

effective cough, a series of short barklike coughs may be encouraged.

■ **INTERVENTIONS:** Simple techniques and encouragement significantly improve the effectiveness of the exercises. Positioning increases comfort, allows the abdominal contents to fall away from the diaphragm, and encourages full expansion of the chest wall on inspiration. If an incision is present, it may be supported with the hands or with a book or pillow held against the abdomen. The patient is often reluctant to breathe deeply or to cough; adequate analgesia, encouragement, and explanation of the benefits of the exercises may overcome that resistance. Various devices are available for use in deep breathing and coughing, such as those used during atelectasis to strengthen the muscles used in expiration and to empty the alveoli of retained gas. Postural drainage is commonly performed concurrently with the exercises.

■ **OUTCOME CRITERIA:** When shallow breathing replaces deep breathing, mucus tends to dry in the airway, damaging the membranes that line the passages. Coughing and deep breathing improve ventilation and gas exchange by clearing the mucus and allowing moisturized air to enter the bronchi, bronchioles, and alveoli.

deep fascia, the most extensive of three kinds of fascia comprising an intricate series of connective sheets and bands that hold the muscles and other structures in place throughout the body, wrapping the muscles in gray, feltlike membranes. The deep fasciae comprise a continuous system, splitting and fusing in an elaborate network attached to the skeleton and divided into the outer investing layer, the internal investing layer, and the intermediate membranes. Compare **subcutaneous fascia**, **subserous fascia**.

deep heat, the application of heat in the treatment of deep body tissues, particularly muscles and tendons. The thermal effects may be produced with shortwave therapy, phonophoresis, or ultrasound.

deepithelialization. See **epithelial debridement**.

deep palmar arch, the termination of the radial artery, joining the deep palmar branch of the ulnar artery in the palm of the hand.

deep reflexes [ME, *dep*, hollow; L, *reflectere*, to bend back], any reflexes caused by stimulation of a deep body structure, such as a tendon reflex.

deep sensation, the awareness or perception of pain, pressure, or tension in the deep layers of the skin, muscles, tendons, or joints. Such sensations are conveyed to the brain via the spinal column. Compare **superficial sensation**.

deep structure, (in linguistics and neurolinguistics) the deeper experience and meaning to which surface structures in a communication may refer.

deep temporal artery, one of the branches of the maxillary artery on each side of the head. It branches into the anterior portion and the posterior portion, both rising between the temporalis and the pericranium to supply the temporalis and to anastomose with the middle temporal artery. The anterior branch communicates with the lacrimal artery by small branches that pierce the zygomatic bone and the great wing of the sphenoid. Compare **middle temporal artery**, **superficial temporal artery**.

deep tendon reflex (DTR), a brisk contraction of a muscle in response to a sudden stretch induced by a sharp tap by a finger or rubber hammer on the tendon of insertion of the muscle. Absence of the reflex may be caused by damage to the muscle, peripheral nerve, nerve roots, or spinal cord at that level. A hyperactive reflex may indicate disease of the pyramidal tract above the level of the reflex arc being tested. Generalized hyperactivity of DTRs may be caused by hyperthyroidism. Kinds of DTRs include **Achilles tendon**

reflex, **biceps reflex**, **brachioradialis reflex**, **patellar reflex**, and **triceps reflex**. Also called **myostatic reflex**, **tendon reflex**.

deep vein, one of the many systemic veins that accompany the arteries, usually enclosed in a sheath that wraps both the vein and the associated artery. Various structures, such as the skull, vertebral column, and liver, are served by less closely associated arteries and veins. Compare **superficial vein**.

deep vein thrombosis, a disorder involving a thrombus in one of the deep veins of the body, most commonly the iliac or femoral vein. Symptoms include tenderness, pain, swelling, warmth, and discoloration of the skin. A deep vein thrombus is potentially life threatening. Treatment, including bed rest and use of thrombolytic and anticoagulant drugs, is directed to preventing movement of the thrombus toward the lungs.

deep x-ray therapy, the treatment of internal neoplasms, such as Wilms' tumor of the kidney, Hodgkin's disease, and other cancers, with ionizing radiation from an external source. The dose delivered is determined according to the radiosensitivity, size, pathologic grade, and differentiation of the tumor; the tolerance of normal surrounding tissue to irradiation; and the patient's condition. Deep x-ray therapy frequently causes nausea, malaise, diarrhea, and skin reactions, such as blanching, erythema, itching, burning, oozing, or desquamation, but with modern techniques the ray is beamed directly to the site, reducing side scatter, and the skin can be spared. Because tumor cells are hypoxic and are more effectively eradicated when they are well oxygenated, the patient may breathe hyperbaric oxygen or atmospheric oxygen with 5% carbon dioxide during therapy.

deerfly fever. See **tularemia**.

defaecation. See **defecation**.

defamation /def'əmā'shən/ [L, *diffamare*, to discredit], any communication, written or spoken, that is untrue and that injures the good name or reputation of another or that in any way brings that person into disrepute.

default judgment /dif'ōlt'/ [L, *defallere*, to lack, *judicare*, to decide], (in law) a judgment rendered against a defendant as a result of the defendant's failure to appear in court or to answer the plaintiff's claim within the proper time.

defecation /def'ikā'shən/ [L, *defaecare*, to clean], the elimination of feces from the digestive tract through the rectum. Also spelled **defaecation**. See also **constipation**, **diarrhea**, **feces**. —**defecate** /def'ikāt/, v.

defecation reflex. See **rectal reflex**.

defecography /def'əkog'rəfē/, the radiographic examination of the rectum and anal canal of patients with defecative dysfunction. A barium sulfate paste is instilled directly into the rectum, and the patient is seated on a radiolucent commode in front of a fluoroscope. Lateral projections of the rectum and anal canal are recorded during defecation.

defective /difek'tiv/ [L, *defectus*, a failing], pertaining to something that is imperfect, or, as in an outdated term, to an individual who may be suffering from any disorder.

defendant /difen'dənt/, (in law) the party named in a plaintiff's complaint and against whom the plaintiff's allegations are made. The defendant must respond to the allegations.

defense /də-fens'/ [L, *defendere*, to ward off], the practice of, or measures taken to ensure, self-protection.

defense mechanism [L, *defendere*, to repulse, *mechanicus*, machine], an unconscious intrapsychic reaction that offers protection to the self from stress or a threat. Defense mechanisms are of two types: those that diminish anxiety and are used by an individual to integrate more fully into society, and those that do not reduce anxiety but simply postpone the