

Exhibit 18

27th
Edition

DORLAND'S
ILLUSTRATED

REFERENCE
0.2

Medical Dictionary

W.B. SAUNDERS COMPANY
Harcourt Brace Jovanovich, Inc.
Philadelphia London Toronto
Montreal Sydney Tokyo

STAN 031817

Dorland's illustrated medical dictionary.
Philadelphia: W.B. Saunders Co.,

v.: ill.; 27 cm.

Irregular.

Began publication with 23rd ed.

Description based on: 26th ed.

Continues: American illustrated medical dictionary.

1. Medicine—Dictionaries. I. Dorland, W.A. Newman
(William Alexander Newman), 1864–1956.

[DNLM: 1. Dictionaries, Medical. 2. Reference Books,
Medical]

R121.D73

610'.3'21—dc19

0-6388

AACR 2 MARC-S

Library of Congress

[8607r85]rev6

W.B. SAUNDERS COMPANY
Harcourt Brace Jovanovich, Inc.

The Curtis Center
Independence Square West
Philadelphia, PA 19106

Listed here are the latest translated editions of this book together with the languages for the translations and the publishers

Italian (*26th Edition, revised*)—Edizioni Scientifiche Internazionali (ESI), Milan, Italy

Japanese (*26th Edition*)—Hirokawa Publishing Company, Tokyo, Japan

Spanish (*26th Edition*) (Adaption)—Nueva Editorial Interamericana, Mexico City, Mexico

Managing Editor, Dictionaries: Elizabeth J. Taylor

Editors: Douglas M. Anderson, Joseph M. Patwell, Katharine Plaut, Kathieen McCullough

Production Manager: Carolyn Naylor

Illustrator: Sharon Iwanczuk

Illustration Coordinator: Walt Verbitski

Mechanical Artist: Melissa Walter

Dorland's Illustrated Medical Dictionary

ISBN 0-7216-3154-1

© 1988 by W.B. Saunders Company. Copyright 1900, 1901, and 1903 by W.B. Saunders and Company. Copyright 1906, 1909, 1911, 1913, 1915, 1917, 1919, 1921, 1923, 1927, 1929, 1932, 1935, 1938, 1941, 1944, 1947, 1951, 1957, 1965, 1974, 1981, and 1986 by W.B. Saunders Company.

Copyright under the Uniform Copyright Convention. Simultaneously published in Canada. All Copyright Renewals Registered.

Derechos reservados conforme a la ley para la Republica Mexicana.

All Rights Reserved. This book is protected by copyright. No part of it may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without written permission from the publisher. Made in the United States of America.

Some of the words appearing in the Dictionary are proprietary names (trademarks) even though no reference to this fact is made in the text. The appearance of any name without designation as a trademark is therefore not to be regarded as a representation by the editors or publisher that it is not a trademark or is not the subject of proprietary rights.

The use of portions of the text of the *United States Pharmacopeia*, Twenty-first Revision, official from January 1, 1985, of the *National Formulary*, Sixteenth Edition, official from January 1, 1985, and of *USAN and the USP Dictionary of Drug Names 1985* is by permission received from the Board of Trustees of the United States Pharmacopeial Convention, Inc. The said Convention is not responsible for any inaccuracy of quotation, or for any false or misleading implication that may arise by reason of the separation of excerpts from the original context or by obsolescence resulting from the publication of a supplement.

Library of Congress catalog card number 78-50050

Last digit is the print number: 9 8 7 6

STAN 031818

- Russell e.**, the rendering of a photographic plate developable by agents other than light; called also *photoelectric effect*. **side e.**, see under *S*. **Somogyi e.**, see under *phenomenon*. **Soret e.**, when a solution is maintained for some time in a temperature gradient, a difference in concentration develops along the temperature gradient. **specific dynamic e.**, see under *action*. **Staub-Traugott e.**, a second dose of dextrose by mouth to a normal person one hour after a first dose does not elevate the blood sugar level. **Tyndall e.**, see under *phenomenon*. **Whitten e.**, initiation and synchronization of the estrous cycles and reduction of the frequency of reproductive abnormalities in female mice by the odor (pheromone) of a male mouse placed among them; when more than four female mice are placed together in a cage their estrous cycles become very erratic. **Wolff-Chaikoff e.**, inhibition of the synthesis of thyroid hormone after administration of large doses of iodide. **Zeeman e.**, separation of a single line in the spectrum by suitable magnetic fields.
- effectiveness** (è-fek'tiv-nes) the ability to produce a specific result or to exert a specific measurable influence. **relative biological e.**, an expression of the effectiveness of other types of radiation in comparison with that of gamma or roentgen rays. Abbreviated RBE.
- effector** (ef-fek'tor) 1. an agent that mediates a specific effect, e.g., an allosteric effector or an effector cell. 2. an organ that produces an effect, e.g., contraction or secretion, in response to nerve stimulation. Cf. *receptor*. **allosteric e.**, an enzyme inhibitor or activator that has its effect at a site other than the catalytic site of the enzyme; see also under *site*, and see *allosterism*.
- effemination** (è-fem'i-na'shun) feminization.
- effluent** (ef-fer-ent) [L. *ex* out + *ferre* to bear] centrifugal; conveying away from a center, as an effluent nerve.
- efferential** (ef'er-en'shal) efferent.
- effervescent** (ef-er-ves'ent) [L. *effervescens*] bubbling; sparkling; giving off gas bubbles.
- effleurage** (ef-loo-ranzh') [Fr.] stroking movement in massage; frottage.
- efflorescence** (ef'lo-res'ens) [L. *efflorescentia*] a rash or eruption; any skin lesions, especially numerous and conspicuous lesions.
- efflorescent** (ef'lo-res'ent) [L. *efflorescere* to bloom] becoming powdery in consequence of losing water of crystallization.
- effluve** (ef-lööv') a conductive discharge of a high voltage current through a dielectric.
- effluvia** (ef-floo've-ah) [L.] plural of *effluvium*.
- effluvium** (ef-floo've-um), pl. *efflu'via* [L. "a flowing out"] 1. an outflowing, or shedding, especially of the hair. 2. an exhalation or emanation, applied especially to one of noxious character. **anagen e.**, abnormal loss of hair during the anagen phase, which may occur following administration of certain cancer chemotherapeutic agents or exposure to certain chemicals, or in association with various other factors and diseases. **telluric e.**, an emanation arising from the earth; see *miasma* and *tellurium*. **tologen e.**, the early, excessive, temporary loss of normal club hairs from normal resting follicles in the scalp as a result of traumatization by some stimulus (e.g., surgery, starvation diet, parturition, drugs, traction, high fever, certain diseases, or psychogenic stress) that prematurely precipitates the anagen phase into catagen and telogen phases, altering the normal hair cycle.
- effraction** (ef-frak'shun) a breaking open; a weakening.
- effumability** (ef'u-mah-bil'i-te) [L. *ex* out + *fumus* smoke] the property of being easily volatilized.
- effuse** [L. *effusus*, from *ex* out + *fundere* to pour] 1. (è-füs') spread out, profuse; said of bacterial growth that is thin, veily, and unusually widely spread. 2. (è-füz') to pour out and spread widely.
- effusion** (è-füz'zhun) [L. *effusio* a pouring out] 1. the escape of fluid into a part or tissue, as an exudate or a transudation. 2. an effused material, which may be classified according to protein content as an exudate or transudate. **hemorrhagic e.**, an effusion of bloody liquid. **pleural e.**, the presence of liquid in the pleural space.
- Efudex** (ef'u-deks) trademark for a preparation of fluorouracil for topical application.
- egagropilus** (e'gah-grop'i-lus) [Gr. *egagrus* wild goat + *pilos* felt] trichobezoar.
- egersimeter** (e'ger-sim'è-ter) an instrument for testing the electric excitability of nerves and muscles and for measuring chronaxia.
- egersis** (e-ger'sis) [Gr.] (obs.) extreme wakefulness.
- egesta** (e-jes'tah) [L. *e* out + *gerere* to bear] undigested material thrown out from the body.
- egestion** (e-jes'chun) the casting out of material which is indigestible.
- egg** (eg) [L. *ovum*] 1. an ovum; a female gamete. 2. an oocyte. 3. a female reproductive cell at any stage before fertilization and its derivatives after fertilization and even after some development.
- Eggleston's method** (eg'el-stunz) [Cary Eggleston, New York physician, 1884-1966] see under *method*.
- egilops** (e'j-löps) [Gr. *aix* goat + *ops* eye] perforating abscess at the inner canthus of the eye.
- eglandulous** (e-gland'u-lus) [L. *e* without + *glandula* glandule] having no glands.
- ego** (e'go) [L. "I"] in modern psychoanalytic theory, the psychologic segment of the personality, dominated by the reality principle, comprising integrative and executive aspects that function to adapt the forces and pressures exerted by the impulses of the id, the demands of the superego, and the requirements of external reality through conscious perception, thought, reasoning, learning, and all other activities necessary to interact effectively with the world. Cf. *id* (def. 1) and *superego*.
- ego-alien** (e'go-äl'yen) ego-dystonic.
- egobronchophony** (e'go-bron-koff'o-ne) [Gr. *aix* goat + *bronchophony*] increased vocal resonance with high-pitched bleating quality of the transmitted voice, detected by auscultation of the lungs, especially over lung tissue compressed by pleural effusion.
- egocentric** (e'go-sen'trik) [L. *ego* I + *centric*] self-centered, conceited, egotistical; preoccupied with one's own interests and needs; lacking concern for others.
- ego-dystonic** (e'go-dis-ton'ik) denoting aspects of a person's thoughts, impulses, attitudes, and behavior that are felt to be repugnant, distressing, unacceptable, or inconsistent with the rest of his personality. Cf. *ego-syntonic*.
- ego-ideal** (e'go-i'de-al) see under *ideal*.
- egoism** (e'go-izm) 1. a healthy awareness and advancement of one's own interests. 2. the philosophical doctrine that self-interest is the proper basis of all human conduct. 3. self-centeredness, egotism.
- egomania** (e'go-ma'ne-ah) [Gr. *egō* I + *mania* madness] extreme self centeredness; extreme egotism.
- egophony** (e-göf'o-ne) [Gr. *aix* goat + *phonē* voice] egobronchophony.
- ego-syntonic** (e'go-sin-ton'ik) denoting aspects of a person's thoughts, impulses, attitudes, and behavior that are felt to be acceptable and consistent with the rest of his personality. Cf. *ego-dystonic*.
- egotism** (e'go-tizm) conceit, selfishness, self-centeredness; an inflated sense of one's importance.
- egotropic** (e'go-trop'ik) [Gr. *ego* I + *tropes* a turning] egocentric.
- E_h**, symbol for *redox potential*.
- EHB** estimated hepatic blood flow.
- EHDP** ethane-1-hydroxy-1,1-diphosphonate; see *etidronate*.
- Ehlers-Danlos syndrome (disease)** (e'terz-dan'los) [Edvard Ehlers, Danish dermatologist, 1863-1937; Henri Alexandre Danlos] see under *syndrome*.
- Ehrenritter's ganglion** (er'en-rit'ertz) [Johann Ehrenritter, Austrian anatomist, died 1790] ganglion superius nervi glossopharyngei.
- Ehrlich** (är'hik) Paul, German physician and bacteriologist, 1854-1915; co-winner, with Elie Metchnikoff, of the Nobel prize for medicine or physiology in 1908 for developing the side chain theory.
- Ehrlich's reaction, etc.** (är'hik) [Paul Ehrlich] see under *body, granule, reaction, stain, test, and theory*, and see *arsphenamine*.
- Ehrlich-Hata preparation, remedy, treatment** [Paul

signa

1527

silver

Wreden's s., presence of a gelatinous matter in the external auditory meatus in children who are born dead. **Zaufal's s.**, saddle nose.

signa (sig'nah) [L.] mark, or write; abbreviated S. or sig. on prescriptions. See *prescription*.

signature (sig'nah-chur) [L. *signatura*] 1. that part of a prescription which gives directions to the patient for taking of medicine; abbreviated S. or sig. See *prescription*. 2. any characteristic feature of a substance formerly regarded as an indication of its medicinal virtues; thus, the eyelike mark on the flower of the euphrasia was supposed to show its usefulness in eye diseases; the liver-like shape of the leaf of liverwort pointed to its use in hepatic diseases; the yellow color of saffron indicated its use in jaundice.

signe (sen) [Fr.] sign.

significant (sig-nif'ik-ant) in statistics, probably resulting from something other than chance.

Signorelli's sign (sen-yor-el'ez) [Angelo Signorelli, Italian physician, 1876-1952] see under *sign*.

Sig. n. pro. abbreviation for *L. signa nom'ine pro'prio*, label with the proper name.

siguatera (sig'wah-ta'rah) [Sp.] ciguatera.

sikimi (sik'i-me) [Japanese] the plant *Illicium religiosum*.

sikimin (sik'i-min) a poisonous hydrocarbon, C₁₀H₁₆, found in the leaves of *Illicium religiosum*.

sikimitoxin (sik-im'i-tok'sin) a poisonous substance extracted from sikimi.

silafilcon A (sil'ah-fil'kon) chemical name: poly (dimethyl diphenyl methylvinyl phenyl hydrodimethyl siloxane); a hydrophilic contact lens material.

silafocon A (sil'ah-fo'kon) a hydrophobic contact lens material.

Silain (sil'an) trademark for preparations of simethicone.

silandrone (sil-an'dron) chemical name: 17β-(trimethylsilyloxy)androst-4-en-3-one; an androgenic steroid, C₂₇H₄₆O₂Si.

Silastic (sil-las'tik) trademark for polymeric silicone substances having the properties of rubber; it is biologically inert and used in surgical prostheses.

silent (sil'ent) producing no detectable signs or symptoms; noiseless.

silex (sil'eks) [L. "flint"] a refined form of silica powder, which may be mixed with water or a mouthwash solution to form a fine abrasive paste for polishing metal castings.

Silex's sign (sil'eks-ez) [Paul Silex, German ophthalmologist, 1858-1929] see under *sign*.

silica (sil'i-kah) [L. *silex* flint] silicon dioxide, SiO₂, or silicic anhydride, occurring in nature as agate, amethyst, sand, quartz, chalcedony, cristobalite, and flint. It is one of the major constituents of dental porcelain, and in granular form serves as a dental abrasive and polishing agent.

silicate (sil'i-kât) [L. *silicus*] a salt of any of the silicic acids.

silicatosi (sil'i-kah-to'sis) pneumoconiosis caused by the inhalation of the dust of silicates.

silicea (sil'is'e-ah) a homeopathic preparation of silica.

siliceous, silicious (sil'ish'us) containing silica or a compound of silicon.

silicic acid (sil'ik'ik) the molecular species Si(OH)₄, occurring in hydrated forms of silica, e.g., silica gel.

silicoanthracosis (sil'i-ko-an'thrak-ko'sis) silicosis combined with pneumoconiosis of coal workers.

Silicoflagellida (sil'i-ko-flah-jel'i-dah) [silicon + Gr. *flagellum* whip] an order of plantlike flagellate marine protozoa (class Phytomastigophorea, subphylum Mastigophora) having one flagellum, golden-brown or green-brown chloroplasts, and a star-shaped siliceous skeleton that envelops the body. *Dictyocha* is a representative genus.

silicofluoride (sil'i-ko-floo'o-rid) fluorosilicate.

silicol (sil'i-kol) an organic silica compound, silicic oxide casein metaphosphate; used in the treatment of tuberculosis.

silicon (sil'i-kon) [L. *silex* flint] a nonmetallic element occurring in nature as silica (s. dioxide); symbol, Si; atomic number, 14; atomic weight, 28.086. **s. carbide**, a compound produced by the reaction of silicon and carbon at extremely high temperature, used in dentistry as an abrasive agent. Trade names include Carborundum, Crystolon, and Carbolon. **s. dioxide, silica. s. dioxide, colloidal**

[NF], a submicroscopic fumed silica prepared by the vapor-phase hydrolysis of a silicon compound; used as a tablet diluent and as a suspending and thickening agent. **s. fluoride**, SiF₄, a colorless gas sometimes fatal to workers in superphosphate factories.

silicone (sil'i-kon) any organic compound in which all or part of the carbon has been replaced by silicon.

silicosiderosis (sil'i-ko-sid'er-oh'sis) pneumoconiosis in which the inhaled dust is that of silica and iron.

silicosis (sil'i-ko'sis) [L. *silex* flint] pneumoconiosis due to the inhalation of the dust of stone, sand, or flint containing silicon dioxide, with formation of generalized nodular fibrotic changes in both lungs. Called also *grinders' disease*. **infective s.**, silicotuberculosis.

Silicote (sil'i-kôt) trademark for preparations of dimethylsilicone.

silicotic (sil'i-kot'ik) pertaining to or characterized by silicosis.

silicotuberculosis (sil'i-ko-tu-ber'ku-lo'sis) tuberculous infection of the silicotic lung; infective silicosis.

siliqua (sil'i-kwah) [L.] pod, or husk. **s. oli'vae** ["husk of the olive"], the fibers which appear to encircle superficially the inferior olive of the brain; their outer and inner portions are termed *funiculus lateralis medullae oblongatae*. Called also *amiculum olivae*.

siliqueous (sil'i-kwôs) pertaining to or resembling a pod or husk; see under *cataract*.

silonneur (se-yon-nur') [Fr.] (obs.) a three-bladed scalpel for operations on the eye.

Silvadene (sil'vah-dên) trademark for a preparation of silver sulfadiazine.

silvatic (sil-vat'ik) [L. *silva* a wood or woods] pertaining to or occurring in the woods; as *silvatic plague*.

silver (sil'ver) [L. *argentum*] a white, soft, malleable, and ductile metal; symbol, Ag; atomic number, 47; atomic weight, 107.870. Its compounds are extensively used in medicine, and metallic silver is employed in surgery and in the manufacture of instruments. In dentistry, it is used chiefly in prostheses, in alloys, in soldering, to neutralize the color imparted by copper in alloys, and as points to obliterate the root canal. **s. arspenamine**, see under *arsphenamine*. **s. chloride**, an insoluble white salt, AgCl, that darkens in light, called *horn silver* in mineral form. **colloidal s.**, a silver preparation in which the silver exists as free ions to only a small extent. See *protein s., mild*, and *protein s., strong*. **s. cyanide**, a soluble salt, AgCN. **s. iodide**, an insoluble, light-yellowish, binary, powdery compound, AgI, that turns black in the light; used in treatment of syphilis, nervous diseases, and conjunctivitis. **s. iodide, colloidal, silver iodide** in solution rendered stable by gelatin, an antiseptic for treating inflammations of mucous membranes. **s. nitrate** [USP], a powerful germicide, AgNO₃, occurring as colorless or white crystals; used as an antiseptic, applied topically to the conjunctiva as a prophylactic against ophthalmia neonatorum, and also used as an antiseptic and astringent, especially in infections of the skin and mucous membranes. It has also been used to purify drinking water. **s. nitrate, toughened** [USP], a compound prepared by fusing silver nitrate with hydrochloric acid, sodium chloride, or potassium nitrate, occurring as white crystalline masses molded into pencils or cones, and containing 94.5 per cent of silver nitrate; used as a caustic and applied topically after being dipped in water. Called also *lunar caustic*, *fused silver nitrate*, and *molded silver nitrate*. **s. orthophosphate**, an insoluble yellow powder, Ag₃PO₄. **s. oxide**, a heavy brownish-black powder, Ag₂O. **s. picrate**, yellow crystals, C₆H₂(NO₂)₃OAg·H₂O, used as a topical anti-infective, especially in infections of the skin and mucous membranes; it has been used in the treatment of vaginal trichomoniasis and candidiasis, administered by insufflation or in pessaries. **s. protein, mild**, a preparation containing 19-23 per cent of silver, rendered colloidal by the presence of, or combination with, protein; it occurs as dark brown or almost black scales or granules and is used as a topical anti-infective in various rectal, ocular, vaginal, urethral, otic, nasal, and pharyngeal infections. **s. protein, strong**, a pale yellowish orange to brownish black powdered compound of silver and protein containing 7.5-8.5 per cent of silver, an active germicide with a local irritant and astringent effect. It may cause argyria. **s. sulfadiazine**, the silver deriva-

the lungs through phylogeny. **target t.**, the theory advanced to explain some biological effects of radiation on the basis of ionization occurring in a very small sensitive region within the cell, which postulates that one or more ionizing events, or "hits," within the sensitive volume are necessary to bring about the biological end-effect; called also *hit t.* **template t.**, a theory of the mechanism of antibody specificity, current during the 1930s and 40s, which proposed that the shape of an antibody molecule is determined as it is synthesized by being molded on an antigen molecule. The antigen thus "instructs" a cell to make specific antibody. Called also *instructive t.* **thermostat t.**, a theory which suggests that the feeding and satiety centers of the brain, like the thermoregulatory centers, are sensitive to body temperature; a decrease in body temperature activates the feeding center and depresses the satiety center, whereas increased temperature acts on the centers in the opposite way. **Traube's resonance t.**, resonance t., def. 2. **trialistic t.**, the theory that the blood cells arise from three distinct types of primitive cells, the myeloblasts, lymphoblasts, and monocytes. Cf. *dualistic t.*, *monophyletic t.*, and *polyphyletic t.* **undulatory t.**, wave t. **unitarian t.**, monophyletic t. **unitary t.**, the theory that disease is single in its nature and is not made up of separate and distinct morbid entities. **wave t.**, the theory that light, heat, and electricity are transmitted through space in the form of waves. **Weismann's t.**, see *weismannism*. **Woods-Fildes t.**, the theory that the antibacterial activity of at least some chemotherapeutic drugs (especially the sulfonamides) is a consequence of a competitive inhibition of essential metabolic reactions of the microorganism. **Young-Helmholtz t.**, the doctrine that color vision depends on three sets of retinal fibers, corresponding to the colors red, green, and violet. **Zuntz's t.**, a theory of muscle contraction.

theotherapy (thē'o-ther'ah-pe) [Gr. *theos* god + *therapeia* the treatment of disease by prayer and religious exercises.]

Thephorin (thē'fo-rin) trademark for preparations of phenidamine tartrate.

theque (tēk) [Fr. a "box or small chest"] a round or oval collection, or nest, of melanin-containing nevus cells occurring at the dermoepidermal junction of the skin or in the dermis proper.

therapeusis (ther'ah-pu'sis) therapeutics.

therapeutic (ther'ah-pu'tik) [Gr. *therapeutikos* inclined to serve] 1. pertaining to therapeutics, or to the art of healing. 2. curative.

therapeutics (ther'ah-pu'tiks) 1. the science and art of healing. 2. a scientific account of the treatment of disease.

therapist (ther'ah-pu'tist) therapist.

Theraphosidae (ther'ah-to'si-de) a family of very large hairy spiders (suborder Orthognatha) found in temperate and tropical areas. *Sericopelma communis* is the only species whose venom has a harmful effect on man, but some are capable of inflicting painful bites. The members of this family are sometimes improperly called tarantulas.

therapia (ther'ah-pi'ah) [L., from Gr.] therapy. **t. sterili/sans mag'na**, Ehrlich's procedure of treatment by the use of some chemical agent which will destroy the parasites in the body of a patient without being seriously toxic for the patient.

therapist (ther'ah-pist) [Gr. *therapeutes* one who attends to the sick] a person skilled in the treatment of disease; often combined with a term indicating the specific type of disorder treated (as *speech therapist*) or a particular type of treatment rendered (as *physical therapist*). **physical t.**, a person skilled in the techniques of physical therapy and qualified to administer treatments prescribed by a physician and under his supervision; called also *physiotherapist*. **speech t.**, a person specially trained and qualified to assist patients in overcoming speech and language disorders.

therapy (ther'ah-pe) [Gr. *therapeia* service done to the sick] the treatment of disease; therapeutics. See also under *treatment*. **anticoagulant t.**, the use of drugs to render the blood sufficiently incoagulable to discourage thrombosis. **auto serum t.**, treatment of disease by the injection of the patient's own blood serum. **aversion t.**, therapy directed at associating an undesirable behavior pattern with unpleasant stimulation or at making the unpleasant stimulation a consequence of the undesirable behavior. **beam t.**, 1. treatment by exposure to light from one of the colors of the spectrum. 2. treatment by radiation emitted from a source

located at a distance from the body. **behavior t.**, a therapeutic approach in which the focus is on the patient's observable behavior, rather than on conflicts and unconscious processes presumed to underlie his maladaptive behavior. This is accomplished through systematic manipulation of the environmental and behavioral variables related to the specific behavior to be modified; operant conditioning, systematic desensitization, token economy, aversive control, flooding, and implosion are examples of techniques that may be used in behavior therapy. Called also *behavior modification* and *conditioning therapy*. **biological t.**, treatment of disease by the injection of the substances which produce a biological reaction in the organism. The term includes the use of sera, antitoxins, vaccines, and nonspecific proteins. **buffer t.**, intravenous injection of buffer substances, such as sodium bicarbonate, with the object of lowering the hydrogen ion concentration. **carbon dioxide t.**, a form of (rarely used) shock therapy employed for the treatment of withdrawn psychotic patients, in which unconsciousness is induced by the administration of carbon dioxide gas by inhalation. **Chaoul t.**, short source-to-tissue distance, low-voltage roentgen therapy; see also under *tube*. **collapse t.**, treatment of pulmonary tuberculosis by operative collapse of the diseased lung. **conditioning t.**, behavior t. **convulsive t.**, treatment of mental disorders, primarily depression, by induction of convulsions. The type now almost universally used is electroconvulsive therapy (ECT), in which the convulsions are induced by electric current. In the original convulsive therapy the convulsions were induced pharmacologically, at first by pentylene tetrazol (Metrazol) and later by flurothyl (Indoklon). Formerly called *shock t.* **corrective t.**, the planning and administration of progressive physical exercise and activities most effective in improving or maintaining general physical and emotional health, through individual or group participation. **Curie t.**, treatment with a radioactive source, e.g., radium. **deep roentgen-ray t.**, treatment by x-radiations generated by at least 150 kilovolts and capable of penetrating significantly below the skin level. **deleading t.**, the use of chelating agents in the mobilization and excretion from the body of heavy metals, such as lead, radium, etc. **diathermic t.**, treatment by thermopenetration; see *diathermy*. **duplex t.**, treatment by diathermic and galvanic currents in combination, both currents being passed through the body at the same time by way of the same two electrodes. **electric convulsive t. (ECT)**, **electric shock t. (EST)**, electroconvulsive t. **electroconvulsive t. (ECT)**, a treatment for mental disorders, primarily depression, in which convulsions and loss of consciousness are induced by application of low-voltage alternating current to the brain via scalp electrodes for a fraction of a second; a muscle relaxant, generally succinylcholine, is used to prevent injury during the seizure. The coma lasts about 5 minutes and is followed by an acute confusional state lasting about an hour; some memory impairment may be present for several weeks after treatment. ECT produces a therapeutic response in a majority of cases of major depression; it has also been used in schizophrenia, primarily in treatment of acute schizophrenic episodes. **electroshock t. (EST)**, electroconvulsive t. **emanation t.**, treatment by ionizing radiations emitted by a radioactive source. **family t.**, group therapy of the members of a family, with exploration of family relationships and processes as potential causes of mental disorder in one or more members of the family. **fever t.**, treatment of disease by induction of high body temperature, accomplished by physical means or by injection of fever-producing vaccines. **Fliess t.**, see under *treatment*. **grid t.**, therapeutic application of ionizing radiations through a metal grid having a pattern of small, evenly spaced perforations. **group t.**, psychotherapy carried out with a group of patients or the relatives of patients or both, which includes utilization of interactions of members of the group to effect changes in maladaptive behavior of the individual members, under the guidance of a single therapist. Called also *group psychotherapy*. **heterovaccine t.**, bacterial vaccine therapy by the use of some infectious agent other than the specific one causing the disease. **high-voltage roentgen t.**, treatment by deeply penetrating x-rays generated by voltages of over 300 kilovolts. **humidification t.**, the use of air supersaturated with moisture in congestive conditions of the upper and lower respiratory tract. **hunger t.**, limotherapy. **immunization t.**, treatment with antiserum and with actively antigenic substances, e.g., vaccines. **immu-**