Drinker, U.S. engineer in industrial hygiene, 1894–1972] An obsolete apparatus in which alternating positive and negative air pressure on the patient's thoracic area was used to produce artificial respiration by allowing the air in the otherwise immobile lung to be alternately filled with air and emptied. This device is commonly called an *iron lung*.



UNIVERSAL DRESSING

drip [ME. *dripen*, to drip] **1.** To fall in drops. **2.** To instill a liquid slowly, drop by drop.

gravity d. Infusion of an intravenous solution by hanging the source of the solution above the patient and controlling the rate of flow with a manually operated clamp.

intravenous d. Slow injection of a solution into a vein a drop at a time.

Murphy d. Slow rectal instillation of a fluid drop by drop.

nasal d. A method of administering fluid slowly to dehydrated babies by means of a catheter with one end placed through the nose into the esophagus.

postnasal d. A condition due to rhinitis or sinusitis in which a discharge flows from the nasopharynx region into the oropharynx.

drive (driv) [AS. *drifan*] The force or impulse to act.

drive control One of various devices and adapted equipment, including hand or foot controls, for modifying a motor vehicle for use by persons with physical disability.

driver rehabilitation therapist A specialist who evaluates and provides training to increase driving independence in persons with physical, cognitive, or perceptual deficits. A trained expert in driver rehabilitation is known as a certified driver rehabilitation specialist (CDRS).

driving while intoxicated ABBR: DWI. A crime defined as the operation of a motor vehicle after the use of any substance, including alcohol or illicit drugs, that may impair one's judgment, cognition, coordination, reflexes, or ability to react appropriately in traffic. Most states rely on a standard test that includes both observable impairment in motor function, speech, and balance and an elevated blood alcohol level or a positive screening test for other intoxicants. Also called *driving under the influence*.

dromomania (drō'mō-mā'nē-ā) [Gr. *dromos*, a running, + *mania*, madness] An uncontrolled impulse to wander.

dromotropic (drō'mō-trōp'ik) [r' + *tropikos*, a turning] Affecting the conductivity of nerve or muscle fibers. SEE: *inotropic*.

dronabinol (drō-nāb'ī-nol) The principal psychoactive substance present in *Cannabis sativa* (marijuana). SEE: *marijuana*.

-dronate A suffix used in pharmacology to designate a drug that alters the metabolism of calcium.

drooling Ptyalism.

drop [AS. *dropa*] **1.** A minute spherical mass of liquid. **2.** Failure of a part to maintain its normal position, usually due to paralysis or injury.

culture d. A bacterial culture in a drop of culture medium.

hanging d. Application of a drop of solution to a small glass coverslip. This is then inverted over a glass slide with a depression in it. The contents of the suspended solution can be examined microscopically.

knock-out d. A colloquial term for a sedative.

nose d. Medication instilled in or sprayed into the nasal cavity.

wrist d. SEE: *wrist drop*.

drop arm test A test used to identify tears of the rotator cuff muscle group, esp. supraspinatus. With the patient sitting or standing, the fully abducted shoulder is slowly lowered to the side. In the presence of rotator cuff tears, the arm will fall uncontrollably to the side from a position of about 90 degrees of abduction.

drop attack A sudden fall with loss of muscular tone and loss of consciousness. Drop attacks may occur in patients with arrhythmias, autonomic failure, epilepsy, narcolepsy, strokes, and other diseases and conditions. Treatment depends on the underlying cause.

drop factor The number of drops of an infusion that add to a volume equal to 1 milliliter.

droplet A very small drop.

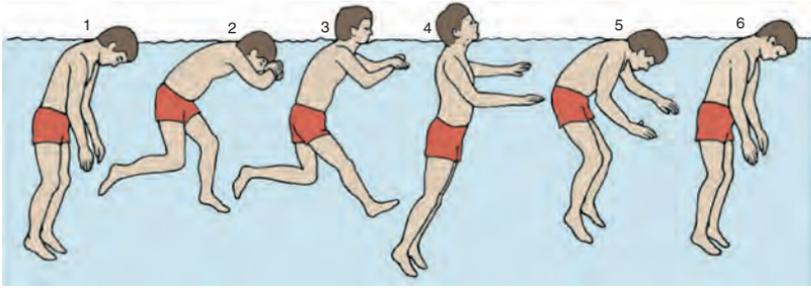
droplet nuclei Spray or mist in which infectious particles are suspended in air (e.g., from the cough or sneeze of an infected person). Many common contagious pathogens are spread by droplets, including adenovirus, corona virus, and influenza virus.

PATIENT CARE: Patients who present to urgent care facilities with cough or other respiratory symptoms are given masks to prevent the spread of droplet nuclei to other waiting patients or to staff. Standard precautions are also followed. Patients admitted to hospital who are suspected of harboring respiratory contagions may be placed in respiratory isolation (airborne precautions – special air handling and ventilation and the use of a respirator in addition to standard precautions when entering the patient's room) until the cause of their illness is identified.

dropout (drōp'out") **1.** An individual who matriculates in, but does not complete a course of study sponsored by an academic institution. **2.** One who, after enrollment, chooses not to participate in a research investigation. In health care jargon, those who stop participating in a study and do not maintain contact with the investigators are said to be "lost to follow-up."

dropper A tube, usually narrowed at one end, for dispensing drops of liquid. If water is so dispensed, about 20 drops equals 1 ml. SEE: *medicine dropper*.

medicine d. According to *USP XXII*,



1, Rest. 2, Get set. 3, Lift head, exhale. 4, Stroke and kick, inhale. 5, Head down, press. 6, Rest.

DROWNPROOFING TECHNIQUE

a tube made of glass or other suitable transparent material that generally is fitted with a collapsible bulb and, while varying in capacity, is constricted at the delivery end to a round opening having an external diameter of 3 mm. When held vertically, it delivers water in drops each weighing between 45 mg and 55 mg.

In using a medicine dropper, one should keep in mind that few medicinal liquids have the same surface and flow characteristics as water, and therefore the size of drops may vary considerably from one preparation to another.

When accurate dosing is important, one should use a dropper that has been calibrated for and supplied with the preparation. The volume error incurred in measuring any liquid by means of a calibrated dropper should not exceed 15% under normal use conditions.

dropsy (dröp'sē) [Gr. *hydor*, water] An obsolete term for generalized edema.

Drosophila (drö-söf'i-lä) A genus of flies belonging to the order Diptera. It includes the common fruit flies.

D. melanogaster A genus of fruit flies used extensively in the study of genetics. The development of the chromosome theory of heredity was largely the outcome of research on this species.

drowning [ME. *dr(ou)nen*, to drown] Death resulting from immersion and suffocation in a liquid.

near d. Survival after immersion in water. About 330,000 persons, most of whom are children, adolescents, or young adults, survive an immersion injury in the U.S. each year, and of these, about 10% receive professional attention. Many who suffer near drowning do so because of preventable or avoidable conditions, such as the use of alcohol or drugs in aquatic settings or the inadequate supervision of children by adults. Water sports (e.g., diving, swimming, surfing, or skiing) and boating or fishing accidents also are common causes of near drowning. A small percentage of near drowning episodes occur when pa-

tients with known seizure disorders convulse while swimming or boating.

ETIOLOGY: The injuries suffered result from breath holding ("dry drowning"), the aspiration of water into the lungs ("wet drowning"), and/or hypothermia.

SYMPTOMS: Common symptoms of near drowning result from oxygen deprivation, retention of carbon dioxide, or direct damage to the lungs by water. These include cough, dyspnea, coma, and seizures. Additional complications of prolonged immersion may include aspiration pneumonia, noncardiogenic pulmonary edema, electrolyte disorders, hemolysis, disseminated intravascular coagulation, and arrhythmias.

TREATMENT: In unconscious patients rescued from water, the airway is secured, ventilation is provided, and cardiopulmonary resuscitation is begun. Oxygen, cardiac, and blood pressure monitoring, rewarming techniques, and other forms of support are provided (e.g., anticonvulsants are given for seizures; electrolyte and acid-base disorders are corrected).

PROGNOSIS: Most patients who are rapidly resuscitated from a dry drowning episode recover fully. The recovery of near drowning victims who have inhaled water into the lungs depends on the underlying health of the victim, the duration of immersion, and the speed and efficiency with which oxygenation, ventilation, and perfusion are restored.

drownproofing A method of staying afloat by using a minimum amount of energy. It may be kept up for hours even by nonswimmers, whereas only the most fit and expert could swim for more than 30 min. Details of the drownproofing technique may be obtained from local chapters of the American Red Cross. **SEE: illus.**

TECHNIQUE: 1. *Rest:* The person takes a deep breath and sinks vertically beneath the surface, relaxes the arms and legs, keeps the chin down, and allows the fingertips to brush against the

knees. The neck is relaxed and the back of the head is above the surface. 2. *Get set*: The arms are raised gently to a crossed position with the back of the wrists touching the forehead. At the same time, the person steps forward with one leg and backward with the other. 3. *Lift head, exhale*: With the arms and legs in the previous position, the head is raised quickly but smoothly to the vertical position and the person exhales through the nose. 4. *Stroke and kick, inhale*: To support the head above the surface while inhaling through the mouth, the arms sweep gently outward and downward and both feet step downward. 5. *Head down, press*: As the person drops beneath the surface, the head goes down and the arms and hands press downward to arrest descent. 6. *Rest*: It is important to relax completely as in the first step for 6 to 10 sec.

drowsiness A decreased level of consciousness that often precedes or follows sleep.

daytime d. Drowsiness occurring during the day rather than just before normal bedtime. It may have many causes, including insomnia and other sleep disturbances, anxiety, overwork, or the effects of prescribed or abused drugs.

DRSP *Drug-resistant Streptococcus pneumoniae*.

drug [O.Fr. *drogue*, chemical material] Any substance that, when taken into a living organism, may modify one or more of its functions.

antimicrobial d. A chemical substance that either kills microorganisms or prevents their growth.

brake d. A popular term for a hormonal agent that prevents excessive growth in children.

code d. A medication used to treat acute, life-threatening emergencies including dysrhythmias, cardiac arrest, pulmonary edema, and shock. Code drugs include atropine, epinephrine, morphine, and vasopressin. SEE: *basic life support*; *code* (3); *code cart*.

counterfeit d. 1. Any drug that has been adulterated, contaminated, diluted, or falsely labeled. 2. Any drug that is marketed under false pretenses, as something that it is not.

designer d. An illicitly produced drug of abuse. "Designer drug" was coined by Gary Henderson, a contemporary pharmacologist. Designer drugs include methamphetamine, fentanyl and its analogues, and phencyclidine hydrochloride (PCP); they have serious side effects or are addictive. Designer drugs are manufactured idiosyncratically; deaths and injury from overdose are not uncommon.

disease-modifying antirheumatic d. ABBR: DMARD. A drug used to treat

rheumatoid arthritis that acts more slowly but more effectively than nonsteroidal anti-inflammatory drugs. Such drugs include hydroxychloroquine, methotrexate, and tumor necrosis factor inhibitors. SYN: *slow-acting antirheumatic drug*.

generic d. SEE: *generic drug*.

investigational new d. ABBR: IND. A drug available only for experimental purposes because its safety and effectiveness have not been proven.

look-alike d. 1. Any of a group of solid dosage forms of drugs that mimic various prescription drugs by size, shape, color, and markings. Some of these may be controlled drugs. 2. A drug that works much like another but varies in a minor or insignificant part of its chemical structure.

neuromuscular blocking d. A type of drug used during the administration of anesthesia to allow surgical access to body cavities (esp. in particular the abdomen and thorax) by preventing voluntary or reflex muscle movement. These drugs are also used to facilitate compliance in critically ill patients undergoing intensive therapy such as mechanical ventilation.

new d. A drug for which premarket approval is required by the Food, Drug and Cosmetic Act. For the most part, new prescription drugs have been regulated by new drug application and premarket approval regulations, but most drugs sold over the counter (OTC) and directly to the public (i.e., nonprescription drugs) have not. There has been increased interest in evaluating the safety and efficacy of at least some OTC drugs.

nonprescription d. Over-the-counter medication.

nonsteroidal anti-inflammatory d. ABBR: NSAID. A drug that has analgesic, anti-inflammatory, and antipyretic actions. NSAIDs are used to treat acute and chronic pain (e.g., of injuries, arthritis, and dysmenorrhea), to reduce inflammation, and to prevent complications in serious illness such as sepsis.



All NSAIDs increase the risk of gastrointestinal bleeding and ulceration and, to some extent, the risk of renal failure, liver function abnormalities, myocardial infarction, and stroke. These side effects occur most often in mature patients, e.g., those with multiple risk factors for atherosclerotic vascular disease.

Many patients experience side effects of these medications, including upper gastrointestinal inflammation or bleeding. These side effects occur most often in the elderly, tobacco users, and those who drink alcohol. Other potential com-

plications include acute and chronic renal failure, liver function abnormalities, and aseptic meningitis.

Members of this class of drugs include aspirin, ibuprofen, and naproxen.

PATIENT CARE: Patients who are sensitive to NSAID therapy are told to inform caregivers so that they will not be given NSAIDs. Patients are instructed to watch for adverse effects when taking a drug of this category and to report any gastrointestinal pain or bleeding. The patient should be cautioned not to take NSAIDs on an empty stomach but rather with milk, a meal, or an antacid. Skin should be protected from the sun, and pregnant women should avoid NSAIDs during their last trimester.

performance-enhancing drug Any drug used to gain an advantage in sports. Such drugs may improve endurance or strength or accelerate healing after injury.

psychotherapeutic d. A drug used to improve the principal symptoms (e.g., anxiety, depression, and psychosis) in the mentally disturbed.

psychotropic d. A drug that affects psychic function, behavior, or experience. Many drugs can be classed as intentionally psychotropic, but many other drugs also occasionally may produce undesired psychotropic side effects.

radioprotective d. A drug that protects humans against the damaging or lethal effects of ionizing radiation. For example, Lugol's solution blocks the uptake of inhaled or ingested radioactive iodine by the thyroid.

recreational d. A drug used for enjoyment rather than for a medical purpose.

scheduled d. SEE: *controlled substance act*.

slow-acting antirheumatic d. ABBR: SAARD. Disease-modifying antirheumatic d.

street d. A drug obtained illegally. A street drug is usually a drug of abuse.

sulfa d. Any drug of the sulfonamide group possessing bacteriostatic properties.

ulcerogenic d. A medicine, such as a nonsteroidal anti-inflammatory drug, that may cause peptic ulcers.

drug abuse The use or overuse, usually by self-administration, of any drug in a manner that deviates from the prescribed pattern.

Health care workers, many of whom have easy access to narcotics, are at high risk of abusing analgesics. Increased awareness of this problem has led hospitals to establish special programs for identifying these individuals, esp. physicians, nurses, and pharmacists, in order to provide support and ed-

ucation in an attempt to control the problem and prevent loss of license.

drug of abuse Any agent that impairs behavior, health, social interactions, or thought and is difficult not to use compulsively. Many of these agents, including ecstasy, lysergic acid (LSD), methamphetamines, the opiates, and phencyclidine, are considered controlled substances in the U.S. Alcohol and tobacco products are not traditionally considered to be drugs of abuse, although they are addictive and harm many people.

Drug Abuse Warning Network ABBR: DAWN. A national system of surveillance that records the number of deaths and emergency department visits caused by illicit drugs. It was renamed "New DAWN" in 2003.

drug addiction A compulsive and maladaptive dependence on a drug that produces adverse psychological, physical, economic, social, or legal ramifications. SEE: *abuse, substance; substance dependence*.

drug administration The giving of a therapeutic agent to a patient, e.g. by infusion, inhalation, injection, paste, suppository or tablet.

drug approval The formal process through which drugs are tested before they are permitted to be sold. In the U.S., the process involves a series of studies on small groups of patients affected by diseases for which the drug may prove beneficial. These trials include:

1. studies of the drug's safety;
2. studies of the drug's efficacy;
3. studies of the drug's comparative efficacy relative to other agents that treat the same or similar problems.

drug companion A medication whose efficacy depends on its use with a second agent. The same drug may have little effect when used alone.

drug delivery, new methods of Several methods of drug delivery have been used experimentally. Included are chemical modification of a drug to enable it to penetrate membranes such as the blood-brain barrier; incorporation of microparticles in colloidal carriers made of proteins, carbohydrates, lipids, or synthetic polymers; controlled-release systems that permit a drug to be delivered for very long periods; and transdermal controlled-release systems (e.g., those currently in use for administration of scopolamine or nitroglycerin). In addition to the use of various carriers for drugs, cell transplantation could be used to provide therapeutic agents, and the possibility of inserting genes into cells to produce desired effects is being explored. SEE: *liposome*.

drug dependence A psychic (and sometimes physical) state resulting from in-

teration of a living organism and a drug. Characteristic behavioral and other responses include a compulsion to take the drug on a continuous or periodic basis to experience its psychic effects or to avoid the discomfort of its absence. Tolerance may be present. A person may become dependent on more than one drug.

drug development, computer-assisted ABBR: CADD. The automated design and testing of new chemical compounds for therapeutic use. Commonly, CADD involves using computerized algorithms to build molecules with specific sizes, shapes, or combining characteristics and assessing the biological activity of the molecules in various solutions.

Drug Enforcement Administration number ABBR: DEA number. A number assigned by the DEA to health care providers indicating that the person or facility is registered with the DEA to prescribe controlled substances.

drug event, adverse An unpleasant or unwanted effect caused by medication. SYN: *adverse drug reaction*. SEE: *side effect*.

drug-fast Drug-resistant.

druggist (drŭg'ist) Pharmacist.

drug handling The manipulation of medications in order to administer them. It is important to carefully read the label or other printed instruction issued with medications. The ordered doses (quantities) should be measured accurately and never estimated. A measuring glass or spoon marked in milliliters, ounces, or both should be used. In giving a dose of medicine, it is necessary to know to whom it is to be given, what has to be given, when it has to be given, and the prescribed amount. If medicine is to be taken orally, the patient should be observed until he or she has actually swallowed it.

NOTE: The cover must never be left off the container because a necessary property may evaporate, the drug may become dangerously concentrated, or it may absorb moisture from the air and become difficult to handle or dilute. The drug storage compartment must be kept locked.

drug holiday A planned interruption in the use of a medication, usually to minimize its costs or to preserve its effectiveness for later use.

drug interaction The combined effect of drugs taken concurrently. The result may be antagonism or synergism, and may be lethal in some cases. It is important for the patient, pharmacist, physician, and nurse to be aware of the potential interaction of drugs that are prescribed as well as those that the patient may be self-administering.

Many patients, esp. the elderly, may take several medicines each day. The

chances of developing an undesired drug interaction increase rapidly with the number of drugs used. It is estimated that if eight or more medications are being used, there is a 100% chance of interaction.

drug overdose The clinical consequence of any excess dose of a drug (e.g., of a self-administered, potentially lethal dose of a drug of abuse, an antidepressant, a nonnarcotic pain reliever, or other medication). Drug overdose may be unintentional or deliberate. When such a dose results in coma or death, the person is said to have OD'd ("overdosed").

PATIENT CARE: Emergency department personnel assess the patient's airway, breathing, circulation, level of consciousness, and vital signs, and try to ascertain (from the patient or significant others) what drug was taken, how much, when, and by what route. Blood and urine (and when it becomes available, emesis) are sent to the laboratory for toxicology screening to aid in identifying specific substances.

If the drug was administered by inhalation or parenterally, or if time lapse has allowed for absorption, an intravenous site is established, and fluid is administered as prescribed to help flush out the substance. If the patient is unconscious on admission, he will be given a narcotic antagonist, a bolus of 50% dextrose in water, and 50 to 100 mg of thiamine routinely to reverse rapidly the potential effects of opiates or low blood sugar. Depending on the patient's response to the drug's actions (e.g., CNS depression or stimulation, respiratory depression, cardiac arrhythmias, or renal failure), emergency department personnel provide necessary supportive therapies (e.g., airway intubation and ventilation), activated charcoal, or bowel irrigation. Because absorption rates vary and may fluctuate, the patient requires frequent reassessment with immediate intervention as appropriate.

The possibility of attempted suicide should be considered in any case of drug overdose. A psychiatric history is obtained, with any history of depression noted. Suicide precautions are established to protect the patient from further self-injury. Psychological or psychiatric follow-up is initiated for overdose resulting from depression or suicidal ideation. Drug counseling and rehabilitation may also be needed. SEE: *Nursing Diagnoses Appendix*.

drug product problem reporting program A program managed by the U.S. Pharmacopeial Convention, Inc., that informs the product manufacturer, the labeler, and the Food and Drug Administration (FDA) of potential

health hazards and defective drug products. The reports may be submitted by any health professional.

drug reaction Adverse and undesired reaction to a substance taken for its pharmacological effects. An estimated 15% of hospitalized patients develop toxic or allergic drug reactions. SEE: table.

drug-resistant 1. Unaffected by chemotherapy. 2. Unable to be killed or eradicated with antibiotics, said of certain bacteria. SYN: *pharmacoresistant; drug-fast*.

drug screen A clinical laboratory procedure that checks a patient's blood or urine sample for presence of certain drugs such as barbiturates, opioids, or amphetamines. Also called a *tox screen*.

drug substitution 1. In pharmacy dispensing, the replacement of one drug by another. Typically a generic drug, or a drug available in a restricted formulary, is substituted for a brand-name drug. 2. A treatment for addiction in which a drug with limited potential for abuse is used to replace a more hazardous agent that the addict craves.

drug testing, mandated The enforced testing of individuals for evidence of drug or alcohol use or abuse. Some state or federal regulatory or licensing agencies require random drug testing of employees in specific industries to ensure public safety and to prevent on-the-job injuries. In addition, some health care professionals who have a history of drug or alcohol abuse may be required to participate in such testing as a means of monitoring compliance with abstinence.

drug withdrawal The removal from the market of a therapeutic agent that had been previously approved for use in patient care. Drug withdrawals affect millions of patients annually. They usually result from the aftermarket recognition of adverse drug reactions that were not noted during the drug approval process. Prominent examples of drug withdrawals include: Bextra, Fen/Phen, and Vioxx.

drum The membrane of the tympanic cavity; the tympanum or cavity of the middle ear.

drunkalogue (drŭngk'ŭ-lŏg) [Fm *drunk*

+ (*di*)*logue*] A colloquial term for a personal history of one's addiction to alcohol and its consequences, often recited at a meeting with other alcoholics. The recital is often used for therapeutic purposes, e.g., it defines the speaker as an alcoholic and details the ways in which alcoholism has harmed or continues to harm the person seeking freedom from its effects.

drunkenness [AS. *drinean*, to drink] Alcoholic intoxication. In legal medicine, intoxication or being "under the influence" of alcohol is defined according to the concentration of alcohol in the blood or exhaled air. The precise concentration used to define legal intoxication varies among states. Drivers are considered intoxicated with alcohol (in many states) when the blood level is 0.08% or more. A blood alcohol level over 0.5% is sufficient to cause alcoholic coma in most people.

drusen (droo'zĕn) [Ger. *Druse*, weathered ore] Small, yellowish deposits found between the retinal pigment epithelium and Bruch's membrane.

optic nerve head d. Calcified bodies located on the optic nerve head, which can give the mistaken appearance of optic nerve edema

dry measure A measure of volume for dry commodities. SEE: *Weights and Measures Appendix*.

dry mouth, mouth dryness Decreased production or lack of saliva. This condition may be due to the action of drugs such as diuretics, antihistamines, and anticholinergics; dehydration; anxiety; radiation therapy to the head or neck; or Sjögren's syndrome (an autoimmune disease that affects the salivary glands). SYN: *xerostomia; Zagari disease*. SEE: *Sjögren's syndrome; artificial saliva*.

SYMPTOMS: Mouth dryness interferes with speech, swallowing, denture retention, and maintaining oral hygiene.

TREATMENT: The patient should avoid using the drugs mentioned. Careful attention to oral hygiene is necessary. Frequent sips of sugar-free fluids and use of a saliva substitute may provide some relief. Oral fluid intake ame-

Comparison of Toxic and Allergic Drug Reactions

	Toxic	Allergic
Incidence	May occur with any drug	Occurs infrequently
Dosage	Usually high	Therapeutic
Reaction time	May occur with first dose, or may be due to cumulative effect	Usually only upon re-exposure, but some drugs cross-react with chemicals of similar structure
Symptoms	May be similar to pharmacological action of drug	Not related to pharmacological action of drug
Associated disorders	None	Asthma, hay fever

liorates dry mouth due to dehydration. Pilocarpine may increase saliva production.

dry orgasm The experience of male sexual climax without ejaculation or the emission of semen. Dry orgasm may be experienced by boys before puberty and by adult males with neurological or prostatic diseases.

dry powder inhaler ABBR: DPI. An inhaler that administers tiny particles of medication to the airways. Dry powder inhalers are used to treat diseases such as asthma and chronic obstructive lung disease.

dry weight The body weight of a person after ideal hemodialysis, that is, of a patient in renal failure who has neither edema nor high blood pressure.

DS *double strength.*

DSA *digital subtraction angiography.*

DSM-IV *Diagnostic and Statistical Manual of Mental Disorders (Fourth Edition).*

dsRNA An abbreviation for "double-stranded ribonucleic acid."

DT *delirium tremens.*

D-test (dē'tĕst") Disk diffusion induction test.

dual eligibility In the U.S. health care system, meeting the qualifications that grant a person access to both Medicare and Medicaid insurance.

dualism (dū'ă-lizm) [L. *duo*, two, + Gr. *-ismos*, condition] **1.** The condition of being double or twofold. **2.** The theory that human beings consist of two entities, mind and matter, that are independent of each other. **3.** The theory that various blood cells arise from two types of stem cells: myeloblasts, giving rise to the myeloid elements, and lymphoblasts, giving rise to the lymphoid elements.

dual protection In obstetrics and reproductive health, a method of contraception, e.g., the use of condoms, that also provides some protection against sexually transmitted diseases.

dual reuptake inhibitor (dū'ūl rē-ūp'tāk) An antidepressant medication that works by blocking the reuptake of both serotonin and norepinephrine.

DUB *dysfunctional uterine bleeding.*

Dubini's disease (dū-bĕ'nĕz) [Angelo Dubini, It. physician, 1813–1902] Rapid rhythmic contractions of a group or groups of muscles. SYN: *electric chorea*; *spasmus Dubini*.

Dubin-Johnson syndrome (dū'bĭn-jŏn'sŏn) [Isadore Nathan Dubin, U.S. pathologist, 1913–1980; Frank B. Johnson, U.S. pathologist, b. 1919] An inherited defect of bile metabolism that causes retention of conjugated bilirubin in hepatic cells. The patient is asymptomatic except for mild intermittent jaundice. No treatment is required.

dubnium ABBR: Db. A synthetic radioactive element, atomic number 105.

Dubowitz tool, Dubowitz score (doo'bŏ-wĭts) [Lilly and Victor Dubowitz, contemporary South African physicians] A method of estimating the gestational age of an infant based on 21 strictly defined physical and neurological signs. This method provides the correct gestational age ± 2 weeks in 95% of infants.

Duchenne, Guillaume B. A. (dū-shĕn') French neurologist, 1806–1875.

D.'s disease Degeneration of the posterior roots and column of the spinal cord and of the brainstem. It is marked by attacks of pain; progressive ataxia; loss of reflexes, functional disorders of the bladder, larynx, and gastrointestinal system; and impotence. This disorder develops in conjunction with syphilis and most frequently affects middle-aged men. SYN: *tabes dorsalis*.

D.'s muscular dystrophy Pseudohypertrophic muscular dystrophy marked by weakness and pseudohypertrophy of the affected muscles. It is caused by mutation of the gene responsible for producing the protein dystrophin. The disease begins in childhood, is progressive, and affects the shoulder and pelvic girdle muscles. The disease, mostly of males, is transmitted as a sex-linked recessive trait. SYN: *pseudohypertrophic muscular dystrophy*; *dystrophinopathy*. SEE: *Nursing Diagnoses Appendix*.

D.'s paralysis Bulbar paralysis.

Duchenne-Aran disease (dū-shĕn'ăr-ăn') [Duchenne; Francois Amilcar Aran, Fr. physician, 1817–1861] Spinal muscular atrophy.

Duchenne-Erb paralysis (dū-shĕn'ayrb) [Duchenne; Wilhelm Heinrich Erb, Ger. neurologist, 1840–1921] Paralysis of the muscles of the upper arm due to injury of the fifth and sixth cervical roots, of the brachial plexus. The hand muscles are unaffected. SYN: *Erb's palsy*; *Erb's paralysis*.

duct [L. *ducere*, to lead] **1.** A narrow tubular vessel or channel, esp. one that conveys secretions from a gland. **2.** A narrow enclosed channel containing a fluid (e.g., the semicircular duct of the ear).

accessory pancreatic d. A duct of the pancreas leading into the pancreatic duct or the duodenum near the mouth of the common bile duct. SYN: *duct of Santorini*.

alveolar d. A branch of a respiratory bronchiole that leads directly to the alveolar sacs of the lungs. SEE: *alveolus* for illus.

Bartholin's d. SEE: *Bartholin's ducts*.

biliary d. A canal that carries bile. The intrahepatic ducts include the bile canaliculi and interlobular ducts; the extrahepatic ducts include the hepatic,

cystic, and common bile ducts. Also called *bile duct*.

Botallo's d. SEE: *Botallo's duct*.

cochlear d. Canal of the cochlea.

common bile d. The duct that carries bile and pancreatic juice to the duodenum. It is formed by the union of the cystic duct of the gallbladder and the hepatic duct of the liver and is joined by the main pancreatic duct. SYN: *ductus choledochus*. SEE: *biliary tract* for illus.

cystic d. The secretory duct of the gallbladder. It unites with the hepatic duct from the liver to form the common bile duct. SEE: *biliary tract* for illus.

effluent d. One of a group of 12 to 14 small tubes that constitute the efferent ducts of the testis. They lie within the epididymis and connect the rete testis with the ductus epididymidis. Their coiled portions constitute the lobuli epididymidis.

ejaculatory d. The duct that conveys sperm from the vas deferens and secretions from the seminal vesicle to the urethra.

endolymphatic d. In the embryo, a tubular projection of the otocyst ending in a blind extremity, the endolymphatic sac. In the adult, it connects the endolymphatic sac with the utricle and sacculus of the inner ear.

d. of the epoophoron Gartner's d.

excretory d. Any duct that conveys a waste product from an organ, such as the collecting duct of the renal tubule.

Gartner's d. SEE: *Gartner's duct*.

hepatic d. A duct that receives bile from the right or left lobe of the liver and carries it to the common bile duct. SYN: *ductus hepaticus dexter*; *ductus hepaticus sinister*.

intercalated d. One of several short, narrow ducts that lie between the secretory ducts and the terminal alveoli in the parotid and submandibular glands and in the pancreas.

interlobular d. A duct passing between lobules within a gland (e.g., one of the ducts carrying bile).

lacrimal d. One of two short ducts, inferior and superior, that convey tears from the lacrimal lake to the lacrimal sac. Their openings are on the margins of the upper and lower eyelids. SYN: *lacrimal canal*.

lactiferous d. One of 15 to 20 ducts that drain the lobes of the mammary gland. Each opens in a slight depression in the tip of the nipple. SYN: *milk duct*.

lymphatic d. One of two main ducts conveying lymph to the bloodstream: the left lymphatic (thoracic) and the right lymphatic duct, which drains lymph from the right side of the body above the diaphragm. It discharges into the right subclavian vein. It is smaller than the left lymphatic duct. SEE: *thoracic d.*; *lymphatic system* for illus.

mesonephric d. Wolffian duct.

milk d. Lactiferous d.

müllerian d. One of the bilateral ducts in the embryo that form the uterus, vagina, and fallopian tubes. SYN: *Müller's duct*.

nasolacrimal d. A duct that conveys tears from the lacrimal sac to the nasal cavity. It opens beneath the inferior nasal concha.

omphalomesenteric d. Yolk stalk.

pancreatic d. The duct that conveys pancreatic juice to the common bile duct and duodenum. SYN: *duct of Wirsung*.

papillary d. Any of the large ducts formed by the uniting of the collecting tubules of the kidney; it empties into the renal pelvis.

paramesonephric d. The genital canal in the embryo. In females it develops into the oviducts, uterus, and vagina; in males it degenerates to form the appendix testis.

paraurethral d. Skene's d.

parotid d. Stensen's duct.

prostatic d. One of about 20 ducts that discharge prostatic secretion into the urethra. SYN: *ductus prostaticus*.

d. of Rivinus SEE: *duct of Rivinus*.

salivary d. Any of the ducts that drain a salivary gland.

d. of Santorini Accessory pancreatic duct.

secretory d. Any of the smaller canals of a gland.

semicircular d. One of three membranous tubes forming a part of the vestibular labyrinth of the inner ear. They lie within the semicircular canals and bear corresponding names: anterior, posterior, and lateral. The semicircular ducts originate from the utricle as a single common tube (*crus communale*). The three ducts then branch, and each follows the course of a different bony semicircular canal. At their far ends the ducts widen into an ampulla that contains a specialized endothelium that is sensitive to motion of the endolymph. Axons from receptor cells in these sensory epithelia transmit motion information to the brain via the vestibular division of the vestibulocochlear nerve (CN VIII). SEE: *labyrinth* for illus.

seminal d. Any of the ducts that convey sperm, specifically the ductus deferens and the ejaculatory duct.

Skene's d. SEE: under *duct*.

spermatic d. The secretory duct of the testicle that later joins the duct of the seminal vesicle to become the ejaculatory duct. SYN: *ductus deferens*; *vas deferens*.

Stensen's d. SEE: *Stensen's duct*.

striated d. One of a class of ducts contained within the lobules of glands, esp. salivary glands, that contain radially appearing striations within the cells, denoting the presence of mitochondria.

sublingual d. Any of the secretory ducts of the sublingual gland. SEE: *Bartholin's d.*

tear d. A duct that conveys tears. These include secretory ducts of lacrimal glands, and lacrimal and nasolacrimal ducts.

thoracic d. SEE: *thoracic duct.*

thyroglossal d. A duct that in the embryo connects the thyroid diverticulum with the tongue. It eventually disappears, its point of origin being indicated as a pit, the foramen cecum. It sometimes persists as an anomaly.

utriculosaccular d. A narrow tube emanating from the utricle, connecting it to the sacculle, and opening into the endolymphatic duct of the inner ear.

vitelline d. Yolk stalk.

d. of Wirsung Pancreatic duct.

wolfian d. SEE: *wolfian duct.*

duct-, ducto- Combining forms meaning *to lead, carry, or convey.*

ductal carcinoma in situ of breast SEE: *breast, ductal carcinoma in situ of the.*

duct ectasia An inflammatory condition of the lactiferous ducts of the breast. There is nipple discharge, nipple inversion, and periareolar sepsis. This may occur at any age following menarche. The condition resembles carcinoma of the breast.

ETIOLOGY: The cause is unknown, but in some cases may be associated with hyperprolactinemia due to a pituitary tumor.

TREATMENT: Duct ectasia is treated with surgical drainage of the abscess and antibiotics.

ductile (dŭk'tīl) [L. *ductilis*, fr. *ducere*, to lead] Capable of being elongated without breaking.

duction (dŭk'shŭn) In ophthalmology, the rotation of an eye about an axis. This movement is controlled by the action of the extraocular muscles.

ductogram (dŭk'tŏ-grām) Injection of radiographic contrast into a duct of the breast, to determine the cause of nipple discharge.

duct of Rivinus One of 5 to 15 ducts (the minor sublingual ducts) that drain the posterior portion of the sublingual gland.

duct of Santorini Accessory pancreatic duct.

ductule (dŭk'tŭl) A very small duct.

aberrant d. One of a group of small tubules associated with the epididymis. They end blindly, representing the vestigial remains of the caudal group of mesonephric tubules.

ductus (dŭk'tŭs) *pl.* **ductus** Duct.

d. arteriosus In the fetus, a blood vessel connecting the main pulmonary artery and the aortic arch. In the fetal circulation, it permits most of the blood to bypass the fetal lungs. Normally, the

ductus arteriosus closes soon after birth. SYN: *Botallo's duct.*

d. deferens Vas deferens.

patent d. arteriosus SEE: *patent ductus arteriosus.*

d. venosus The smaller, shorter, and posterior of two branches into which the umbilical vein divides after entering the abdomen of the fetus. It empties into the inferior vena cava.

due care 1. The kind of care that a competent, responsible, and interested provider will give to an individual in need. **2.** Care that meets generally accepted community standards.

due process The standard or customary application of prevailing laws or rules and the protections that follow from their application.

duet reading (doo-ēt' rĕd'ing, dŭ-) Reading aloud simultaneously by two people, one of whom is learning or relearning to read, and the other who is the teacher or role model.

Duffy system (dŭf'ē) [Named after the family in whom the blood group was first discovered.] A blood group consisting of two antigens determined by allelic genes. SEE: *blood group.*

Duke method (dook mĕth'īd, dŭk) SEE: *bleeding time.*

dull [ME. *dul*] **1.** Not resonant on percussion. **2.** Not mentally alert.

dullness 1. The state of being dull. **2.** Lack of normal resonance on percussion.

shifting d. A mobile area of decreased resonance found during percussion of a body part as the body changes position. The finding suggests that fluid is contained within a body cavity and that it moves with gravity.

dumb [AS.] Lacking the power or faculty to speak; mute.

dumbness Muteness.

dumping 1. In medical care, the practice of transferring a patient who is unable to pay for care to a hospital that accepts such patients. **2.** The abandonment of infirm patients in health care facilities.

dumping syndrome A syndrome marked by sweating and weakness after eating, occurring in patients who have had gastric resections. The exact cause is unknown but rapid emptying (dumping) of the stomach contents into the small intestine is associated with the symptoms. This syndrome consists of weakness, nausea, sweating, palpitations, diarrhea, and occasionally, syncope. Eating small meals or lying down after eating may afford some relief.

duoden- SEE: *duodeno-*.

duodenal (dŭ-ŏ-dĕ'nāl, dŭ-ŏd'ĕ-nāl) [L. *duodeni*, twelve] Pert. to the duodenum.

duodenal delay Delay in the movement of food through the duodenum due to conditions such as inflammation of the

lower portion of the intestine, which reflexly inhibits duodenal movements.

duodenectasis (dū"ō-dēn-ĕk'tă-sīs) ["] + Gr. *ektasis*, expansion] Chronic dilatation of the duodenum.

duodenectomy (dū"ō-dēn-ĕk'tō-mē) ["] + Gr. *ektome*, excision] Excision of part or all of the duodenum.

duodenitis (dū"ōd-ē-nī'tīs) ["] + Gr. *itis*, inflammation] Inflammation of the duodenum, usually resulting from *Helicobacter pylori* or the use of alcohol, tobacco, or nonsteroidal anti-inflammatory drugs.

duodeno-, duoden- [L. *duodeni*, twelve] Combining forms meaning *duodenum* (first part of the small intestine).

duodenocholecystostomy (dū"ō-dē'nō-kō-lī-sīs-tōs'tō-mē) ["] + Gr. *chole*, bile, + *kystis*, bladder, + *stoma*, mouth] Surgical formation of a passage between the duodenum and the gallbladder. SYN: *duodenocystostomy*.

duodenocholedochotomy (dū"ō-dē'nō-kō-lēd-ō-kōt'ō-mē) ["] + Gr. *choledochos*, bile duct, + *tome*, incision] Surgical incision of the duodenum to gain access to the common bile duct.

duodenocystostomy (dū"ō-dē'nō-sīs-tōs'tō-mē) Duodenocholecystostomy.

duodenoenterostomy (dū"ō-dē'nō-ēn'tēr-ōs'tō-mē) ["] + Gr. *enteron*, intestine, + *stoma*, mouth] The formation of a passage between the duodenum and the intestine.

duodenogram (dū-ōd'ē-nō-grām) ["] + Gr. *gramma*, something written] A radiograph of the duodenum after it has been filled with a contrast medium.

duodenography (dū"ō-dē-nōg'rā-fē) ["] + Gr. *graphein*, to write] Radiographic examination of the duodenum.

hypotonic d. Radiographic examination of the duodenum after medication has been administered to halt the peristaltic action of the gastrointestinal tract.

duodenohepatic (dū-ōd'ē-nō'hē-păt'īk) ["] + Gr. *hepatos*, liver] Pert. to the duodenum and liver.

duodenoileostomy (dū"ō-dē'nō-īl'ē-ōs'tō-mē) Surgical formation of a passage between the duodenum and the ileum when the jejunum has been surgically excised.

duodenojejunostomy (dū"ō-dē'nō-jē-joo-nōs'tō-mē) ["] + *jejunum*, empty, + Gr. *stoma*, mouth] Surgical creation of a passage between the duodenum and the jejunum.

duodenoorrhaphy (dū"ō-dē-nor'ă-fē) ["] + Gr. *rhaphe*, seam, ridge] Suturing of the duodenum.

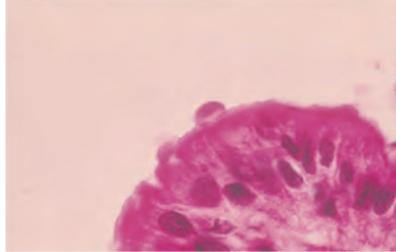
duodenoscopy (dū"ōd-ē-nōs'kō-pē) ["] + Gr. *skopein*, to examine] Inspection of the duodenum with an endoscope.

duodenostomy (dū"ōd-ē-nōs'tō-mē) ["] + Gr. *stoma*, mouth] Surgical creation of a permanent opening into the duo-

denum through the wall of the abdomen.

duodenotomy (dū"ōd-ē-nōt'ō-mē) ["] + Gr. *tome*, incision] An incision into the duodenum.

duodenum (dū"ō-dē'nūm, dū-ōd'ē-nūm) [L. *duodeni*, twelve] The first part of the small intestine, between the pylorus and the jejunum; it is 8 to 11 in (20 to 28 cm) long. The duodenum receives hepatic and pancreatic secretions through the common bile duct. SEE: *illus.*; *liver*; *pancreas*; *digestive system* for *illus.*



DUODENAL MUCOSA (WITH 2 PARASITES ON THE SURFACE)

ANATOMY: The wall of the duodenum contains circular folds (*plicae circulares*) and villi, both of which increase the surface area. The microvilli of the epithelial cells are called the *brush border*, which also increases surface area for absorption. Intestinal glands (of Lieberkühn) between the bases of the villi secrete digestive enzymes, and Brunner's glands in the submucosa secrete mucus. The common bile duct opens at the ampulla of Vater. The nerve supply is both sympathetic (the celiac plexus) and parasympathetic (the vagus nerves). Blood is supplied by branches of the hepatic and superior mesenteric arteries. SEE: *digestive system* for *illus.*

FUNCTION: Acid chyme enters the duodenum from the stomach, as do bile from the liver via the gallbladder and pancreatic juice from the pancreas. Bile salts emulsify fats; bile and pancreatic bicarbonate juice neutralize the acidity of the chyme. Pancreatic enzymes are lipase, which digests emulsified fats to fatty acids and glycerol; amylase, which digests starch to maltose; and trypsin, chymotrypsin, and carboxypeptidase, which continue the protein digestion begun in the stomach by pepsin. Intestinal enzymes are peptidases, which complete protein digestion to amino acids, and sucrase, maltase, and lactase, which digest disaccharides to monosaccharides. Some of these enzymes are in the brush border of the intestinal epithelium and are not secreted into the lumen. Three hormones are secreted by the duodenum when chyme enters. Gastric inhibitory peptide decreases gastric

motility and secretions. Secretin stimulates the pancreas to secrete sodium bicarbonate and the liver to produce bile. Cholecystokinin stimulates secretion of enzymes from the pancreas and contraction of the gallbladder to propel bile into the common bile duct.

The end products of digestion (amino acids, monosaccharides, fatty acids, glycerol, vitamins, minerals, and water) are absorbed into the capillaries or lacteals within the villi. Blood from the small intestine passes through the liver by way of the portal vein before returning to the heart.

duplex Having two components or two functions.

duplication, duplicature [L. *duplicare*, to double] Doubling or folding of a part or an organ; the state of being folded.

duplicitas (dū-plis'ī-tās) A fetal abnormality in which an organ or a part is doubled or apparently doubled.

dupp (dūp) In cardiac auscultation, the expression for the second heart sound heard over the apex. This sound is shorter and of higher pitch than *lubb*, the first heart sound. SEE: *auscultation*; *heart*.

Dupuytren, Baron Guillaume (dū-pwē-trän') French surgeon, 1777–1835.

D.'s contracture Contracture of palmar fascia usually causing the ring and little fingers to bend into the palm so that they cannot be extended. This condition tends to occur in families, after middle age, and more frequently in men. There is no correlation between occupation and development of this condition. It is associated with liver disease and long-term use of phenytoin. SEE: *illus.*



DUPUYTREN'S CONTRACTURE

ETIOLOGY: The cause is unknown.

TREATMENT: The tissue causing the contracture is removed surgically.

D.'s fracture Fracture of the fibula occurring near the tibiofibular synostosis.

dura (dū'rā) [L. *durus*, hard] Dura mater.

durable medical equipment ABBR: DME. Assistive devices used by patients at home, such as walkers, electric beds, and bedside commodes.

dural (dū'rāl) [L. *durus*, hard] Pert. to the dura.

Durand-Nicolas-Favre disease (dū-rān'nik'ō-lās-fāv'r) Lymphogranuloma venereum.

duraplasty (dū'rā-plās'tē) [r + Gr. *plassein*, to form] Plastic repair of the dura mater.

duration 1. The period of time something has been present. 2. In obstetrics, the time between the beginning and the end of one uterine contraction.

durematoma (dū'rēm-ā-tō'mā) [r + Gr. *haima*, blood, + *oma*, tumor] Accumulation of blood between the arachnoid and the dura.

Durham rule (of criminal responsibility) (dūr'im) [From *Durham v. United States* (1954)] A legal standard that limits the culpability of those with psychological or neurological diseases who have committed criminal acts. It states that an unlawful act is not a criminal act if it was committed by someone mentally ill, e.g., psychotic at the time, or was committed by someone with profound neurological disease, e.g., with severe dementia or organic brain injury.

duritis (dū-rī'tis) [r + Gr. *itis*, inflammation] Inflammation of the dura. SYN: *pachymeningitis*.

duroarachnitis (dū'rō-ār'āk-nī'tis) [r + Gr. *arachne*, spider, + *itis*, inflammation] Inflammation of the dura and the arachnoid membrane.

Duroziez' murmur (dū-rō'zē-āz') [Paul Louis Duroziez, Fr. physician, 1826–1897] The systolic and diastolic murmur heard over peripheral arteries in patients with aortic insufficiency. The murmur is audible when pressure is applied to the area just distal to the stethoscope.

dust Minute, fine particles of earth; any powder, esp. something that has settled from the air.

blood d. Hemoconia.

ear d. Fine calcified bodies found in the gelatinous substance of the otolithic membrane of the ear; otoconium or otoliths.

house d. The total of particles present in the air in a house. Materials included are mites, hairs, fibers, pollens, and smoke particles.

dust cell A macrophage in the walls of the alveoli of the lungs that ingests pathogens and particles of air pollution.

dusting powder Any fine powder for dusting on skin.

absorbable d.p. Powder prepared from cornstarch. It is used as a lubricant for surgical gloves.

duty of care The legal and moral obligation to act responsibly and prudently, e.g., to avoid taking actions that one may foresee as being potentially hazardous to others.

duty cycle During chest compressions of

a victim of cardiac arrest, the relative amount of time that the chest is compressed compared to the time that the chest is allowed to recoil to its fully inflated position. A cycle of 50% occurs when chest compression equals chest recoil.

duty to warn **1.** An obligation to advise a patient about potential risks of a treatment or procedure. **2.** The obligation of health care providers to advise people of the potential risks that others may pose to them.

Duverney's fracture (dū-vēr-nāz') [Joseph G. Duverney, Fr. anatomist, 1648–1730] A fracture of the ilium just below the anterosuperior spine.

Duverney's gland Vulvovaginal gland.

déjà vu (dā'zhā voo) [Fr., already seen] The illusion that something seen or some situation being experienced for the first time has been previously seen or experienced.

dwarf [AS. *dwæorg*, dwarf] Any condition in which a person has abnormally short stature. SEE: *achondroplasia*; *cretinism*; *micromelus*.

achondroplastic d. SEE: *achondroplasia*.

asexual d. A dwarf who has deficient sexual development or has not developed to sexual maturity.

hypophyseal d. A dwarf whose condition resulted from hypofunction of the anterior lobe of the hypophysis. SYN: *pituitary dwarf*.

hypopituitary d. A dwarf whose short stature results from insufficient production of growth hormone.

infantile d. A dwarf with marked physical, mental, and sexual underdevelopment.

Laron d. A dwarf whose short stature results from an insensitivity or resistance to growth hormone.

ovarian d. A woman who is undersized due to absence or underdevelopment of the ovaries.

phocomelic d. A dwarf with abnormally short diaphyses of either pair of extremities or of all four.

physiological d. A person normally developed except for unusually short stature.

pituitary d. Hypophyseal d.

primordial d. A dwarf who has a selective deficiency of growth hormone but otherwise normal endocrine function.

rachitic d. A dwarf whose condition is due to rickets.

renal d. A dwarf whose condition is due to renal osteodystrophy.

thanatophoric d. SEE: *thanatophoric dysplasia*.

dwarfism The condition of being abnormally small. It may be hereditary or a result of endocrine dysfunction, nutritional deficiency, renal insufficiency, diseases of the skeleton, or other causes.

Names of specific diseases and bone and connective tissue disorders causing dwarfism are listed under the first word. SEE: e.g., *Bloom's syndrome*; *Cockayne syndrome*; *thanatophoric dysplasia*.

camptomelic d. A condition in which infants have craniofacial anomalies, defects of the ribs, and scapular hypoplasia. The cause is unknown, and death usually occurs in the neonatal period.

dwindles (dwīn'dīlz) [AS *dwīnan*, to waste away] A colloquial term for *failure to thrive*.

Dwyer instrumentation (dwī'ēr) A surgical procedure for stabilization of scoliosis. The spine is approached from the front, and bolts are inserted transversely through each vertebra. A cable attached to the bolts is applied to the convexity of the curve, and the vertebrae are pulled together.

Dy Symbol for the element dysprosium.

dyad (dī'ād) [Gr. *duas*, pair] **1.** A pair. SYN: *couple*. **2.** A pair of chromosomes formed by the division of a tetrad in meiosis. A dyad is a single chromosome that has already replicated for a subsequent division. **3.** In chemistry, a bivalent element or radical. **4.** In psychiatry, two people interacting. SYN: *couple*.

dyadic (dī-ād'īk) Pert. to the social interaction between two people.

dye Any substance that is of itself colored or that is used to impart color to another material, such as a thin slice of tissue prepared for microscopic examination. Dyes may also be employed in manufacturing test reagents used in medical laboratories.

dying **1.** The end of life and the transition to death. **2.** Degenerating (e.g., "dying back").

dynamic (dī-nām'īk) [Gr. *dynamis*, power] Pert. to vital force or inherent power; opposed to static.

dynamics The science of bodies in motion and their forces.

group d. **1.** In politics, sociology, and psychology, the study of the interactions of people who are members of a common class or community. **2.** The interactions of the people who share a common class, status, task, or community.

dynamo- Combining form meaning *power, energy, or strength*.

dynamogenic (dī'nā-mō-jēn'īk) [" + *gennan*, to produce] Pert. to or caused by an increase of energy.

dynamometer (dī'nā-mōm'ē-tēr) [" + *metron*, measure] **1.** A device for measuring muscular strength. **2.** A device for determining the magnifying power of a lens.

dynamometry (dī'nā-mōm'ē-trē) The process of obtaining quantifiable measurements of muscular strength, power, and/or endurance. SEE: *dynamometer*.

dynamoscope (dī-nām'ō-skōp) [" +

- skopein*, to examine] An instrument for auscultation of muscles.
- dynamoscopy** (dī-nām-ōs'kō-pē) 1. Auscultation of muscles. 2. Visual evaluation of the function of an organ or system.
- dyne** (dīn) [Gr. *dynamis*, power] The force needed for imparting an acceleration of 1 cm per second to a 1-g mass.
- dynein** (dī'nēn) A very large protein that has a molecular configuration resembling arms. Contraction of these arms facilitates the movement of cilia and flagella of bacteria. SEE: *immotile cilia syndrome*; *Kartagener's syndrome*.
- dynia** Suffix meaning *pain*. SEE: *-algia*.
- dynorphin** (dī-nōr'fīn) An opiate-like chemical found in the brain, which blocks transmission of pain signals along nerve fibers.
- dys-** [Gr.] Prefix meaning *bad, difficult, painful*.
- dysacusis, dysacusia, dysacusma** (dīs'ā-koo'zē-ā, -koo'sīs, -kooz'mā) [Gr. *dys*, bad, + *akousis*, hearing] 1. Discomfort caused by loud noises. 2. Difficulty in hearing.
- dysantigraphia** (dīs'ān-tī-grāf'ē-ā) [" + *anti*, against, + *graphein*, to write] Inability to copy writing or printed letters.
- dysaphia** (dīs-ā'fē-ā) [" + *haphe*, touch] Dullness of the sense of touch.
- dysaptation, dysadaptation** (dīs'āp-tā'shūn) Impaired ability of the iris of the eye to accommodate to varying intensities of light.
- dysarthria** (dīs-ār'thrē-ā) [" + *arthron*, to utter distinctly] Impairments or clumsiness in the uttering of words due to diseases that affect the oral, lingual, or pharyngeal muscles. The patient's speech may be difficult to understand, but there is no evidence of aphasia.
- dysarthrosis** (dīs'ār-thrō'sīs) [" + *arthrosis*, joint] Joint malformation or deformity.
- dysautonomia** (dīs'aw-tō-nō'mē-ā) [" + *autonomia*, freedom to use one's own laws] A rare hereditary disease involving the autonomic nervous system and characterized by mental retardation, motor incoordination, vomiting, frequent infections, and convulsions. It is seen almost exclusively in Ashkenazi Jews. SEE: *Mecholyl test*.
- dysbarism** (dīs'bār-izm) [" + *barys*, heavy, + *-ismos*, condition] Decompression illness.
- dysbasia** (dīs-bā'zē-ā) [" + *basis*, a step] Difficulty in walking, esp. when due to disease of the brain or spinal cord.
- dysbiosis** (dīs'bī-ō'sīs) [" + Gr. *biosis*, living] An unhealthy change in the normal bacterial ecology of a part of body, e.g., of the intestines or the oral cavity.
- dyscalculia** (dīs'kāl-kū'lē-ā) [" + L. *calcularē*, to compute] An inability to make calculations. It may be found in childhood as a learning disability or may result from a stroke.
- dyscephaly** (dīs-sēf'ā-lē) Malformation of the head and facial bones.
- dyschezia** (dīs-kē'zē-ā) [" + *chezein*, to defecate] Painful or difficult bowel movements.
- dyschiria** (dīs-kī'rē-ā) [" + *cheir*, hand] Inability to tell which side of the body has been touched. If the sensation is referred to the wrong side, it is called *allochiria*, or *allesthesia*. If referred to both sides, it is called *synchiria*. SYN: *acheiria*.
- dyschondroplasia** (dīs'kōn-drō-plā'zē-ā) Chondrodysplasia.
- dyschromatopsia** (dīs'krō-mā-tōp'sē-ā) [" + *chroma*, color, + *opsis*, vision] Imperfect color vision.
- dyschromia** (dīs'krō'mē-ā) Discoloration, as of the skin.
- naïl d.** Discoloration of fingernails and toenails. Pigmented bands in the nails may be related to Addison's disease, Peutz-Jeghers syndrome, pregnancy, use of minocycline, radiotherapy, cytotoxic drugs, antimalarials, and zidovudine therapy in AIDS patients.
- dyschronism** (dīs-krō'nīzm) [" + *chronos*, time] A disturbed sense of time esp. that occurring after transportation from one time zone to another that is 5 to 10 hr ahead or behind. This leads to disturbances of sleep/wake cycles. SYN: *jet lag*.
- dyscompetence** Poor professional performance in a limited number of crucial or expected skills.
- dyscontrol syndrome** (dīs'kōn-trōl') [" + "] A condition marked by sudden outbursts of violence or rage, associated with abnormal electrical discharges in the amygdaloid nuclear complex of the brain.
- dyscoria** (dīs-kō'rē-ā) [" + *kore*, pupil] Abnormal form or shape of the pupil.
- dyscrasia** (dīs-krā'zē-ā) [Gr. *dyskrasia*, bad temperament] An old term meaning abnormal mixture of the four humors. The word is now used as a synonym for disease, esp. hematologic disease.
- dysdiadochokinesia** (dīs'dī-ād'ō-kō-kī-nē'sē-ā) [" + *diadochos*, succeeding, + *kinesis*, movement] An impairment in making smooth and rapid, alternating movements (e.g., turning the palms of the hands rapidly up and down on one's lap). This is one of the impairments brought on by malfunctioning of the cerebellum.
- dysideisia** (dīs'ī-dē'zē-ū) [" + Gr. *eidōs*, form, shape + "] Difficulty in reading caused by an inability to recognize printed words.
- dysembryoplasia** (dīs-ēm'brē-ō-plā'sē-ā) [" + *embryon*, embryo, + *plassein*, to

form] Fetal malformation occurring during growth of the embryo.

dysenteric (dīs'ēn-tēr'ik) Pert. to dysentery.

dysentery (dīs'ēn-tēr'ē) [*"* + *enteron*, intestine] Diarrhea containing blood and mucus, resulting from inflammation of the walls of the gastrointestinal tract, esp. the colon. Abdominal pain, rectal urgency, and sometimes fever are present. Dysentery is caused by bacterial, viral, protozoan, or parasitic infections and is most common in places with inadequate sanitation, where food and water become contaminated with pathogens. SEE: *diarrhea*; *Escherichia coli*; *Shigella*.

TREATMENT: Prevention of infection is the major emphasis of health care providers, by improving the handling of waste products in the community and teaching proper techniques for handling, cooking, and storing food. Patients, particularly infants, may become severely dehydrated, develop metabolic acidosis, and require rehydration and, on occasion, antibiotic therapy.

PATIENT CARE: The basic principles of food handling should be taught to all those in the home: the need to wash hands frequently, particularly after using the toilet; using a meat thermometer to check that meat and dishes containing eggs are adequately cooked; refrigerating foods (below 40°F) until just before cooking and within 1 hr after cooking (esp. in warm weather); and separating raw and cooked food and not using the same utensils or dishes for raw and cooked foods.

amebic d. Amebiasis.

bacillary d. Diarrheal illness caused by bacterial infections of the colon, esp. strains of *Shigella*, *Salmonella*, *Campylobacter*, and *Escherichia coli*. It can be relatively mild or severe, endemic or epidemic in presentation. Virulent strains (e.g., *Shigella dysenteriae* and 0157:H7 *E. coli*) release exotoxins that can cause systemic infection and damage to the glomeruli of the kidney (hemolytic-uremic syndrome). SEE: *Campylobacter jejuni*; *Escherichia coli*; *hemolytic uremic syndrome*; *Salmonella*; *Shigella*.

balantidial d. Balantidiasis.

malignant d. A form of dysentery in which symptoms are very pronounced and dehydration occurs rapidly, usually terminating fatally.

viral d. Dysentery caused by a virus, esp. rotaviruses, Norwalk-like viruses, coronaviruses, and enteric adenoviruses.

dysesthesia (dīs'ēs-thē'zē-ā) [*"* + *esthesia*, sensation] An abnormal and unpleasant sensation, such as a sense of burning, cutting, numbness, pricking,

stinging, or tingling of the skin. SEE: *paresthesia*.

auditory d. Abnormal discomfort from loud noises. SYN: *dysacusis*.

d. pedis Severe itching and burning of the plantar surface of the feet and toes. This may occur as a result of athlete's foot or as a reaction to heparin therapy.

vulvar d. Generalized constant, severe burning vulvar pain of unknown origin. SYN: *idiopathic vulvodynia*. SEE: *vulvodynia*.

dysferlin (dīs-fēr'līn) A skeletal muscle cell membrane protein. Deficiency or absence of this protein results in several forms of muscular dystrophy.

dysferlinopathy (dīs-fēr'līn-ōp'ā-thē) [*"* + *"*] Any form of muscular dystrophy caused by deficient expression of dysferlin. Dysferlinopathies tend to weaken proximal and distal muscles.

dysfibrinogenemia (dīs'fi-brīn'ō-gē-nē'mē-ā) [Gr. *dys*, bad, + L. *fibra*, fiber, + Gr. *gennan*, to produce, + Gr. *haima*, blood] Any anomaly in the molecular architecture of fibrinogen. It may cause abnormal bleeding, abnormal blood clotting, or both.

dysfluency (dīs-flū'ēn-sē) Hesitant or halting verbal or written language use. Examples of dysfluencies are cluttering and stuttering. This lack of linguistic fluency may be normal during the early phases of language acquisition (e.g., in childhood).

dysfunction (dīs-fūnk'shūn) [*"* + L. *functio*, a performance] Abnormal, inadequate, or impaired action of an organ or part.

erectile d. ABBR: ED. The inability to achieve or sustain a penile erection for sexual intercourse. It is a common disorder that affects millions of men worldwide. Although about half of all men between ages 40 and 70 experience some degree of ED, it is not an inevitable part of aging. The many causes of erectile dysfunction include tension or anxiety, vascular diseases of the pelvis, spinal cord injuries, autonomic nervous system disorders, testosterone deficiencies, pelvic injuries resulting from surgery, pelvic radiation, stroke, and side effects from intoxicants (such as alcohol) or medications (such as some antihypertensives, sedatives, opiates, and antidepressants). SYN: *impotence*. SEE: table.

PATIENT CARE: Lack of information and emotional barriers such as embarrassment, fear, and anxiety can worsen ED. Because some patients with ED may be reluctant to discuss it, primary practitioners should make questions about sexual function a routine part of history-taking. Physical examination should include examination of the abdomen and genitalia, assessment for

Risk Factors for Erectile Dysfunction

Age > 60
 Depression (or treatment with antidepressant medications)
 Diabetes mellitus
 Heart disease
 Hypertension (or treatment with some antihypertensive medications)
 Obesity or increased body mass index
 Prostate cancer or its treatment
 Sedentary lifestyle
 Stroke
 Tobacco use

secondary sex characteristics, assessment of peripheral pulses and blood pressure, and digital rectal exam to evaluate prostate size. Laboratory testing to rule out underlying causes should include serum chemistries, fasting glucose and lipid levels, thyroid function tests, and testosterone levels. In some patients, ultrasound or arteriography may be helpful. Healthy males have involuntary erections during sleep. The presence of these erections helps to focus care away from an emphasis on purely physical causes. Psychological assessment may be indicated to rule out depression or other mental conditions.

Commonly prescribed drugs to treat ED may have serious side effects and drug interactions. Drugs like sildenafil (Viagra) or tadalafil should never be given to patients who use nitrates to control angina pectoris. The combination can cause severe and even fatal hypotension. Colorful visual disturbances while taking erectile aids may precipitate loss of vision. Other common side effects of these ED medications include headache, upset stomach, and priapism (an erection that does not go away after several hours).

Nonmedical treatments for ED include vacuum constriction devices (a plastic tube placed around the penis). Such devices are available without prescription. Pumping the air out of the tube creates a vacuum that draws blood into the penis, producing an erection, which then is maintained by placing one or more tension bands around the base of the penis for up to 30 minutes. These are infrequently well tolerated.

Surgical therapies include the implantation of devices in the penis which can be manipulated to create an erection. All patients being treated for ED should be taught that sexual problems can be reduced by avoiding recreational drugs and excessive alcohol, getting treatment for hypertension (and medication dosage adjustment as related to ED), and for patients with diabetes,

maintaining glucose control. Exercising regularly, avoiding tobacco, maintaining low cholesterol levels and ideal body weight, and good communications between sexual partners can help men to manage ED.

hypotonic uterine d. The slowing or complete arrest of the progress of labor, caused by weak or infrequent contractions of the uterus. Also known as secondary uterine inertia.

dysgammaglobulinemia (dīs'gām'ā-glōb'ū-lī-nē'mē-ā) Disproportion in the concentration of immunoglobulins in the blood. It may be congenital or acquired.

dysgenesis (dīs-jěn'ĕ-sīs) [" + *genesis*, generation, birth] Defective or abnormal development, particularly in the embryo.

gonadal d. A congenital endocrine disorder caused by failure of the ovaries to respond to pituitary hormone (gonadotropin) stimulation. Clinically there is amenorrhea, failure of sexual maturation, and usually short stature. About one third of these patients have webbing of the neck and may have cubitus valgus. Intelligence may be impaired. SYN: *Turner's syndrome*.

ETIOLOGY: The cause is a defect in or absence of the second sex chromosome.

dysgenic (dīs-jěn'ĭk) [" + *gennan*, to produce] Pert. to dysgenesis.

dysgenitalism (dīs-jěn'ĭ-tāl-izm) [" + *L. genitalia*, organs of reproduction, + *Gr. -ismos*, condition] A condition caused by abnormal genital development.

dysgerminoma (dīs'jēr-mĭn-ō'mā) [" + *L. germen*, a sprout, + *Gr. oma*, tumor] A malignant neoplasm of the ovary.

dysgeusia (dīs-gū'zē-ā) [" + *geusis*, taste] Impairment or perversion of the gustatory sense so that normal tastes are interpreted as being unpleasant or completely different from the characteristic taste of a particular food or chemical compound. SEE: *cacogeusia*; *heterogeusia*; *hypogeusia*, *idiopathic*; *phantogeusia*.

dysglobulinemia (dīs-glōb'ū-līn-ē'mē-ā) [" + *L. globulus*, globule, + *Gr. haima*, blood] Abnormality of the amount or quality of blood globulins.

dysgnathia (dīs-nā'thē-ā) [" + *gnathos*, jaw] Abnormality of the mandible and maxilla.

dysgonesis (dīs'gō-nē'sīs) [*Gr. dys*, bad, + *gone*, seed] 1. A functional disorder of the genital organs. 2. Poor growth of bacterial culture.

dysgonic (dīs-gōn'ĭk) Pert. to a bacterial culture of sparse growth.

dysgraphia (dīs-grāf'ē-ā) [" + *graphēin*, to write] 1. A persistent deficit in handwriting, usually the result of de-

velopmental diseases (in children) and of brain injury, dementia, or stroke (in adults). **2.** An infrequently used term for "writer's cramp."

dyshemoglobin (dis'hēm'ō-glō'bīn) ABBR: dysHb. A hemoglobin derivative that is incapable of reversibly associating with oxygen, and so is unable to carry oxygen from the lungs to the cells. The primary defect in dyshemoglobins is a chemical (or stereochemical) alteration of the heme prosthetic group. Two common dyshemoglobins are carboxyhemoglobin (COHb) in which carbon monoxide is covalently bonded to the hemoglobin molecule, and methemoglobin (metHb) in which the ferrous iron is oxidized to the ferric form. Other, indeterminate dyshemoglobins exist in minute amounts in circulating blood.

dyshidrosis, dyshidria, dysidrosis (dis-hī-drō'sīs) [" + " + *osis*, condition] **1.** A disorder of the sweating apparatus. **2.** A recurrent vesicular eruption on the skin of the hands and feet marked by intense itching. SEE: *pompholyx*.

TREATMENT: The control of sweating or proper absorption of perspiration is beneficial. For the feet, wearing absorbent socks and well-ventilated shoes and applying substances that reduce sweating help to control symptoms. Individuals who do not wear shoes are rarely found to have this disorder. Acute attacks respond to treatment with a corticosteroid in an ointment combined with an ointment. This is applied at night with an occlusive dressing.

dyskaryosis (dis-kār'ē-ō'sīs) Abnormality of the nucleus of a cell.

dyskeratosis (dis'kēr-ā-tō'sīs) [" + *keras*, horn, + *osis*, condition] **1.** Epithelial alterations in which certain isolated malpighian cells become differentiated. **2.** Any alteration in the keratinization of the epithelial cells of the epidermis. This is characteristic of many skin disorders.

dyskeratosis congenita A rare X-linked or autosomal dominant disease characterized by dystrophic formation of the nails, oral leukoplakia, and hyperpigmentation of the skin. Affected patients may also suffer bone marrow failure, resulting in aplastic anemia or pulmonary fibrosis.

dyskinesia (dis'kī-nē-sē-ā) [" + *kinesis*, movement] **1.** A defect in the ability to perform voluntary movement. **2.** Any disorder characterized by uncontrolled or involuntary movements.

biliary d. Symptoms of recurrent biliary colic in patients without gallstones, who nonetheless have an abnormal gallbladder ejection fraction on cholecystokinin-stimulated studies of the gallbladder.

d. intermittens Periodic or intermit-

tent inability to execute voluntary limb movements.

primary ciliary d. An autosomal-recessive syndrome in which faulty ciliary motion in the airways produces chronic lung infections and bronchiectasis.

tardive d. A neurological syndrome marked by slow, rhythmical, stereotyped movements, either generalized or in single muscle groups. These occur as an undesired effect of therapy with certain psychotropic drugs, esp. the phenothiazines. SYN: *tardive dystonia*.

uterine d. Pain in the uterus on movement.

dyskinetic (dis'kī-nēt'ik) Concerning dyskinesia.

dyslalia (dis-lā'lē-ā) [" + *lalein*, to talk] Impairment of speech due to a defect of the speech organs.

dyslexia (dis-lēk'sē-ā) [" + *lexis*, diction] Difficulty using and interpreting written forms of communication by an individual whose vision and general intelligence are otherwise unimpaired. The condition is usually noticed in schoolchildren by the third grade. They can see and recognize letters but have difficulty spelling and writing words. They have no difficulty recognizing the meaning of objects and pictures and typically have no other learning disorders. SEE: *learning disorder*.

ETIOLOGY: Although the exact cause is unknown, evidence suggests that dyslexia may be caused by an inability to break words into sounds and assemble word sounds from written language.

dyslogia (dis-lō'jē-ā) [" + *logos*, word, reason] Difficulty in expressing ideas.

dysmaturity (dis'mā-tūr'i-tē) A condition in which newborns weigh less than established normal parameters for the estimated gestational age. SEE: *intrauterine growth restriction*.

dysmegalopsia (dis'mēg-ā-lōp'sē-ā) [" + *megas*, big, + *opsis*, vision] Inability to visualize correctly the size of objects; they appear larger than they really are.

dysmelia (dis-mē'lē-ā) [" + *melos*, limb] Congenital deformity or absence of a portion of one or more limbs.

dysmenorrhea (dis'mēn-ō-rē-ā) [" + *men*, month, + *rhein*, to flow] Pain in association with menstruation. One of the most frequent gynecological disorders, it is classified as primary or secondary. An estimated 50% of menstruating women experience this disorder, and about 10% of these are incapacitated for several days during each menstrual period. This disorder is the greatest single cause of absence from school and work among menstrual-age women. In the U.S., this illness causes the loss of an estimated 140 million work hours each year. SEE: *premenstrual tension*

syndrome; *Nursing Diagnoses Appendix*.

ETIOLOGY: Primary dysmenorrhea has multiple possible causes, including hormonal imbalances, psychogenic factors, and increased prostaglandin secretion in menstrual flow, which intensifies uterine contractions, resulting in increased uterine hypoxia and pain. Above age 20, dysmenorrhea usually has a secondary cause. Secondary dysmenorrhea may be related to gynecologic disorders such as endometriosis, cervical stenosis, uterine leiomyomas (fibroids), uterine malposition, pelvic inflammatory disease, pelvic tumors, or adenomyosis. Dysmenorrhea may be associated with premenstrual syndrome symptoms such as frequent urination, nausea, vomiting, diarrhea, headache, backache, abdominal bloating, painful breasts, chills, irritability, and depression. Prostaglandins and their metabolites also can cause headache, syncope, and GI disturbances.

PATIENT CARE: Young women experiencing discomfort or pain during menstruation are encouraged to seek medical evaluation to attempt to determine the cause. Dysmenorrheal pain usually begins just before or at the start of menstrual flow and peaks within 24 hr. Pain is described as sharp, intermittent, cramping, radiating to the lower back, thighs, groin, or vulva. Relieving the pain should be the initial concern. Patients are taught to evaluate pain severity using a 1 to 10 scale. Pharmacological therapies include analgesics (aspirin, NSAIDs) for mild to moderate pain. These are most effective if taken 24 to 48 hr before the onset of menses, and are effective because they are anti-inflammatory and inhibit prostaglandin synthesis (by inhibiting the enzyme cyclooxygenase), decreasing the strength and severity of uterine contractions. Opioids or acetaminophen/opioid combinations may be prescribed for severe pain, to be used infrequently (when pain is at its worst). In primary dysmenorrhea, hormonal contraceptives relieve symptoms by suppressing ovulation (dysmenorrhea is associated with ovulatory cycles). Patients who would like to become pregnant should use anti-prostaglandins rather than hormonal therapies for their dysmenorrhea.

Support and assistance are offered to help the patient to deal with the problem. Appropriate patient teaching should be provided, including explanations of normal female anatomy and physiology and the pathophysiology of dysmenorrhea. This is esp. important for adolescents and should include determining the patient's understanding of conception and pregnancy, and pro-

vision of information on contraception as appropriate. Application of mild heat to the abdomen may be helpful, but care must be taken in young adolescents because appendicitis may mimic dysmenorrhea. A well-balanced diet and moderate exercise are encouraged. Noninvasive pain relief measures (e.g., relaxation, distraction, and guided imagery) are employed, and the patient may be referred for biofeedback training to control pain and to support and self-help groups. Treatment in secondary dysmenorrhea focuses on identifying and, if possible, correcting the underlying cause. Conservative therapies are tried initially, but in some cases surgical treatment may be required.

inflammatory d. A condition caused by pelvic inflammation.

membranous d. A severe spasmodic dysmenorrhea that is accompanied by the passage of a cast or partial cast of the endometrial membrane.

primary d. Painful menses.

SYMPTOMS: The pain usually begins just before or at menarche. The pain is spasmodic and located in the lower abdomen, but it may also radiate to the back and thighs. Some individuals also experience nausea, vomiting, diarrhea, low back pain, headache, dizziness, and in severe cases, syncope and collapse. These symptoms may last from a few hours to several days but seldom persist for more than 3 days. They tend to decrease or disappear after the individual has experienced childbirth the first time, and to decrease with age. Primary dysmenorrhea is much more common than secondary dysmenorrhea.

ETIOLOGY: The exact cause is unknown, but uterine ischemia due to increased production of prostaglandins with increased contractility of the muscles of the uterus (i.e., the myometrium) is thought to be the principal mechanism. As in any disease or symptom, the individual's reaction to and tolerance of pain influences the extent of the disability experienced. Primary dysmenorrhea is not a behavioral or psychological disorder.

One study revealed that prevalence and severity of dysmenorrhea might have been reduced in those who used oral contraceptives and that severity was increased in those who had long duration of menstrual flow, who smoked, and who had had early menarche. Exercise did not influence the prevalence or severity of dysmenorrhea.

DIAGNOSIS: Cramping, labor-like pains that start just before or at onset of menstruation are characteristic of dysmenorrhea.

TREATMENT: Effective drugs are oral contraceptives and nonsteroidal anti-inflammatory drugs including as-

pirin. These medicines should be taken in the appropriate dose 3 to 4 times a day and with milk to lessen the chance of gastric irritation.

secondary d. Painful menses that manifest some years after menarche. The diagnosis is strongly suggested by a history or finding of use of an intra-uterine device, pelvic inflammatory disease, endometriosis, uterine leiomyomas, adenomyosis, fertility problems related to imperforate hymen, cervical stenosis, ovarian cysts, or pronounced uterine retroflexion and/or retroversion.

TREATMENT: Nonsteroidal anti-inflammatory drugs are recommended for pain management. Medical or surgical management is directed toward resolving the underlying problem.

dysmetabolic syndrome Syndrome X.

dysmetria (dis-mē'trē-ā) [Gr. *dys*, bad, + *metron*, measure] An inability to control the range of movement (e.g., on trying to touch an object with an index finger).

dysmetropsia (dis'mē-trōp'sē-ā) [" + " + *opsis*, vision] Inability to visualize correctly the size and shape of things.

dysmimia (dis-mīm'ē-ā) [" + *mimos*, imitation] 1. Inability to express oneself by gestures or signs. 2. Inability to imitate.

dysmnnesia (dis-nē'zē-ā) [" + *mneme*, memory] Any impairment of memory.

dysmorphic (dis-mor'fik) Misshapen.

dysmorphophobia (dis'mor-fō-fō'bē-ā) [" + *morphe*, formed, + *phobos*, fear] Irrational fear of being deformed or the illusion that one is deformed.

dysmotility (dis'mō-tī'l'ī-tī) Any abnormality of smooth muscle function in the gastrointestinal tract, such as gastroparesis, gastric atony, intestinal pseudo-obstruction, or biliary dyskinesia.

dysmyotonia (dis'mī-ō-tō'nē-ā) [" + *mys*, muscle, + *tonos*, tone] Muscle atony; abnormal muscle tonicity.

dysnomia (dis-nō'mē-ā) An aphasia in which the patient forgets words or has difficulty finding words for written or oral expression.

dysodontiasis (dis'ō-dōn-tī'ā-sīs) [" + *odous*, tooth, + *-iasis*, process] Painful or difficult dentition.

dysontogenesis (dis'ōn-tō-jen'ē-sīs) [" + *ontos*, being, + *gennan*, to produce] Defective development of an organism, esp. of an embryo. **dysontogenetic** (dis'ōn-tō-jē-nēt'ik), *adj.*

dysopia, dysopsia (dis-ō'pē-ā, -ōp'sē-ā) [" + *opsis*, vision] Defective vision.

dysosmia (dis-ōz'mē-ā) [" + *osme*, smell] Distortion of normal smell perception.

dysostosis (dis'ōs-tō'sīs) [" + *osteon*, bone, + *osis*, condition] Defective ossification.

cleidocranial d. A congenital anom-

aly of bone and connective tissue characterized by cranial and facial malformation and incomplete development of the clavicles.

craniocerebral d. A hereditary disease marked by ocular hypertelorism, exophthalmos, strabismus, widening of the skull, high forehead, beaked nose, and hypoplasia of the maxilla.

mandibulofacial d. A condition marked by hypoplasia of the facial bones, downward sloping of the palpebral tissues, and malformation of the ears. It occurs in two forms thought to be autosomal dominants.

maxillofacial d. Hypoplasia of the maxillae and nasal bones resulting in a flattened face, elongated nose, and small maxillary arch with crowding or malocclusion of teeth. SYN: *Binder's syndrome*; *maxillofacial syndrome*. SEE: *Ellis-van Creveld syndrome*; *Weyers acrofacial dysostosis*.

dyspareunia (dis'pā-rū'nē-ā) [" + *pareunos*, lying beside] Pain in the labia, vagina, or pelvis during or after sexual intercourse.

ETIOLOGY: Causes are infections in the reproductive tract, inadequate vaginal lubrication, uterine myomata, endometriosis, atrophy of the vaginal mucosa, psychosomatic disorders, and vaginal foreign bodies.

TREATMENT: Specific therapy is for primary disease; counseling is given with respect to appropriate water soluble vaginal and vulvar lubrication. Petroleum jelly is of no benefit.

dyspepsia (dis-pēp'sē-ā) [" + *peptein*, to digest] Upper abdominal discomfort, often chronic or persistent, colloquially referred to as "indigestion." It is sometimes related to the ingestion of food and may be a side effect of many medications. It may include such symptoms as fullness, eructation, bloating, nausea, loss of appetite, or upper abdominal pain. SYN: *indigestion*.

acid d. Dyspepsia due to excessive acidity of the stomach or reflux of acid into the esophagus.

alcoholic d. Dyspepsia caused by excessive use of alcoholic beverages.

biliary d. A form of dyspepsia in which there is insufficient quantity or quality of bile secretion.

cardiac d. Cardiac ischemia that presents with nausea, bloating, indigestion, or other upper abdominal symptoms.

gastric d. Dyspepsia caused by faulty stomach function (e.g., delayed gastric emptying in patients with diabetes mellitus).

gastrointestinal d. Dyspepsia caused by faulty function of the stomach and intestines.

hepatic d. Dyspepsia caused by liver disease.

hysterical d. An obsolete term for functional digestive diseases.

nonulcer d. Upper abdominal discomfort, often chronic, in which endoscopy reveals nondiagnostic, or normal, findings. The role of the bacterium *Helicobacter pylori* in this syndrome is controversial.

dyspeptic (dis'pēp'tik) 1. Affected with or pert. to dyspepsia. 2. One afflicted with dyspepsia.

dyspermasia (dis'pēr-mā'zē-ā) [" + *sperma*, seed] Dyspermia.

dyspermia (di-spērm'ē-ā) Difficult or painful emission of sperm during coitus.

dysphagia (dis-fā'jē-ā) [" + *phagein*, to eat] Inability to swallow or difficulty in swallowing. SEE: *achalasia*; *cardiospasm*.

PATIENT CARE: Nurses are often in the room with patients while they are eating and are therefore the health care professionals most likely to identify swallowing disorders in adults and children. When a swallowing problem is suspected, consultation with a speech therapist or trained nurse will often identify the need for further testing. Screening examinations include assessing patients for an intact gag reflex, testing how they respond to swallowing water, or modifying their diet to specified consistencies and thicknesses. Patients who appear to be aspirating should be kept from eating (made "NPO") until they complete a modified barium swallow or other more formal testing. Instructing patients in tucking the chin while swallowing or turning the head to the side may be helpful for many patients with dysphagia after stroke. Other causes of dysphagia have other disease-specific remedies.

d. constricta Dysphagia due to narrowing of the pharynx or esophagus.

d. lusoria Dysphagia caused by pressure exerted on the esophagus by an anomaly of the right subclavian artery.

oral phase d. An inability to coordinate chewing and swallowing a bolus of food placed in the mouth.

oropharyngeal d. Difficulty in propelling food or liquid from the oral cavity into the esophagus.

d. paralytica Dysphagia due to paralysis of the muscles of deglutition and of the esophagus.

pharyngeal d. Aspiration of food into the trachea during the act of swallowing.

d. spastica Dysphagia resulting from a spasm of the pharyngeal or esophageal muscles.

dysphasia (dis-fā'zē-ā) [" + *phasis*, speech] Impairment of speech resulting from a brain lesion or neurodevelopmental disorder. The speech impairment in dysphasia is less marked than

the severe or global language loss found in aphasia. SYN: *dysphrasia*.

dysphonesia (dis'fō-nē'zē-ū) Difficulty in reading caused by an inability to sound out printed words.

dysphonia (dis-fō'nē-ā) [" + *phone*, voice] Difficulty in speaking; hoarseness.

d. clericorum Hoarseness due to public speaking; vocal overuse.

d. puberum Change or breaking in the voice in boys during puberty.

spasmodic d. A strained, strangled, or abnormally breathy voice in a patient with normal laryngeal anatomy. Flexible laryngoscopy reveals laryngeal tremor or spasm during respiration or vocalization. Adductor or abductor muscle spasms may cause the dysfunction. Adductor spasms respond to the injection of botulinum toxin into the thyroarytenoid muscles. Usually, the response lasts several months but provides only partial symptomatic relief.

dysphoria (dis-fō'rē-ā) [" + *pherein*, to bear] A long-lasting mood disorder marked by depression and unrest without apparent cause; a mood of general dissatisfaction, restlessness, anxiety, discomfort, and unhappiness.

dysphrasia (dis-frā'zē-ā) [Gr. *dys*, bad, + *phrasis*, speech] Dysphasia.

dyspigmentation (dis'pig-mēn-tā'shūn) Abnormality of the skin or hair pigment.

dysplasia (dis-plā'zē-ā) [" + *plassein*, to form] Abnormal development of tissue. SYN: *alloplesia*; *heteroplasia*.

anhidrotic d. A congenital condition marked by absent or deficient sweat glands, intolerance of heat, and abnormal development of teeth and nails.

bronchopulmonary d. An iatrogenic chronic lung disease that develops in premature infants after a period of positive pressure ventilation.

cervical d. Precancerous changes in the cells of the uterine cervix, typically obtained for cytological examination by brushing or scraping cells from the cervix during a Pap test or colposcopy.

chondroectodermal d. Ellis-van Creveld syndrome.

ectodermal d. A group of rare inherited disorders in which there are defects in the function or development of glands, hair, nails, or teeth, i.e., organs that originate embryologically in the ectoderm.

fibromuscular d. Abnormal development of the fibrous and muscular walls of an artery, resulting in impaired blood flow or stenosis. It is most often found in the renal arteries (esp. in young women as a cause of hypertension) or in the carotid arteries of adults.

fibrous d. A rare, nonhereditary, congenital bone disease characterized by disorganized alignment of collagen

within bone and weak bone formation. Symptoms include bone pain, bone deformities, fractures, and neurological deficits. Some patients are also affected by endocrine disorders, such as diabetes mellitus, acromegaly, or hyperprolactinemia. There are two forms of the disease: monostotic fibrous dysplasia is a variant of the disease in which a single bony lesion is found; in polyostotic fibrous dysplasia, lesions are found in multiple bones, including long bones, facial and cranial bones, or other locations.

hereditary ectodermal d. A form of anhidrotic dysplasia marked by few or absent sweat glands and hair follicles, smooth shiny skin, abnormal or absent teeth, nail deformities, cataracts or corneal alterations, absence of mammary glands, a concave face, prominent eyebrows, conjunctivitis, deficient hair growth, and mental retardation.

monostotic fibrous d. Fibrous dysplasia that affects a single bone.

osteofibrous d. An extremely rare, benign bone tumor occurring in children under 10 years old. The primary symptoms are painless swelling or bowing of bone. It usually develops in the tibia or fibula.

polyostotic fibrous d. Fibrous dysplasia affecting multiple bones, including in some children, long bones as well as facial or cranial bones. McCune-Albright syndrome is a disease in which polyostotic fibrous dysplasia is found in association with precocious puberty and diseases of skin pigmentation.

dysplasminogen (dis'plāz-min'ā-jĕn) [" + "] Any of several varieties of abnormal plasminogen. Their presence in the bloodstream causes excessive blood clotting.

dyspnea (dĭsp-nĕ'ā, dĭsp'nĕ-ă) [" + *pnoē*, breathing] Air hunger resulting in labored or difficult breathing, sometimes accompanied by pain. It is normal when due to vigorous work or athletic activity, but should quickly return to normal when the activity ceases. SYN: *air hunger*; *breathlessness*. **dyspneic** (-nĕ-ĭc), *adj.*

SYMPTOMS: The patient reports that his or her work of breathing is excessive. Signs of dyspnea may include audibly labored breathing, hyperpnea and/or tachypnea, retraction of intercostal spaces, a distressed facial expression, dilated nostrils, paradoxical movements of the chest and abdomen, gasping, and occasionally cyanosis.

PATIENT CARE: The patient is assessed for airway patency, and a complete respiratory assessment is performed to identify additional signs and symptoms of respiratory distress and alleviating and aggravating factors. Arterial blood gas values are obtained if

indicated, and oxygen saturation is monitored. The patient is placed in a high Fowler, orthopneic, or other comfortable position. Oxygen and medications are administered as prescribed, and the patient's response is evaluated and documented. The nurse or respiratory therapist remains with the patient until breathing becomes less labored and anxiety has decreased. Blood work, pulmonary function studies, chest X-ray, ECG, CT-pulmonary angiography, or other studies may be used as part of the diagnostic workup, depending on findings of the history and physical examination.

cardiac d. Difficult breathing that results from inadequate cardiac output (i.e., from heart failure).

expiratory d. Difficult breathing associated with obstructive lung diseases such as asthma or chronic bronchitis. Wheezing is often present.

inspiratory d. Difficult breathing due to interference with the passage of air to the lungs. SEE: *stridor*.

paroxysmal-nocturnal d. ABBR: PND. Sudden attacks of shortness of breath that usually occur when patients are asleep in bed. The affected patient awakens gasping for air and tries to sit up (often near a window) to relieve the symptom. PND is one of the classic symptoms of left ventricular failure, although it may also occasionally be caused by sleep apnea or by nocturnal cardiac ischemia.

dyspraxia (dĭs-prāk'sĕ-ă) [" + *prasein*, achieve] A disturbance in the programming, control, and execution of volitional movements. It cannot be explained by absence of comprehension, inadequate attention, or lack of cooperation; it is usually associated with a stroke, head injury, or other condition affecting the cerebral hemispheres.

dysprosium (dĭs-prō'sĕ-ŭm) SYMB: Dy. A metallic element of the yttrium group of rare earths with atomic number 66 and an atomic mass of 162.50. It has a metallic, bright silver luster, and it is relatively stable in air at room temperature, but dissolves in dilute or concentrated mineral acids. Dysprosium is used in conjunction with vanadium and other elements, for making laser materials.

dysprosody (dĭs-prōs'ă-dĕ) Lack of the normal rhythm, melody, and articulation of speech. This condition may be present in patients with parkinsonism and in other disorders.

dysraphia, dysraphism (dĭs-ră'fĕ-ă, -fĭzm) [" + *rhaphe*, seam, ridge] In the embryo, failure of raphe formation or failure of fusion of parts that normally fuse. SEE: *neural tube defect*.

spinal d. A general term applied to failure of fusion of parts along the dorsal

midline that may involve any of the following structures: skin, vertebrae, skull, meninges, brain, and spinal cord.

dysrhythmia (dis-rith'mē-ă) [" + *rhythmos*, rhythm] Abnormal, disordered, or disturbed rhythm. SEE: *arrhythmia*.

cardiac d. SEE: *Nursing Diagnoses Appendix*.

dyssomnia (dī-sōm'nē-ă) Sleep disorders characterized by a disturbance in the amount, quality, or timing of sleep. They include primary insomnia, primary hypersomnia, narcolepsy, breathing-related sleep disorders, altitude insomnia, food allergy insomnia, environmental sleep disorder, and circadian rhythm sleep disorders. SEE: *sleep; sleep disorder*.

dysstasia (dī-stā'zē-ă) [" + *stasis*, standing] Difficulty in standing.

dysynchrony (dis-sīng'krō-nē) [" + "] Any disorder in the normal or expected coordination of timed events.

dysynergy (dis-sīn'ēr-jē) **1.** Uncoordinated contractions of muscle fibers (e.g., of the myocardium or of the urinary bladder when the external urinary sphincter is closed). **2.** The tendency of one addiction to predispose a person to another.

dystaxia (dis-tāk'sē-ă) [" + *taxis*, arrangement] Partial ataxia.

dystectia (dis-tēk'shē-ă) [" + L. *tectum*, roof] Failure of the embryonic neural tube to close during development. This is a cause of anencephaly, spina bifida, and meningocele.

dysthymia (dis-thī'mē-ă) [" + *thymos*, mind] Dysthymic disorder. SEE: *Nursing Diagnoses Appendix*.

dysthymic disorder (dis-thī'mīk) A chronically depressed or dysphoric mood that is present more than 50% of the time for at least 2 years in adults or as an irritable mood for 1 year for children or adolescents. Affected people describe themselves as being chronically sad and "down in the dumps." SYN: *dysthymia; dysthymic mood disorder*.

SYMPTOMS: The symptoms include:

1. poor appetite or overeating,
2. insomnia or hypersomnia,
3. low energy or fatigue,
4. low self-esteem,
5. poor concentration or difficulty making decisions, and
6. feelings of hopelessness.

The diagnosis of this disorder is not made if the patient has ever had a manic, hypomanic, or mixed manic and hypomanic episode. Often beginning in childhood or adolescence (where it occurs equally in both sexes), in adults the disorder is more common in women and may cause social or occupational impairment.

TREATMENT: Treatment traditionally has included tricyclic antidepressants, monoamine oxidase inhibitors, or

second-generation antidepressants (e.g., citalopram, fluoxetine, bupropion, paroxetine, sertraline, or venlafaxine). The latter drugs have the advantage of having no anticholinergic side effects, nor causing weight gain, nor altering cardiac conduction. They may, however, cause nausea, weight loss, or insomnia.

PATIENT CARE: All professional care providers teach the patient about depression, emphasizing available methods to relieve symptoms. As the patient learns to recognize depressive thought patterns, he can begin to consciously substitute self-affirming thoughts. The patient is encouraged to talk about and write down feelings. Health care providers listen attentively and share their observations of the patient's behavior but avoid feigning cheerfulness and judgmental responses. A structured routine with noncompetitive and group activities may help build the patient's self-confidence and ability to socialize. The patient is assessed for suicidal thoughts and ideation, and suicide precautions are instituted for patients at risk.

If antidepressant drug therapy has been prescribed, the patient is taught about the medications and is monitored for desired, adverse, and side effects. For drugs that produce anticholinergic effects, sugarless gum or hard candy may relieve dry mouth. For sedative drugs the patient should avoid activities that require alertness until the degree of such effects is known. The patient taking a tricyclic antidepressant should avoid alcohol and other central nervous system depressants. The patient taking a monoamine oxidase inhibitor should avoid foods that contain tyramine (ingestion may result in a hypertensive crisis). Patients prescribed serotonin reuptake inhibitors should avoid tryptans because of the risk of inducing a serotonergic crisis. The patient is reminded that most antidepressants take several weeks to work.

dysthyroid (dis'thī-rōyd) A state of abnormal thyroid functioning.

dysthyroidism (dis-thī'roy-dizm) [" + " + *eidos*, form, shape, + *-ismos*, condition] Imperfect development and function of the thyroid gland. SYN: *dysthyreosis*.

dystocia (dis-tō'sē-ă) [" + *tokos*, birth] Difficult labor. It may be produced by either the size of the fetus or the small size of the pelvic outlet.

FETAL CAUSES: Large fetal size (macrosomia) usually causes this condition. Other factors are malpositions of the fetus (transverse, face, brow, breech, or compound presentation), abnormalities of the fetus (hydrocephalus, tumors

of the neck or abdomen, hydrops), and multiple pregnancy (interlocked twins).

MATERNAL CAUSES: *Uterus:* Causes include primary and secondary uterine inertia, congenital anomalies (bicornuate uterus), tumors (fibroids, carcinoma of the cervix), and abnormal fixation of the uterus by previous operation. *Bony pelvis:* Causes include flat or generally contracted pelvis, funnel pelvis, exostoses of the pelvic bones, and tumors of the pelvic bones. *Cervix uteri:* Causes include Bandl's contraction ring, a rigid cervix that will not dilate, and stenosis and stricture preventing dilatation. *Ovary:* Ovarian cysts may block the pelvis. *Vagina and vulva:* Causes include cysts, tumors, atresias, and stenoses. *Pelvic soft tissues:* A distended bladder or colon may interfere.

DIAGNOSIS: Dystocia generally can be detected by vaginal examination, ultrasound, and external pelvimetry before the patient goes into labor.

TREATMENT: Treatment varies according to the condition that causes the dystocia. The goal is correction of the abnormality in order to allow the fetus to pass. If this is not possible, operative delivery is necessary. SEE: *cesarean section*.

dystonia (dis-tō'nē-ā) [*"* + *tonos*, tone] Prolonged involuntary muscular contractions that may cause twisting (torsion) of body parts, repetitive movements, and increased muscular tone. These movements may be in the form of rhythmic jerks. The condition may progress in childhood, but progression is rare in adults. In children the legs are usually affected first. **dystonic** (dis-tōn'ik), *adj.*

ETIOLOGY: Many childhood dystonias are genetically inherited. Drugs used to treat psychosis or Parkinson's disease, strokes, brain tumors, toxic levels of manganese or carbon dioxide, viral encephalitis, and other conditions may produce dystonia.

TREATMENT: Offending drugs are withdrawn, and the patient may be treated with diphenhydramine. Focal dystonias, such as blepharospasm or torticollis, may be treated with injected botulinum toxin, which paralyzes hypertonic muscle groups. Physiotherapy may also be helpful. Other treatments may include physical therapy, deep brain stimulation, and pallidotomy.

cervical d. Spasmodic torticollis.

focal d. Prolonged contraction affecting a single body part or a group of muscles, e.g., in the neck or hand. The most common focal dystonias are blepharospasm, torticollis, and writer's ("musician's") cramp.

idiopathic torsion d. A relatively uncommon, progressive neurological syndrome beginning in childhood and

marked by twisting postures of the neck, limbs, and/or pelvis. The condition is an autosomal dominant trait. SYN: *dystonia musculorum deformans*.

d. musculorum deformans Idiopathic torsion dystonia.

tardive d. Tardive dyskinesia.

dystopia (dis-tō'pē-ā) [*"* + *topos*, place] Malposition (1); displacement of any organ.

d. canthorum Lateral displacement of the inner canthi of the eyes. **dystopic** (-tōp'ik), *adj.*

dystrophia (dis-trō'fē-ā) Dystrophy.

dystrophin (dis-trōf'in) A protein of skeletal and cardiac muscle; it attaches the thin filaments of the sarcomeres to the proteins of the sarcolemma. Production of dystrophin is impaired in Duchenne's muscular dystrophy.

dystrophinopathy (dis-trōf'in-ōp'ā-thē) [*"* + *"*] Diseases of muscle, such as Duchenne or Becker muscular dystrophy, that result from deficiencies or abnormalities of dystrophin.

dystrophoneurosis (dis-trōf'ō-nū-rō'sis) [*"* + *trephein*, to nourish, + *neuron*, nerve, + *osis*, condition] Defective nutrition caused by disease of the nervous system.

dystrophy (dis'trō-fē) [Gr. *dys*, bad, + *trephein*, to nourish] A disorder caused by defective nutrition or metabolism.

dystrophic (-fik), *adj.*

adiposogenital d. A condition marked by obesity and hypogenitalism due to a disturbance in the hypothalamus, which controls food intake, and of the pituitary, which controls gonadal development. SYN: *Fröhlich's syndrome*.

cone-rod d. A form of retinitis pigmentosa in which central visual loss occurs first. Common symptoms include progressive visual loss followed by the loss of color perception, and eventually, peripheral visual loss and night blindness. The visual loss is not correctable with standard lenses. SEE: *retinitis pigmentosa*.

congenital hereditary endothelial d. ABBR: CHED. An eye disorder in which the corneal endothelium becomes cloudy, resulting in myopia.

corneal d. Any of several inherited disorders in which the cornea becomes cloudy, hazy, or speckled, resulting in variable degrees of visual loss.

corneoretinal d. Bietti's crystalline dystrophy.

facioscapulohumeral muscular d. A hereditary form of progressive muscular dystrophy with onset in childhood or adolescence. It is marked by atrophic changes in the muscles of the shoulder girdle and face, inability to raise the arms above the head, myopathic facies, eyelids that remain partly open in sleep,

and inability to whistle or purse the lips.

TREATMENT: Therapy is supportive; for example, orthopedic devices can be used to prevent functional losses at the shoulder girdle. The patient should be encouraged to maintain as full and normal a life as possible and to avoid prolonged bed rest.

macular d. Any inherited, progressive degeneration of the macula lutea retinae, marked by progressive central visual loss beginning in childhood or adolescence. Representative forms of macular dystrophy include Best's disease and Stargardt disease. SEE: *macula lutea retinae*.

progressive muscular d. Spinal muscular atrophy.

pseudohypertrophic muscular d. Duchenne's muscular dystrophy.

rod-cone d. A form of retinitis pigmentosa in which rod degeneration precedes cone degeneration. Night blindness is usually the first symptom, followed by peripheral visual loss.

dysuria (dis-ū'rē-ă) [r + *ouron*, urine] Painful or difficult urination, symptomatic of numerous conditions. Dysuria may indicate cystitis; urethritis; infection anywhere in the urinary tract; urethral stricture; hypertrophied, cancerous, or ulcerated prostate in men; prolapse of the uterus in women; pelvic peritonitis and abscess; metritis; cancer of the cervix; dysmenorrhea; or psycho-

logical abnormalities. The condition may also be caused by certain medications, esp. opiates and medicines used to prevent motion sickness as well as bladder irritants such as caffeine, artificial sweeteners, nicotine, and acidic foods. Pain and burning may be caused by concentrated acid urine.

PATIENT CARE: The patient with dysuria should be taught how to obtain a midstream, clean-catch urine specimen for culture and sensitivity. Additional diagnostic testing (e.g., urethral swabs or pelvic examinations) may be required based on patient history and physical examination. Unless fluids are restricted as a result of heart or kidney failure, the patient with dysuria may benefit from drinking fluids liberally to dilute the urine and reduce irritation. If phenazopyridine HCl is prescribed as a urinary analgesic/antiseptic, the patient should be advised to take the drug with meals to minimize gastric distress and reminded that the drug colors urine, saliva, and tears red or orange and may stain fabrics and contact lenses. If urinary tract or sexually transmitted infections are suspected or isolated, the patient may be prescribed an antibiotic. Patients found to have vaginal yeast infections may need antifungal treatment. SEE: *urinary tract infection*.

dyszoospermia (dīs'zō-ō-spĕrm'ē-ă) [r + " + *sperma*, seed] Imperfect formation of spermatozoa.