



W Symbol for the element tungsten (wolfram).

w *watt; week; wife; with.*

Waardenburg syndrome (vär'dën-bürg) [Petrus Johannes Waardenburg, Dutch ophthalmologist, 1886–1979] One of several related autosomally transmitted syndromes that may produce skin, neurological, ophthalmic, and auditory deficits.

wafer (wä'fēr) [Ger. *wafel*] A thin envelope or disk used to enclose a medication or to separate two structures from one another.

WAGR syndrome An acronym for a rare cluster of conditions and illnesses in childhood, including Wilms' tumor of the kidney, aniridia, gonadoblastoma, and mental retardation. Children affected by this sporadically occurring disease have mutations of chromosome 11 and at least two of the four listed conditions.

waist (wäst) [ME. *wast*, growth] The small part of the human trunk between the thorax and hips.

waist circumference A gauge of abdominal obesity, obtained by measuring the abdomen at the level of the superior iliac crest with a tape measure. Among non-Asian American males, a waist circumference greater than 40 in (102 cm) increases the risk of diabetes mellitus, hypertension, hyperlipidemia, and heart disease. A circumference greater than 35 in (88 cm) conveys similar risks for non-Asian American women. Americans of Asian ancestry have a lower risk of obesity than African Americans, European Americans, and Hispanics. Among Asians risks rise for men with a waist line that measures 36 in (91 cm) and for women when the waist exceeds 32 in (81 cm). SEE: *waist-to-hip ratio*.

PATIENT CARE: To measure an individual's waist, have the patient face away from the care provider with hands placed on the top of the hipbones or iliac crests. This spot should them be marked on each hip, using a felt-tip pen or skin marker. A measuring tape is then placed around the patient at the level of the iliac crests. It should be parallel to the floor and snug but not tight enough to dent the skin. The patient then exhales normally, and the measurement is taken and recorded. Weight loss should be encouraged when waist circumferences exceed guidelines, or when the body mass index is greater than 25 kg/m², using dietary modification and exercise. Physical activity should consist of more than 35 min of moderate-intensity aerobic ex-

ercise daily (unless contraindicated). Brisk walking is a good choice for most individuals, although any form of exercise that a patient finds enjoyable should be encouraged.

waist-to-hip ratio The measured circumference of the waist divided by the measured circumference of the hip. It has been used as one of several means of estimating abdominal body fat. Other anthropometrics that are similarly used are the "waist circumference," the "waist-to-height ratio," and the "body mass index." Although each of these measurements, if abnormal, has been statistically linked to increased risks for cardiovascular disease, they vary in their specificity and usefulness in people of differing ages and ethnicities.

waiting child A child who is protected by governmental agencies and made ready for adoption after abandonment, abuse, or neglect in his or her home. Also known as a *special needs child*.

waiting list A form of health care rationing that is used esp. in the distribution of scarce resources, such as organs for transplantation.

waived test Any relatively simple laboratory test (such as a fecal occult blood test) that is permitted under the Clinical Laboratory Improvement Amendments (CLIA) of the U.S. Food and Drug Administration to be performed without special laboratory certification, inspection, or proficiency testing.

waiver 1. An exemption from some aspect of a federal health care statute that gives a facility the right to deliver care in a manner that varies from published standards. 2. The voluntary surrender of some legal right or privilege.

wakeful (wāk'fūl) [AS. *wacian*, to be awake, + *full*, complete] 1. Not able to sleep; sleepless. 2. Alert.

Walcher's position (völ'kêrz) [Gustav Adolf Walcher, Ger. gynecologist, 1856–1935] A rarely used position for difficult deliveries in which the patient assumes a dorsal recumbent position with the hips at the edge of the bed and the legs hanging down, but supported.

Wald, Lillian (wäld) U.S. nurse, 1867–1940, who founded the Henry Street Settlement in New York City, one of the world's first visiting nurse associations.

Wald cycle (wäld) [George Wald, U.S. American biochemist (Nobel Laureate), 1906–1997] The transformations involved in the breakdown or resynthesis of rhodopsin.

Waldenström's disease (väl'dën-strēmz)

- [Johann Henning Waldenström, Swedish surgeon, b. 1877] Osteochondritis deformans juvenilis. SEE: *Waldenström's macroglobulinemia*.
- Waldeyer's gland** (völ'dī-ērzh) [Wilhelm von Waldeyer, Ger. anatomist, 1836–1921] A sweat gland of the eyelids; usually found most prominently in the lower lid margin.
- Waldeyer's ring** Lymphoid ring.
- wale** A welt; a raised ridge on the skin or on the epithelial lining of an organ.
- walk** **1.** A method of locomotion of upright bipeds such as humans. **2.** The particular way an individual moves. SEE: *gait*.
- walker** A device used to assist a person in walking, esp. a person prone to falling. It consists of a stable platform made of lightweight tubing that is at a height that permits it to be grasped by the hands and used as support while taking a step. The walker is then moved forward and another step is taken. SEE: *crutch*.
- walking** [AS. *wealcan*, to roll] The act of moving on foot; advancing by steps.
impaired w. Limitation of independent movement within the environment on foot. SEE: *locomotion*; *Nursing Diagnoses Appendix*.
- walking system** A complex device that enables patients with spinal injuries resulting in paralysis of the legs to walk. The device uses computer-controlled electrical stimulation to muscles so that walking may be accomplished. Each of these devices is made esp. for each patient, and their use is experimental.
- walking wounded** In military medicine, an ambulatory case.
- Walk Test** A group of performance-based tests that measure the distance a patient walks in a defined time, e.g., 2 min, 6 min, and 12 min. Walk tests measure the functional level of patients suffering from a wide range of cardiac, respiratory, neurological, and musculoskeletal conditions.
- wall** [AS. *weall*] The limiting or surrounding substance or material of a vessel or cavity such as an artery, vein, chest, or bladder. In dentistry, it may refer to specific boundaries of a cavity preparation or its location within the tooth, for example, cavity walls: buccal, lingual, mesial, distal, pulpal, coronal, axial, cervical, facial, incisal, gingival, or enamel.
cell w. A wall made of cellulose and other materials that encloses a plant cell in a rigid framework. Plant cells have both cell membranes and cell walls. Plant cell walls cannot be digested by humans. SEE: *cellulose*.
- Wallenberg's syndrome** (vahl'ën-bérgzh) [Adolf Wallenberg, Ger. physician, 1862–1949] A complex of symptoms resulting from occlusion of the posterior inferior cerebellar artery or one of its branches supplying the lower portion of the brainstem. Dysphagia, muscular weakness or paralysis, impairment of pain and temperature senses, and cerebellar dysfunction are characteristic.
- wallerian degeneration** (wól-ē-rē-ān) [Augustus Volney Waller, Brit. physician, 1816–1870] The dying back of the axons of nerves after an insult to nerve tissue, such as a toxic exposure, a metabolic change, trauma, or deprivation of blood supply. The myelin surrounding the axon deteriorates, and the ability of the axon to transmit signals diminishes.
- walleys** (wāl'ī) [ME. *wawil-eghed*] **1.** An eye in which the iris is light-colored or white. **2.** Leukoma or dense opacity of the cornea. **3.** A squint in which both visual axes diverge. SYN: *strabismus*, *divergent*.
- Walsh, Mary B.** A U.S. nurse-educator and author who, with Helen Yura, published the first comprehensive text on nursing process in 1967. SEE: *nursing process*; *Nursing Theory Appendix*.
- wandering** (wān'dér-īng) [AS. *wandrian*] Moving about; not fixed.
- wandering [specify sporadic or continual]** Locomotion (with dementia or brain injury) characterized by its frequency and persistence: course appears to be meandering, aimless, or repetitive; frequently incongruent with boundaries, limits, or obstacles; impaired navigational ability. SEE: *Nursing Diagnosis Appendix*.
- Wangiella** (wāng'gē-él'ä) [NL.] A genus of fungi that live in soil and rotting vegetation and have brown septate hyphae. The only known species in the genus is *W. dermatiditis*. The fungus primarily produces skin infections, although occasionally it can cause severe pneumonias or infections of the eye or brain, esp. in those with immunosuppressive diseases or conditions.
- warble** (wawr'bīl) A fly larva. Fly larvae from the genus *Cuterebra* can infest the skin of humans and other animals, a condition known as myiasis.
- Warburg apparatus** (wār'bürg) [Otto H. Warburg, Ger. biochemist, 1883–1970] A capillary manometer used for determining oxygen consumption and carbon dioxide production of small bits of cellular tissue. It is widely used in metabolism studies.
- ward** [AS. *weard*, watching over] A large room in a hospital for the care of several patients.
accident w. A ward reserved for the care of traumatic injuries.
psychiatric w. A ward in a general hospital for mentally ill patients.
- warfarin potassium** (wawr'fā-rīn pātās'ē-ūm) An anticoagulant drug.
- warfarin resistance syndrome** A rare, autosomal dominant condition in which anomalies in the vitamin K receptor site interfere with or neutralize the effects of warfarin. Families with such anom-

alies have great difficulty achieving anticoagulation with warfarin.

warfarin sodium [name derived from initials of Wisconsin Alumni Research Foundation] An anticoagulant drug.

wart (wort) [AS. *wearte*] A circumscribed cutaneous elevation resulting from hypertrophy of the papillae and epidermis. **SEE: illus.**



COMMON WARTS

common w. *Verruca vulgaris*.

genital w. A wart of the genitalia, caused by strains of human papillomavirus (HPV) some of which are transmitted by sexual contact. In women, venereal warts, also known as condyloma acuminata, may be associated with cancer of the cervix and vulva. An estimated 1 million new cases of genital warts occur each year in the U.S., making genital warts the most common sexually transmitted illness. They commonly occur with other genital infections, and grow rapidly in the presence of heavy perspiration, poor hygiene, or the hormonal changes related to pregnancy. **SYN: venereal wart. SEE: illus.**



GENITAL WARTS ON PENIS

TREATMENT: A variety of therapies, including topically applied chemicals

such as podophyllin (10% to 25% in compound tincture of benzoin), trichloroacetic acid, or dichloroacetic acid usually remove small warts; other treatments include CO₂ laser therapy, cryosurgery, electrocautery, 5-fluorouracil, imiquimod, and recombinant interferon alfa-2a. Nevertheless, there is no completely safe and effective therapy available for genital warts.

PATIENT CARE: A history is obtained for unprotected sexual contact with a partner with known infection, a new partner, or multiple partners. Standard precautions are used to examine the patient, to collect a specimen, or to perform associated procedures. The health care professional inspects the genitalia for warts growing on the moist genital surfaces, such as the subpreputial sac, the urethral meatus, and less commonly, the penile shaft or scrotum in male patients and the vulva and vaginal and cervical wall in female patients. In both sexes, the papillomas may spread to the perineum and perianal area. These warts begin as tiny pink or red swellings and may grow as large as 4 in. (10 cm) and become pedunculated. Multiple warts have a cauliflower-like appearance. The patient usually reports no other symptoms, as the warts are generally painless, but a few complain of itching and pain. Infected lesions become malodorous. Diagnosis usually is made by visual inspection, but darkfield examination of wart cell scrapings may be used to differentiate HPV warts from those associated with second-stage syphilis. Biopsy is indicated if cancer is suspected. The patient is monitored for signs of genital cancer and for infection. A nonthreatening, nonjudgmental atmosphere is provided to encourage the patient to verbalize feelings about perceived changes in sexual behavior and body image. Sexual abstinence or condom use during intercourse is recommended until healing is complete. The patient must inform sexual partners about the risk for genital warts and the need for evaluation. The patient should be tested for human immunodeficiency virus and for other sexually transmitted diseases. Genital warts can recur and the virus can mutate, causing warts of a different strain. The patient should report for weekly treatment until all warts are removed and then schedule a checkup for 3 months after all warts have disappeared. If podophyllin is applied, the patient is taught to remove it with soap and water 4 to 6 hrs after the application. Female patients should have a Papanicolaou test on a schedule recommended by their health care providers.

plantar w. A wart on a pressure-bearing area, esp. the sole of the foot. **SYN: verruca plantaris. SEE: illus.**



PLANTAR WART

seborrheic w. Seborrheic keratosis.
venereal w. Genital wart.

Warthin's tumor (wōr'thins) [Aldred Warthin, U.S. pathologist, 1866–1931] A common benign tumor of the parotid gland. SYN: *papillary cystadenoma lymphomatosum*.

wash (wāsh) [AS. *wacsan*] **1.** The act of cleaning, esp. a part or all of the body. **2.** A medicinal preparation used in cleaning or coating.

eye w. A solution used to rinse the eyes. SYN: *collyrium*.

washout (wāsh'owt') The lowering of the concentration of a substance from a solution, or from the human body, by withholding the substance and allowing it to be lost, metabolized, or excreted.

washout, nitrogen The removal of nitrogen from the body by breathing either 100% oxygen or a combination of oxygen and helium. Used to measure total lung capacity.

wasp [AS. *waesp*] Term sometimes applied to all insects belonging to the suborder Apocrita, order Hymenoptera (except the Formicidae and ants), but more generally restricted to the superfamily Scoliodea, Vespoidea, and Specoidea. Members have the base of the abdomen constricted, and females have a piercing ovipositor, which in many species is modified into a sting. Many are social, living in large colonies. Common representatives are yellow jackets and hornets.

waste (wāst) [L. *vastus*, empty] **1.** Cachexia. **2.** Loss by breaking down of bodily tissue. **3.** Excreted material no longer useful to an organism.

hazardous w. In health care, any tissues; bioproducts such as blood, surgical sponges, needles, infectious materials, human remains; toxic substances; cytotoxic drugs; chemicals; or radioactive isotopes. These materials must be clearly labeled and securely stored before disposal, to prevent them from endangering public health.

solid w. Garbage, rubbish, trash, refuse, or sludge, as well as other discarded materials produced by agricultural, community, industrial, home, medical, mining, or municipal processes. Efforts to limit the environmental impact of solid waste, from the point

of production through recovery processes to disposal and recycling, are known as solid waste management.

waste products Metabolic byproducts that would be harmful if allowed to accumulate, which are removed from the body by elimination. Carbon dioxide is exhaled from the lungs; undigested food and bile pigments are eliminated by the colon. The kidneys form urine and excrete nitrogenous wastes (e.g., urea and creatinine) and excess amounts of minerals (e.g., sodium chloride).

wasting (wāst'ing) [L. *vastare*, to devastate] Enfeebling; causing loss of strength or size; emaciating. SEE: *marasmus*.

watchful waiting A strategy that includes frequent observation of a patient's condition rather than immediate intervention with drugs or surgery.

water (wā'tēr) [AS. *waeter*] H₂O, hydrogen combined with oxygen, forming a tasteless, clear, odorless fluid.

Water freezes at 32°F (0°C) and boils at 212°F (100°C). It is the principal chemical constituent of the body, composing approx. 65% of the body weight of an adult male and 55% of the adult female. It is distributed within the intracellular fluid and outside of the cells in the extracellular fluid. Water is indispensable for metabolic activities within cells, as it is the medium in which chemical reactions usually take place. Outside of cells, it is the principal transporting agent of the body. The following properties of water are important to living organisms: it is almost a universal solvent; it is a medium in which acids, bases, and salts ionize, and the concentrations of these substances (electrolytes) must be and are normally regulated quite precisely by the body; it possesses a high specific heat and has a high latent heat of vaporization, important in regulation and maintenance of a constant body temperature; it possesses a high surface tension; and it is an important reacting agent and essential in all hydrolytic reactions.

Water is the principal constituent of all body fluids (blood, lymph, tissue fluid), secretions (saliva, gastric juice, bile, sweat), and excretory fluid (urine). Intake of water is determined principally by the sense of thirst. Excessive intake may lead to water intoxication; excessive loss to dehydration. Humans can survive for only a short time without water intake. The exact length of survival time varies with ambient temperature, moisture in available food, and amount of physical activity.

bound w. Intracellular water attached to organic molecules. It is not available for metabolic processes.

deionized w. Water that has been passed through a substance that re-

moves cations and anions present as contaminants.

w. diffusion The movement of water into and out of cells (e.g., cells of the central nervous system after a stroke). Decreases in water diffusion are found when brain cells have been deprived of blood and oxygen.

distilled w. Water that has been purified by distillation. It is used in preparing pharmaceuticals.

emergency preparation of safe drinking w. The purification of water when only unclean water is available or when the available drinking water is believed to be contaminated. One of the following methods may be used: 1. Water is strained through a filter and boiled vigorously for 30 min. 2. Three drops of alcoholic solution of iodine are added to each quart (approx. 1 L) of water. The water is then mixed well and left to stand for 30 min before using. 3. Ten drops of 1% chlorine bleach, 2 drops of 4% to 6% chlorine bleach, or 1 drop of 7% to 10% chlorine bleach is added to each quart (liter) of water. The water is then mixed well and left to stand for 30 min. If the water is cloudy to begin with, double the amount of chlorine is used.

When the water is contaminated by *Giardia* organisms, heating to 55°C (131°F) kills the protozoa (method 1). Methods 2 and 3 also kill the cysts, but more time is required. Bacteria and viruses are killed by water kept at 60°C (140°F) for 30 min.

hard w. Water that contains dissolved salts of magnesium or calcium.

heavy w. D₂O; an isotopic variety of water, esp. deuterium oxide, in which hydrogen has been displaced by its isotope, deuterium. Its properties differ from ordinary water in that heavy water has a higher freezing and boiling point and is incapable of supporting life.

w. of hydration Water within the crystalline structure of an ionic compound that can be removed by heating or other means, leaving a pure salt.

w. for injection Water for parenteral use that has been distilled and sterilized.

potable w. Water suitable for drinking. Drinking water should be free of disease-causing organisms and should contain only trace amounts of organic and/or inorganic chemicals.

purified w. Water either free of biological or chemical contaminants or obtained by distillation or deionization.

pyrogen-free w. Water that has been rendered free of fever-producing proteins (bacteria and their metabolic products). SEE: *w. for injection*.

soft w. Water that contains very little, if any, dissolved salts of magnesium or calcium.

waterborne (wă'tēr-börn") Carried in water, esp. drinking water, surface wa-

ter, lakes, rivers, or recreational swimming pools.

waterborne disease Any disease transmitted by consuming or bathing in water. Common disease-causing agents that contaminate water include *Cryptosporidium*, *Cyclospora*, some hepatitis viruses, *Escherichia coli* 0157:H7, and metallic toxins.

water of crystallization The water that is chemically bonded to a compound. SYN: *water of hydration*.

water cure Hydrotherapy.

Waterhouse-Friderichsen syndrome (wăt'ēr-hows-frid'ër-rîk-sën) [Rupert Waterhouse, Brit. physician, 1873–1958; Carl Friderichsen, Danish physician, 1886–1979] Acute adrenal failure due to hemorrhage into the adrenal gland caused by meningococcal infection. SEE: *adrenal gland*; *meningitis*, *acute meningococcal*.

water of hydration Water of crystallization.

watermelon stomach (wă'tēr-měl'in) A colloquial term for the pathological changes in the stomach that occur in patients with progressive systemic sclerosis. The disease affects the stomach by causing vascular ectasia in the antrum.

Water's projection (wăt'ërz) Maxillary sinus radiograph.

waters The common term for the amniotic fluid surrounding the fetus.

watershed A tissue that receives minimal blood flow because of its position at the smallest branches of an artery. This tissue may infarct when blood pressures drop, e.g., when patients are in shock and the distant reaches of small blood vessels do not receive an adequate supply of blood.

water syringe In dentistry, a syringe for delivering water spray to a localized area. The flow, pressure, and temperature are controlled.

watery diarrhea, hypokalemia, hypochlorhydria syndrome ABBR: WDHA. A rare syndrome characterized by the passage of loose stools, a low serum potassium level, and an elevated gastric pH. It is caused by excessive pancreatic secretion of vasoactive intestinal peptide (VIP). SYN: *pancreatic cholera*.

Watson, Margaret Jean Harman (wăt'sôn) A nursing educator, born 1940, who developed the Theory of Human Caring. SEE: *Nursing Theory Appendix*.

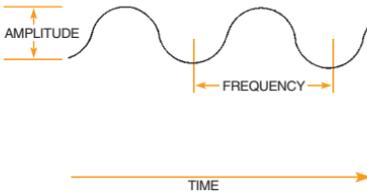
Watson-Schwartz test (wôt'sôn-shwärts) [Cecil J. Watson, U.S. physician, 1901–1983; Samuel Schwartz, U.S. physician, b. 1916] A test used in acute porphyria to differentiate porphobilinogen from urobilinogen.

watt [James Watt, Scottish engineer, 1736–1819] ABBR: w. A unit of electrical power. One watt is the power produced by 1 ampere of current flowing with a force or pressure (i.e., electromotive

force) of 1 volt. In SI units, 1 w equals 1 J/sec. In other units, 1 w equals 1 newton m/sec. This is also equal to 0.7376 ft-lb/sec. SEE: *electromotive force*.

wattage (wõt'ij) The electrical energy produced or consumed by an electrical device, expressed in watts.

wave (wāv) [ME. *wave*] **1.** A disturbance, usually orderly and predictable, observed as a moving ridge with a definable frequency and amplitude. **2.** An undulating or vibrating motion. **3.** An oscillation seen in the recording of an electrocardiogram, electroencephalogram, or other graphic record of physiological activity. SEE: *illus*.



COMPONENTS OF WAVES

a w. **1.** A venous neck wave produced by atrial contraction. **2.** A component of right atrial and pulmonary artery wedge pressure tracings produced by atrial contraction. The a wave just precedes the first heart sound. It is absent in atrial fibrillation and is larger in atrioventricular dissociation and in conditions causing dilation of the right atrium.

afterpotential w. The wave produced after the action potential wave passes along a nerve. On the recording of the electrical activity, it will be either a negative or positive wave smaller than the main spike.

alpha w. An electroencephalographic deflection often generated by cells in the visual cortex of the brain. SEE: *alpha rhythm*.

beta w. An electroencephalographic deflection. Its frequency is between 18 and 30 Hz. SEE: *beta rhythm*.

blast w. A shock wave produced by a blast or explosion. The wave front consists of air under very high pressure that can cause great damage to people, objects, and structures.

brain w. The fluctuation, usually rhythmic, of electrical impulses produced by the brain. SEE: *electroencephalography*.

c w. A component of right atrial and pulmonary capillary wedge pressure waves. It reflects the closing of the tricuspid valve at the beginning of ventricular systole. An abnormal configuration is seen in increased right heart pressure and with abnormalities of the tricuspid valve.

delta w. An abnormal deflection seen on the electrocardiogram in patients

with pre-excitation syndromes, such as Wolff-Parkinson-White syndrome. It occurs at the take-off of the QRS complex.

electromagnetic w. A wave-form produced by simultaneous oscillation of electric and magnetic fields perpendicular to each other. The direction of propagation of the wave is perpendicular to the oscillations. The following waves, in order of increasing frequency and decreasing wavelength, are electromagnetic: radio, television, microwave, infrared, visible light, ultraviolet, x-rays, and gamma rays. SEE: *electromagnetic spectrum* for table.

excitation w. The wave of irritability originating in the sinoatrial node that sweeps over the conducting tissue of the heart and induces contraction of the atria and ventricles.

F w. Flutter waves in atrial fibrillation, detectable on the electrocardiogram at 250 to 350 per minute.

f w. A fibrillatory wave seen as the wavy base line on the electrocardiogram tracing of atrial fibrillation. These waves are caused by multiple ectopic foci in the atria.

J w. An upwardly curving deflection of the J point of the electrocardiogram, found in patients whose body temperature is less than 32°C. This finding is one cardiac effect of hypothermia. The J wave has a particular shape; viewed from above, its surface is convex. SYN: *Osborne wave*.

light w. An electromagnetic wave that stimulates the retina or other optical sensors.

Osborne w. J wave.

P w. SEE: *electrocardiogram*.

pulse w. The pressure wave originated by the systolic discharge of blood into the aorta. It is not due to the passage of the ejected blood but is the result of the impact being transmitted through the arterial walls. The velocity in the aorta may be as high as 500 cm/sec and as low as 0.07 cm/sec in capillaries. The speed of transmission varies with the nature of the arterial wall, increasing with age as the arteries become less resilient. Thus in arteriosclerosis, the velocity is increased over normal.

Q w. A downward or negative wave of an electrocardiogram following the P wave. It is usually not prominent and may be absent without significance. New Q waves are present on the electrocardiogram after patients suffer myocardial infarction. SEE: *electrocardiogram*.

R w. SEE: *electrocardiogram*.

radio w. An electromagnetic wave between the frequencies of 10^{11} and 10^4 Hz.

S w. SEE: *electrocardiogram*.

w. scheduling A method for assigning appointments for patients that brings several patients in to see their health care professionals at the same time (e.g., at the

beginning of each hour instead of every 15 or 20 min during the hour).

shock w. 1. A compression wave produced by a shock such as an earthquake or explosion that is characterized by a sudden change in air pressure, density, and velocity. 2. An electromagnetic or sonic shock wave focused at a specific target (e.g., within the body). 3. A sudden disruption. SEE: *extracorporeal shock wave lithotripsy*; *shock w.*

sound w. A vibration of a vibrating medium that, on stimulating sensory receptors of the cochlea, is capable of giving rise to a sensation of sound. In dry air, the velocity is 1087 ft (331.6 m)/sec at 0°C; in water, it is approx. four times faster than in air.

T w. The portion of the electrical activity of the heart that reflects repolarization of the ventricles. SEE: *electrocardiogram*; *interval*, *Q-T*.

theta w. A brain wave present in the electroencephalogram. It has a frequency of about 4 to 7 Hz.

ultrashort w. An arbitrary designation of radio waves of a wavelength of less than 1 m.

ultrasonic w. A sound wave of greater frequency than 20 kHz. These waves do not produce sound audible to the human ear.

waveform The shape or the representation of a signal, e.g., in cardiology, the shape of the electrical shock used in cardioversion or defibrillation.

biphasic waveform A waveform used by some defibrillators that discharges energy in two phases (first positive, then negative). The shock applied by a biphasic defibrillator uses 30-40% less peak current at the same applied energy level than a monophasic defibrillator and is both less injurious to the heart and more likely to terminate ventricular fibrillation.

damped sinusoidal waveform A defibrillation waveform that rises sharply to a peak voltage and then returns gradually to zero.

monophasic waveform A waveform used by some defibrillators that delivers a single shock of positive energy to the myocardium.

truncated exponential waveform A defibrillation waveform that rises sharply to a peak voltage and then is abruptly cut off and returns to zero.

wavelength (wāv'length) The distance between the beginning and end of a single wave cycle, usually measured from the top of one wave to the top of the next one.

wax [AS. *weax*] 1. A substance obtained from bees (beeswax), plants, or petroleum (paraffin). It is solid at room temperature. In medicine, a purified form, white wax, is used in making ointments and to stop bleeding from bones during surgery. In dentistry, it is used, e.g., to

create fixed appliances or dentures. 2. Any substance with the consistency of beeswax. 3. Earwax. SYN: *cerumen*.

bone w. A polymer used to fill defects in damaged body parts and to control bleeding from injured bone, e.g., in orthopedic surgery. Its use is occasionally associated with side effects, including the formation of foreign-body reactions or the development of infections.

casting w. A mixture of several waxes that can be carved or formed into shapes to be cast in metal.

waxing-up In dentistry, the shaping of wax around the contours of a trial denture or cast restoration.

wax pattern A molded or carved pattern in wax used extensively in dentistry and jewelry-making whereby casts are made using the lost wax technique.

waxy (wäks'ē) [AS. *weax*, wax] Resembling or pert. to wax.

WBC *white blood cell*; *white blood count*.

weak (wēk) [Old Norse *veikr*, flexible]

1. Lacking physical strength or vigor; infirm, esp. as compared with what would be the normal or usual for that individual. 2. Dilute, as in a weak solution, or weak tea. 3. Biologically or chemically active; said, e.g., of acids, bases, electrolytes, muscles, or toxins.

weak dominance In health care management a strategy that provides a more effective but also a more costly solution to a problem than an alternative.

weakness 1. Fatigue; lack of strength; lack of energy. 2. Any structural or functional deficiency.

positional w. The apparent weakness of a muscle when tested in a shortened range of motion. This is a normal phenomenon of a muscle's length-tension curve. To differentiate positional weakness from general muscle weakness, and assess strength accurately, the muscle must be tested throughout its entire range of motion.

PATIENT CARE: The patient should be positioned carefully when testing for muscle force production.

stretch w. The apparent weakness of a muscle resulting from prolonged positioning in a lengthened position, thus shifting the muscle length-tension curve to the right; a form of positional weakness. This phenomenon is observed when the force production of the lengthened muscle is limited when it is tested in a relatively short position.

PATIENT CARE: Care must be taken in positioning when testing for muscle force production. To assess strength accurately, muscles should be tested in their functional or ideal positions or throughout the entire range of motion.

wean (wēn) [AS. *wenian*] 1. To accustom an infant to discontinuation of breast milk by substitution of other nourishment. 2. The gradual discontin-

uation of any form of therapy. SEE: *ventilator support*, *weaning from*.

weaning 1. Any gradual tapering of supportive therapy, e.g., of the ventilatory support provided to a patient in respiratory failure by a mechanical ventilator. **2.** The cessation of lactation or of the breastfeeding of an infant.

PATIENT CARE: When infant weaning is abrupt or sudden, some women may feel guilt about the end of a special relationship with their infants and experience remorse or grief. The nurse can assist by suggesting alternative ways the mother can nurture her infant. The nurse can also assist the mother with engorgement by instructing her to wear a supporting bra and to pump the breasts lightly to relieve some of the pressure but not to empty them. Ice packs and mild analgesics may be taken to relieve discomfort.

weaning readiness screen A means of assessing whether a patient receiving mechanical ventilation is capable of spontaneous, unsupported breathing. A variety of criteria are used. The patient must have (1) objective evidence that the disease requiring mechanical ventilation is improving; (2) a body temperature less than 38.5° C; (3) a hemoglobin level > 8; (4) received no sedative or paralytic drugs during the preceding 24 hours; (5) no evidence of left ventricular failure, cardiac rhythm disturbances, or unstable coronary artery disease; (6) oxygen saturation over 92% while receiving less than 50% inspired oxygen; and (7) no evidence of elevated intracranial pressures.

weanling (wēn'ling) A young child or infant recently changed from breast to formula feeding.

weaponize (wé'pōn-iz) To convert a bacterial culture or some other substance into an agent that can be used to injure or kill.

wear pattern The location of tooth erosion as determined by the characteristics of the facets of the teeth.

web A thin tissue or membrane extending across a space.

esophageal w. A group of thin membranous structures that include mucosal and submucosal coats across the esophagus. They may be congenital or may follow trauma, inflammation, or ulceration of the esophagus. SEE: *Plummer-Vinson syndrome*.

terminal w. A microscopic weblike network that is beneath the microvilli of intestinal absorption cells, and beneath the stereocilia of the hair cells of the inner ear.

web-based (wēb'bāst') Founded on, or depending on the Internet. Said, for example, of certain forms of education and knowledge dissemination.

webbed [AS. *webb*, a fabric] Having a membrane or tissue connecting adjacent structures, as the toes of a duck's feet.

Weber-Christian disease (wēb'ēr-

kris'chēn) [Fredrick Parkes Weber, Brit. physician, 1863–1962; Henry A. Christian, U.S. physician, 1876–1951] Relapsing, febrile, nodular, nonsuppurative panniculitis, a generalized disorder of fat metabolism characterized by recurring episodes of fever and the development of crops of subcutaneous fatty nodules.

Weber's gland (vā'bērz) [Moritz I. Weber, Ger. anatomist, 1795–1875] One of the mucous glands of the tongue.

Weber's law (vā'bērz) [Ernst Heinrich Weber, Ger., 1795–1878] The increase in stimulus necessary to produce the smallest perceptible increase in sensation bears a constant ratio to the strength of the stimulus already acting.

Weber's syndrome (wēb'ērz) [Sir Hermann David Weber, Brit. physician, 1823–1918] Paralysis of the oculomotor nerve on one side with contralateral spastic hemiplegia. It is caused by a lesion of the crus cerebri.

Weber test [Friedrich Eugen Weber, Ger. otologist, 1823–1891] A test for unilateral deafness. A vibrating tuning fork held against the midline of the top of the head is perceived as being so located by those with equal hearing ability in the ears; to persons with unilateral conductive-type deafness, the sound will be perceived as being more pronounced on the diseased side; in persons with unilateral nerve-type deafness, the sound will be perceived as being louder in the good ear. SEE: *hearing*.

Wechsler Adult Intelligence Scale (wēks'lēr) [David Wechsler, Romanian-American psychologist, 1896–1981] ABBR: WAIS. A commonly used intelligence test, designed to assess cognitive function in individuals over the age of 16. It consists of seven verbal and seven nonverbal (performance) subsections. Among other cognitive functions, it assesses vocabulary, verbal comprehension, verbal reasoning, short-term memory, arithmetic skills, problem solving, visual perception, logic, and visual-motor coordination.

Wechsler Intelligence Scale for Children (wēks'lēr) [David Wechsler, Romanian-American psychologist, 1896–1981] ABBR: WISC. A widely used intelligence test for children aged 5 to 16. The test is often used by professional testers or licensed psychologists to diagnose learning disabilities. It consists of two scales: one assesses language skills; the other, visual and motor skills.

wedge 1. A solid object with a broad base and two sides arising from the base to intersect each other and to form an acute angle opposite the base. **2.** In radiography, a filter placed in the primary x-ray beam to vary the intensity.

step w. A device consisting of increasing thicknesses of absorber

through which radiographs are taken to determine the amounts of radiation reaching the film.

wedging 1. Suffocation that results from compression of the chest between two firm surfaces. It is an occasional cause of sudden infant death syndrome, e.g., when an infant becomes lodged between a sleeping partner and a wall or mattress. It can also occur in adults, e.g., when they are trapped in collapsing buildings or between massive structures. **2.** The squeezing or entrapment of any anatomical structure between two others. **3.** The obstruction of blood flow through a vessel by a catheter placed into its lumen.

WEE *western equine encephalomyelitis.*

WeeFIM The Functional Independence Measure adapted for children aged 6 months to 7 years. SEE: *Functional Independence Measure.*

weeping [AS. *wepan*, to lament] **1.** Shedding tears. **2.** Moist, dripping.

bloody w. Hemorrhage from the conjunctiva.

weeverfish (wē'vēr-fish") [O.Fr. *wivre*, serpent + "] Any of several species of poisonous, bottom-dwelling fish of shallow salt waters, with dorsal and opercular spines that are used to inject a high molecular weight (100 kD) toxin into skin and soft tissue.

Wegener's granulomatosis, Wegener's syndrome (vēg'ē-nērz) [Frederich Wegener, Ger. pathologist, 1843–1917] A systemic necrotizing vasculitis marked by pneumonitis and glomerulonephritis; small and medium-sized blood vessels throughout the body may be affected. The average age of onset is 40, and the disease affects men more often than women.

ETIOLOGY: The precise etiology is unknown. Autoantibodies have been identified in the blood of approx. 90% of patients. Granulomas may be present in the lung, upper respiratory tract, and small arteries and veins. Localized or diffuse inflammatory patches are seen in the glomerular capillaries of the kidney.

SYMPTOMS: Chronic pneumonitis and glomerulonephritis are the most prominent signs; ulcerations of the nasopharyngeal mucosa also are common. Other signs and symptoms include muscle and joint pain, skin rashes, fever, and neuropathy.

TREATMENT: Suppressive immunotherapeutic drugs such as cyclophosphamide and corticosteroids are used to control the disease. Trimethoprim-sulfamethoxazole may prevent relapses. There is a 1-year, 80% mortality rate in untreated patients; when treatment is effective, patients can live normal lifespans. Those with diffuse glomerular damage may develop chronic renal failure. SEE: *granuloma.*

Weigert's law (vī'gërts) [Carl Weigert,

Ger. pathologist, 1845–1904] An observation stating that loss or destruction of tissue results in an excess of new tissue during repair.

weighing, underwater Hydrodensitometry.

weight (wät) [AS. *gewiht*] The gravitational force exerted on an object, usually by the earth. The unit of weight is the newton; 1 newton equals 0.225 lb. The difference between weight and mass is that the weight of an object varies with the force of gravity, but the mass remains the same. For example, an object weighs less on the moon than on earth because the force of gravity is less on the moon; but the object's mass is the same in both places. SEE: *mass* (3).

Many diseases cause alterations of body weight (BW), for example, BW decreases in Addison's disease, AIDS, cancer, chronic diarrhea, chronic infections, untreated type I diabetes mellitus, anorexia, lactation when prolonged, marasmus, obstruction of the pylorus or thoracic duct, starvation, tuberculosis, and peptic ulcer.

Normal weight depends on the frame of the individual. SEE: *table.*

apothecaries' w. SEE: *apothecaries' weights and measures.*

atomic w. ABBR: at. wt. The weight of an atom of an element compared with that of $\frac{1}{12}$ the weight of carbon-12.

avoirdupois w. SEE: *avoirdupois measure.*

birth w. The weight of the newborn. Normal weight of the newborn is between 5.5 lb (2.5 kg) and 10 lb (4.5 kg) and is directly related to the gestational age at which the infant was born. Birth weight is an important index of maturation and chance for survival. Weight of less than 2.5 kg is associated with an increased chance of death in the perinatal period. Medical advances have increased the chance of survival of newborns of 2.0 kg or more. SEE: *large for gestational age; small for gestational age.*

w. cycling Rapid increases and decreases in body weight. SEE: *yo-yo diet.*

equivalent w. An obsolete term for the weight of a chemical element that is equivalent to and will replace a hydrogen atom (1.008 g) in a chemical reaction.

ideal body w. ABBR: IBW. The number of pounds or kilograms a person should weigh, based on height and frame, to achieve and maintain optimal health. Several tables, such as the Metropolitan Life Height and Weight Table, show ideal body weights for men and women of varying heights. These references may be used to help set goals for patients who are underweight or overweight. SEE: *weight* for table.

w. loss A measurable decline in body weight (BW) either intentionally, or as a result of malnutrition or illness. It is

**1983 Metropolitan Height and Weight Tables for Men and Women
According to Frame, Ages 25 to 59**

Men					Women				
Height (in shoes)*		Weight in Pounds (in indoor clothing)†			Height (in shoes)*		Weight in Pounds (in indoor clothing)†		
Ft.	In.	Small Frame	Medium Frame	Large Frame	Ft.	In.	Small Frame	Medium Frame	Large Frame
5	2	128-134	131-141	138-150	4	10	102-111	109-121	118-131
5	3	130-136	133-143	140-153	4	11	103-113	111-123	120-134
5	4	132-138	135-145	142-156	5	0	104-115	113-126	122-137
5	5	134-140	137-148	144-160	5	1	106-118	115-129	125-140
5	6	136-142	139-151	146-164	5	2	108-121	118-132	128-143
5	7	138-145	142-154	149-168	5	3	111-124	121-135	131-147
5	8	140-148	145-157	152-172	5	4	114-127	124-138	134-151
5	9	142-151	148-160	155-176	5	5	117-130	127-141	137-155
5	10	144-154	151-163	158-180	5	6	120-133	130-144	140-159
5	11	146-157	154-166	161-184	5	7	123-136	133-147	143-163
6	0	149-160	157-170	164-188	5	8	126-139	136-150	146-167
6	1	152-164	160-174	168-192	5	9	129-142	139-153	149-170
6	2	155-168	164-178	172-197	5	10	132-145	142-156	152-173
6	3	158-172	167-182	176-202	5	11	135-148	145-159	155-176
6	4	162-176	171-187	181-207	6	0	138-151	148-162	158-179

SOURCE OF BASIC DATA: Build Study, 1979, Society of Actuaries and Association of Life Insurance Medical Directors of America, 1980. Copyright 1983 Metropolitan Life Insurance Company. Reprinted Courtesy of Metropolitan Life Insurance Company, *Statistical Bulletin*. Copyright 1983 Metropolitan Life Insurance Company.

* Shoes with 1-in. heels.

† Indoor clothing weighing 5 lb for men and 3 lb for women.

considered mild when 5% of BW is lost, moderate when 5-10% of BW is lost, and high when more than 10% of BW is lost.

PATIENT CARE: Intentional weight loss achieved through dieting and/or exercise has significant health benefits for the overweight or obese. It reduces the risk of many common illnesses, including coronary artery disease, type 2 diabetes mellitus, hyperlipidemia, and hypertension. Unintentional weight loss, esp. of more than 10% of BW may be a marker of serious disease, such as AIDS, cancer, depression, hyperthyroidism, parasitosis, peptic ulceration, or food insecurity (starvation due to an inadequate food supply).

low birth w. ABBR: LBW. Abnormally low weight of a newborn, usually less than 2500 g. A 280-g infant has survived, but with physical and mental impairment.

Identifying mothers at risk for delivery of LBW infants involves careful assessment. Demographic factors include maternal age (adolescence) and non-white race; the highest risk occurs in primiparas under the age of 15. A review of the mother's history often finds low birth weight or prepregnancy weight, previous preterm delivery or spontaneous abortion, delivery of other LBW newborns, or fetal exposure to diethylstilbestrol. Cigarette smoking or abuse of other substances (i.e., alcohol or narcotics) may be

involved. Other factors include height less than 60 in and weight less than 80% of standard weight for height, diabetes with vascular changes, *Chlamydia trachomatis* genital tract infections, and urinary tract infections.

molecular w. ABBR: mol. wt.; MW. The weight of a molecule attained by totaling the atomic weight of its constituent atoms. SEE: *atomic w.*

set point w. The concept that body weight is controlled by the central nervous system and set at a certain value; the value is more or less stable until something occurs to alter it. An example of resetting of the set point occurs in persons with a disturbance of hypothalamic function that interferes with the satiety and feeding centers.

usual body w. ABBR: UBW. Body weight value used to compare a person's current weight with his or her own baseline weight. The UBW may be a more realistic goal than the ideal body weight for some individuals. SEE: *ideal body w.*

w. in volume ABBR: w/v. The amount by weight of a solid substance dissolved in a measured quantity of liquid. Percent w/v expresses the number of grams of an ingredient in 100 mL of solution.

w. in weight ABBR: w/w. The amount by weight of a solid substance dissolved in a known amount (by weight) of liquid. Percent w/w expresses

the number of grams of one ingredient in 100 g of solution.

weighting (wāt'ing) **1.** In radiation therapy that uses two opposing fields, the use of a higher dose for one of the fields. **2.** In statistical or numerical analysis, the placing of emphasis on a variable or the gauging of the impact of a variable among a group of potential influences on an outcome.

weightlessness The condition of not being acted on by the force of gravity. It is present when astronauts travel in areas so distant from the earth, moon, or planets that the force of gravity is virtually absent.

weights and measures SEE: *Weights and Measures Appendix*.

Weil's disease (vīlz) [Adolf Weil, Ger. physician, 1848–1916] Leptospirosis caused by any one of several serotypes of *Leptospira interrogans* such as *L. icterohemorrhagica* in rats, *L. pomona* in swine, or *L. canicola* in dogs. All of these may be pathogenic for humans.

ETIOLOGY: The infection is caused by contact with infected rat urine or feces.

SYMPTOMS: Symptoms include muscular pains, fever, jaundice, and enlargement of the liver and spleen.

TREATMENT: Penicillins or tetracyclines are curative.

PREVENTION: Doxycycline may be used to prevent infection in those exposed to the spirochetes.

Weil-Felix reaction, Weil-Felix test (vī-fā'liks) [Edmund Weil, Austrian bacteriologist, 1880–1922; Arthur Felix, Ger. bacteriologist, 1887–1956] The agglutination of certain *Proteus* organisms caused by the development of *Proteus* antibodies in certain rickettsial diseases.

Welch's bacillus (wēlsh'ēz) [William Henry Welch, U.S. pathologist, 1850–1934] *Clostridium perfringens*, the causative organism of gas gangrene. SEE: *gangrene, gas*.

weld (wēld) [variant of *well*, to boil] To fuse or join two objects with heat.

well-being committee (wēl'bē'ing) An administrative body convened by a health care facility to review instances of inappropriate behavior by staff. The committee may also assist in the rehabilitation of impaired practitioners.

Wellbutrin SR (wēl'bū-trin") SEE: *bupropion*.

Wellens's syndrome (wēl'ēns) [Hein J.J. Wellens, contemporary cardiologist from the Netherlands] The electrocardiographic (ECG) signs of impending occlusion of the left main or left anterior descending coronary artery. ECG shows an inverted symmetrical T wave with little or no associated change of the ST segment or R wave. Inversion appears principally in the V leads. The finding identifies patients who are at risk for an extensive myocardial infarction.

wellness Good health, as well as its appreciation and enjoyment. Wellness is more than a lack of disease symptoms; it is a state of mental and physical balance and fitness. SYN: *subjective well-being*.

Wells syndrome Eosinophilic cellulitis.

welt [ME. *welte*] An elevation on the skin produced by a lash, blow, or allergic stimulus. The skin is unbroken and the mark is reversible.

wen (wēn) [AS.] A cyst resulting from the retention of secretion in a sebaceous gland. One or more rounded or oval elevations, varying in size from a few millimeters to about 10 cm, appear slowly on the scalp, face, or back. They are painless, rather soft, and contain a yellow-white caseous mass. The sac and contents should be carefully dissected to prevent its recurrence. SYN: *sebaceous cyst; steatoma*. SEE: *Fordyce's disease*.

Wenckebach's period, Wenckebach's phenomenon (vēn'kē-bāks) [Karel F. Wenckebach, Dutch-born Aust. internist, 1864–1940] A form of incomplete heart block in which, as detected by electrocardiography, there is progressive lengthening of the P-R interval until there is no ventricular response; and then the cycle of increasing P-R intervals begins again.

Werdnig-Hoffmann disease (vērd'nīg-hōf'mān) [Guido Werdnig, Austrian neurologist, 1844–1919; Johann Hoffmann, Ger. neurologist, 1857–1919] Spinal muscular atrophy.

Werdnig-Hoffmann paralysis Infantile muscular atrophy, considered by some to be identical with amyotonia congenita.

Werdnig-Hoffmann syndrome Werdnig-Hoffmann paralysis.

Werlhof's disease (vērl'hōfs) [Paul G. Werlhof, Ger. physician, 1699–1767] Idiopathic thrombocytopenic purpura.

Wermer's syndrome (wēr'mērz) [Paul Wermer, U.S. physician, d. 1975] Multiple endocrine neoplasia.

Werner's syndrome (vēr'nērz) [C. W. O. Werner, Ger. physician, 1879–1936] An autosomal recessive disease in which adults age at an accelerated pace. SEE: *progeria*.

Wernicke's aphasia (vēr'nī-kēz) [Karl Wernicke, Ger. neurologist, 1848–1905] An injury to the Wernicke's area in the temporal lobe of the dominant hemisphere of the brain, resulting in an inability to comprehend the spoken or written word. Visual and auditory pathways are unaffected; however, patients are unable to differentiate between words or interpret their meaning. Although patients speak fluently, they are unable to function socially because their ability to communicate effectively is impaired by a disordered speech pattern called paraphasia (i.e., inserting inappropriate syllables into words or substituting one word for another). They also

- may be unable to repeat spoken words. If the condition is due to a stroke, the aphasia may improve with time. The disorder is often caused by impairment of blood flow through the lower division of the left middle cerebral artery. SEE: *speech, paraphasic*.
- Wernicke's center** An area in the dominant hemisphere of the brain that recalls, recognizes, and interprets words and other sounds in the process of using language.
- Wernicke's encephalopathy** Encephalopathy associated with thiamine deficiency; usually associated with chronic alcoholism or other causes of severe malnutrition. SYN: *Wernicke's syndrome*.
- Wernicke's syndrome** Wernicke's encephalopathy.
- Western blot test** A technique for analyzing protein antigens. Initially, the antigens are separated by electrophoresis on a gel and transferred to a solid membrane by blotting. The membrane is incubated with antibodies, and then the bound antibodies are detected by enzymatic or radioactive methods. This method is used to detect small amounts of antibodies.
- Western Ontario McMaster Osteoarthritis Index** ABBR: WOMAC. A self-administered assessment test of hip or knee pain, disability, and joint stiffness in osteoarthritis patients.
- West Nile virus** SEE: *under virus*.
- Westphal-Edinger nucleus** (vēst'fāl-ēd'ing-ēr) [Karl Westphal, Ger. neurologist, 1833–1890; Ludwig Edinger, Ger. neurologist, 1855–1918] A small group of nerve cells in the rostral portion of the nucleus of the oculomotor nerve. Efferent fibers pass to the ciliary ganglion conveying impulses destined for the intrinsic muscles of the eye.
- West's syndrome, West syndrome** (vēsts) [W. J. West, Brit. physician, 1794–1848] A form of epilepsy occurring in the first 12 months of life and characterized by myoclonic jerking, EEG hypsarrhythmia, and abnormal brain and behavioral development. It often results from an underlying lesion in the brain (e.g., as in tuberous sclerosis). Most children who survive to the age of 5 have less than normal intelligence, and many have persisting seizures.
- wet** (wēt) [AS. *waet*] Soaked with moisture, usually water.
- wet brain** An increased amount of cerebrospinal fluid with edema of the meninges; may be associated with alcoholism.
- wet cup** In traditional medicine, a cupping glass that is placed on the skin after the skin injured. It is purported to draw toxins from the body.
- wet dream** Nocturnal emission.
- wet nurse** A woman who breastfeeds another's child.
- wet nurse phenomenon** The production of milk in response to repeated stimulation of the nipples in unpregnant women who have previously been pregnant.
- wet pack** A form of bath given by wrapping a patient in hot or cold wet sheets, covered with a blanket, used in the distant past esp. to reduce fever.
- Wetzel grid** (wēt'sēl) [Norman C. Wetzel, U.S. pediatrician, b. 1897] A graph for use in evaluating growth and development in children aged 5 to 18 years.
- Weyers acrofacial dysostosis** (wī'ērzh) An autosomal dominant syndrome characterized by short stature and dental anomalies, nail dystrophy, and polydactyly. Some geneticists consider it a variant of Ellis-van Creveld syndrome.
- Wharton's jelly** The gelatinous intercellular material of the umbilical cord; it consists of collagen, mucin, and hyaluronic acid. It is rich in hyaluronic acid, and in primitive stem cells. SYN: *umbilical cord matrix*.
- wheel** (hwēl) [AS. *hwele*] A more or less round and temporary elevation of the skin, white in the center with a pale-red periphery, accompanied by itching. It is seen in urticaria, insect bites, anaphylaxis, and angioneurotic edema. SYN: *pomphus*.
- wheel** (hwēl) [ME. *wale*, a stripe] An elongated mark or ridge. Such a ridge is produced by intradermal injection.
- wheel and flare reaction** The response within 10 to 15 min to an antigen injected into the skin. The injected skin elevates and blanches, and becomes surrounded by a red rim of inflamed tissue.
- wheat** (hwēt) [AS. *hwaete*] Any of various cereal grasses, widely cultivated for its edible grain used in making flour. Wheat preparations and pastas include macaroni, vermicelli, and noodles, which are made from flour and water, molded, dried, and slightly baked. They are easy to digest.
- STRUCTURE: Wheat is composed of the husk or outer coat, which is removed before grinding; bran coats, which are removed in making white flour and contain the mineral substances; gluten, which contains the fat and protein; and starch, the center of the kernel. Refined wheat products do not include the bran and germ, which contain B complex vitamins, phosphorus, and iron.
- Individuals who are gluten intolerant (e.g., persons with celiac sprue) cannot digest the protein gluten found in wheat.
- wheat germ** The embryonic portion of of the wheat seed or kernel. It contains vitamin E, thiamine, riboflavin, and other micronutrients.
- wheat grass** A chlorophyll-rich grass whose extracted juice is promoted as a treatment for anemia, ulcerative colitis, and other ailments.
- Wheatstone bridge** (hwēt'stōn") [Sir

Charles Wheatstone, Brit. scientist and inventor, 1802–1875] An electric circuit with two branches, each containing two resistors. These branches are joined to complete the circuit. If the resistance in three resistors is known, the resistance of the fourth, unknown, one can be calculated.

wheel A disk attached through its middle to an axle that rotates. In dentistry, small wheels are attached to a handpiece or lathe, and used for polishing and shaping teeth, restorations, and appliances.

carborundum w. A cutting wheel containing silicon carbide, in variable grit sizes.

diamond w. In dentistry, a wheel that contains diamond powder or chips.

polishing w. In dentistry, a wheel made of soft material suitable for polishing teeth or restorations.

wheelchair A type of mobility device for personal transport. Traditional wheelchairs have a seating area positioned between two large wheels, with two smaller wheels at the front. These can be self-propelled through handrims or pushed by another person. Advances in wheelchair design have provided alternatives that accommodate obstacles and rough terrain. Lightweight, collapsible models exist, as well as models designed for racing and sports. Powered wheelchairs and scooters, driven by electric motors, can be controlled through electronic switches and enable mobility by persons with muscle weakness or even paralysis.

wheeze (hwēz) [ME. *whesen*] A continuous musical sound heard predominantly during expiration that is caused by narrowing of the lumen of a respiratory passageway. Often noted only by the use of a stethoscope, it occurs in asthma, croup, hay fever, mitral stenosis, and bronchitis. It may result from asthma, tumors, foreign body airway obstructions, bronchial spasm, pulmonary infections, emphysema and other chronic obstructive lung diseases, or pulmonary edema.

wheezing The production of whistling sounds during difficult breathing such as occurs in asthma, coryza, croup, and other respiratory disorders. SEE: *wheeze*.

whhey The watery material separated from the curd of milk that has coagulated.

whiff test A colloquial term for a fishy odor that is released when a vaginal swab is mixed with potassium hydroxide (KOH). A positive test is suggestive of bacterial vaginosis.

whiplash injury An imprecise term for injury to the cervical vertebrae and adjacent soft tissues. It is produced by a sudden jerking or relative backward or forward acceleration of the head with respect to the vertebral column. This type of injury may occur in a vehicle that is suddenly and forcibly struck from the rear.

Whipple's disease (hwīp'ēlz) [George Hoyt Whipple, U.S. pathologist, 1878–1976] An infectious disease with gastrointestinal and systemic features caused by the organism *Tropheryma whippeli*. This rare disease resembles idiopathic steatorrhea. SYN: *intestinal lipodystrophy*.

TREATMENT: Intensive antibiotic therapy with procaine penicillin followed by maintenance therapy with tetracycline yields good results.

whipworm (wīp'wūrm) *Trichuris trichiura*.

whisper (hwīs'pēr) [AS. *hwisprian*]

1. Speech with a low, soft voice; a low, sibilant sound. 2. To utter in a low sound.

cavernous w. Direct transmission of a whisper through a cavity in auscultation.

whispered voice test A bedside estimate of hearing impairment in which the examiner stands 2 ft from one of the patient's ears and whispers a number followed by a letter. An approximate 30 dB hearing loss is suggested by inability to hear paired numbers and letters, esp. if the patient fails to detect several pairs of them. A patient who performs poorly on the test should be referred for formal testing by an audiologist.

whistle (hwīs'ēl) 1. A sound produced by pursing one's lips and blowing. 2. A tubular device driven by wind that produces a loud and usually shrill sound.

white (hwīt) [AS. *hwit*] 1. The achromatic color of maximum lightness that reflects all rays of the spectrum. 2. The color of milk or fresh snow; opposite of black.

white cell Leukocyte.

white-clot syndrome Widespread blood clotting, usually in several veins and arteries at once, that is associated with thrombocytopenia. Caused by an adverse immune reaction to heparin, the condition is often life threatening. SEE: *heparin-induced thrombocytopenia*.

white dot syndrome Any of a group of inflammatory diseases of the choroid and retina that manifest with visual loss. On inspection of the ocular fundus, well-demarcated whitish lesions are seen.

white of egg The albumin of an egg.

white of eye The part of the sclera visible around the iris.

white gangrene Gangrene caused by local impairments of blood flow.

whitehead (hwīt'hēd) A closed comedo containing pale, dried sebum. SEE: *blackhead*; *comedo*.

white leg Phlegmasia alba dolens.

whitepox (hwīt'pōks) Variola minor.

whites Slang for leukorrhea.

white softening The stage of softening of any tissue in which the affected area has become white and anemic.

Whitmore-Jewett staging system

(hwit' mawr-joo' it) A method of staging prostate cancer. The cancer either is confined entirely to the prostate gland or has spread to regional lymph nodes or, in the worse case, has spread to distant tissues such as bones.

whitlow (hwit' lō) [ME. *whitflawe*, white flow] Suppurative inflammation at the end of a finger or toe. It may be deep seated, involving the bone and its periosteum, or superficial, affecting parts of the nail. SYN: *felon*; *panaris*; *paronychia*; *runaround*.

herpetic w. Whitlow due to herpes simplex virus. It is painful and accompanied by lymphadenopathy. Herpetic whitlow occurs commonly in health care workers as a result of exposure to viral shedding from patients with herpetic lesions on the skin.

WHO *World Health Organization*.

whole body counter An instrument that detects the radiation present in the entire body.

whole bowel irrigation SEE: under *irrigation*.

whole grain An entire kernel of grain, consisting of the bran, the endosperm, and the germ.

wholism (hōl' izm) Holism.

wholistic health Holistic medicine.

whoop (hoop) [AS. *hwopan*, to threaten] The sonorous and convulsive inspiratory crow following a paroxysm of whooping cough.

whooping cough Pertussis.

WHO QoL-100 An international measure of quality of life developed by the World Health Organization based on assessments of physical and psychological well-being, level of independent living, social relationships, and environmental quality.

whorl (hwūr) [ME. *whorle*] 1. A spiral arrangement of cardiac muscle fibers. SYN: *vortex*. 2. A type of fingerprint in which the central papillary ridges turn through at least one complete circle. SEE: *fingerprint* for illus.

WIC *Special Supplementary Food Program for Women, Infants, and Children*.

wick (wīk) Any material that absorbs liquids. Wicks are used in wounds and cavities to drain accumulated fluids.

Wickham's striae (wī' kāmz strē' ā) [L. F. Wickham, Fr. dermatologist, 1861–1913] Lines that are demonstrable on the buccal mucosa in patients with lichen planus.

Widal's reaction, Widal's test (vē-dāl' z) [Georges Fernand Isidore Widal, Fr. physician, 1862–1929] An agglutination test for typhoid fever.

wig A covering for the head to simulate hair if the individual is bald or partially bald. Wigs may be made of hair or synthetic fibers such as acrylic. Wigs are esp. beneficial for use by patients who

have lost their hair due to exposure to certain types of cytotoxic agents used in cancer chemotherapy.

wild (wild) [ME. *wilde*] Occurring in nature.

wild cherry The dried bark of *Prunus serotina*, used principally in the form of syrup as a flavored vehicle for cough medicine.

will [AS.] 1. The mental faculty used in choosing or deciding on an act or thought. 2. The power of controlling one's actions or emotions.

Williamsia (wīl-yām' zē-ā) A genus of mycolic acid containing actinomycetes. Most members of the genus are thought to be nonpathogenic bacteria found in a variety of natural environments. They have rarely been identified in culture specimens as a cause of human disease.

Williams syndrome (wīl'yīnz) [J.C.P. Williams, New Zealand physician, 20th century] ABBR: WS. A rare congenital disorder caused by a deletion of part of chromosome 7 characterized by impaired growth, heart disease, hypercalcemia, mental retardation, sensitivity to loud sounds, and "elfin" facial features, among other anomalies. Some children with WS are described as excessively sociable, hyperactive, and musically talented, but these behavioral markers are not universally present.

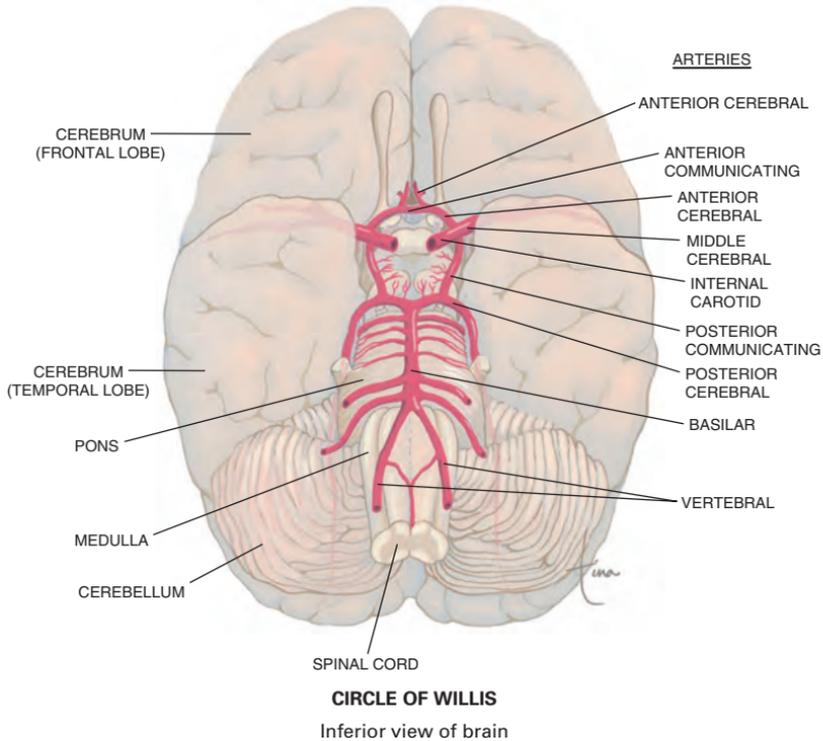
Willis, Thomas (wīl' is) British anatomist, 1621–1675.

circle of W. An arterial anastomosis that encircles the optic chiasm and hypophysis, from which the principal arteries supplying the brain are derived. It receives blood from the two internal carotid arteries and the basilar artery formed by union of the two vertebral arteries. SEE: *illus*.

Willis' cord One of the cords crossing the superior longitudinal sinus transversely.

Wilms' tumor (wīlmz) [Max Wilms, Ger. surgeon, 1867–1918] A rapidly developing tumor of the kidney that usually occurs in children. It is the most common renal tumor of childhood. It is associated with chromosomal deletions, esp. from chromosomes 11 and 16. In the past, the mortality from this type of cancer was extremely high; however, newer approaches to therapy have been very effective in controlling the tumor in about 90% of patients. SYN: *embryonal carcinosarcoma*; *nephroblastoma*. SEE: *Nursing Diagnoses Appendix*.

Wilson's disease (wīl' sūnz) [Samuel Alexander Kinnier Wilson, Brit. internist, 1877–1937] A hereditary syndrome transmitted as an autosomal recessive trait in which a decrease of ceruloplasmin permits accumulation of copper in various organs (brain, liver, kidney, and cornea) associated with increased intestinal absorption of copper. A pigmented



ring (Kayser-Fleischer ring) at the outer margin of the cornea is pathognomonic. This syndrome is characterized by degenerative changes in the brain, cirrhosis of the liver, hemolysis, splenomegaly, tremor, muscular rigidity, involuntary movements, spastic contractures, psychic disturbances, dysphagia, and progressive weakness and emaciation. SYN: *hepatolenticular degeneration*; *Westphal-Strümpell pseudosclerosis*.

TREATMENT: The untreated disease is fatal. The goal is to prevent further copper accumulation in tissues by avoiding foods high in copper such as organ meats, shellfish, nuts, dried legumes, chocolate, and whole cereals. Reduction of the copper in the tissues is achieved by giving the copper binder, D-penicillamine, orally until the serum copper level returns to normal. Carefully controlled doses of this therapy will probably be required for the patient's entire lifetime. Blood cell counts and hemoglobin should be monitored every 2 weeks during the first 6 weeks of treatment. Nonsteroidal anti-inflammatory drugs or systemic corticosteroids may help to relieve symptoms.



The copper binder, D-penicillamine, may cause pyridoxine and iron deficiency.

Wilson-Mikity syndrome (wīl'sīn-mīk'ī-tē) [Miriam G. Wilson, U.S. pediatrician, b. 1922; Victor G. Mikity, U.S. radiologist, b. 1919] A so-called pulmonary dysmaturity syndrome seen in premature infants. The symptoms are insidious onset of dyspnea, tachypnea, and cyanosis in the first month of life. Radiographs of the lungs reveal evidence of emphysema that develops into multicysts. Therapy is directed at the pulmonary insufficiency and cardiac failure. The death rate is about 25%.

windburn Erythema and irritation of the skin caused by exposure to wind. Simultaneous exposure to the sun, moisture, wind, and cold may cause a severe dermatitis.

windchill The cooling effect wind has on exposed human skin. The effect is intensified if the skin is moist or wet.

windchill factor Loss of heat from exposure of skin to wind. Heat loss is proportional to the speed of the wind. Thus, skin exposed to a wind velocity of 20

mph (32 km/hr) when the temperature is 0°F (-17.8°C) is cooled at the same rate as in still air at -46°F (-43.3°C). Similarly, when the temperature is 20°F (-6.7°C) and the wind is 10, 20, or 35 mph (16.1, 32.2, or 56.3 km/hr), the equivalent skin temperature is -4°, -18°, or -28°F (-20°, -27.8°, or -33.3°C), respectively.

The windchill factor is calculated for dry skin; skin that is wet from any cause and exposed to wind loses heat at a much higher rate. Wind blowing over wet skin can cause frostbite, even on a comfortably warm day as judged by the thermometer.

windigo, witigo (wīn'dī-gō', wī'tī-gō') [Ojibwa, Cree] A culture-bound illness, found only in indigenous cultures of Northern Canada, in which people practice cannibalism believing they have been possessed by malevolent spirits. The disease is considered by Western psychiatrists to be a form of depression accompanied by agitation.

window [Old Norse *vindauga*] **1.** An aperture for the admission of light or air or both. **2.** A small aperture into a cavity, esp. that of the inner ear. SYN: *fenestra*.

aortic w. In radiology, in a left anterior oblique or lateral view of the chest, a clear area bounded by the aortic arch, the bifurcation of the trachea, and the pericardial border.

beryllium w. The part of a radiographic tube through which the x-ray photons pass to the outside.

cochlear w. Round w.

w. level ABBR: WL. In digital imaging, including computed tomography, the center of the range of gray scale in the image.

oval w. The opening from the middle ear cavity to the inner ear, over which the plate of the stapes fits; it transmits vibrations for hearing.

pericardial w. A surgically constructed drainage portal through the pericardium into the peritoneum, used for the relief of pericardial effusions or tamponade.

radiation w. A translucent lead glass window in a radiographic control booth.

radiographic w. A thinner area on the glass envelope of an x-ray tube from which x-rays are emitted toward the patient.

round w. A membrane-covered opening below the oval window. Vibrations in the inner ear cause the membrane to bulge outward, decreasing the pressure in the cochlea and preventing damage to the hair cells. SYN: *cochlear window*.

vestibular w. Oval window.

w. width ABBR: WW. In digital imaging, the number of shades of gray in an image.

windowing Cutting a hole in a structure,

such as a plaster cast or the pericardium, to relieve pressure, permit drainage, or allow access to an underlying structure.

windpipe (wīnd'pīp) Trachea.

wine (wīn) [L. *vinum*, wine] **1.** Fermented juice of any fruit, usually made from grapes and containing 10% to 15% alcohol. Taken in moderation (1 or 2 glasses a night) it is part of the Mediterranean diet.

red w. An alcoholic beverage made from pressed grapes, which contains polyphenolic antioxidants. Consumption of red wine, not in excess of 1 to 2 glasses per day, is associated with reduced risk of coronary artery disease.

wine sore Slang term for a superficial infected area of the skin seen in alcoholics with poor personal hygiene; erroneously thought to be due to specific action of the wine.

wing [Old Danish *wingae*] A structure resembling the wing of a bird. SEE: *ala*.

wink [AS. *wincian*] The brief, voluntary closure of one eye. In hemiplegia, the patient may not be able to blink or close the eye on the paralyzed side without simultaneously closing the other eye. This is called *Reviviod sign* or *orbicularis sign*. SEE: *blink*; *Marcus Gunn syndrome*.

winking Wink.

jaw w. SEE: *jaw winking*.

Winslow, foramen of (wīnz'lō) [Jacob Benignus Winslow, Danish-born Fr. anatomist, 1669–1760] Epiploic foramen.

wintergreen oil Methyl salicylate. This colorless, yellowish, or reddish liquid has a characteristic taste and odor. It is used as a flavoring substance and as a counterirritant applied topically in the form of salves, lotions, and ointments.

winter itch A mild form of eczematous dermatitis of the lower legs of elderly persons during dry periods of the year. The skin contains fine cracks and there is no erythema. The skin should be rehydrated with a cream or emulsion of water in oil. SYN: *asteatotic eczema*; *pruritus hiemalis*.

wire (wīr) **1.** Metal drawn out into threads of varying thickness. **2.** To join fracture fragments together by use of wire.

arch w. A cable, usually made of metal, that is used to apply tension to the teeth in orthodontics.

guide w. A wire used to enter tight spaces (e.g., obstructed valves or channels) within the body.

Kirschner w. SEE: *Kirschner wire*.

separating w. A brass wire used in dentistry to separate teeth before banding them.

wired Slang for tense and anxious, esp. when the condition is caused by the effect of a psychoactive drug.

wire localization The insertion of a radiographically guided, thin metal wire into a small suspicious lesion to direct the surgeon to the lesion making it easier to biopsy or remove.

wiring (wīr'ing) Fastening bone fragments together with wire.

circumferential w. A method of treating a fractured mandible by passing wires around the bone and a splint in the oral cavity.

continuous loop w. The forming of wire loops on both mandibular and maxillary teeth to provide attachment sites for rubber bands. These are used in treating fractures of the mandible. SYN: *Stout's wiring*.

craniofacial suspension w. Wiring using bones not contiguous with the oral cavity for attachment of wires that lead from those bones to the fractured jaw segments.

Gilmer w. Wiring of single opposed teeth by use of wire passed circumferentially around the two teeth and the ends twisted together. The twisted ends are placed where they will not irritate adjacent soft tissues. This procedure is used to produce intermaxillary fixation.

Ivy loop w. The placement of wire around adjacent teeth to provide an attachment site for rubber bands.

perialveolar w. The use of wires to fix a splint to the mandible. The wires are passed through the alveolar process from the buccal plate to the palate.

pyriform w. Wiring using the nasal bones to stabilize a fracture of the jaw. The wires are passed through the pyriform aperture of the nasal bone and then to the segment.

silver w. Abnormal reflections of light seen on the ophthalmoscopic examination of the retina of persons with long-standing, uncontrolled hypertension.

Stout's w. Continuous loop w.

Wirsung, duct of (vēr'soong) [Johann Georg Wirsung, Ger. physician, 1600–1643] Pancreatic duct.

Wisconsin Card Sorting Test (wīskōn'sin) ABBR: WCST. A neuropsychiatric test in which subjects are asked to group a series of symbols by their form and color. The test and its adaptations are used to assess disorders that affect the frontal lobes of the brain, e.g., schizophrenia.

Wiskott-Aldrich syndrome (vīs'kōt-äl'drich) [Alfred Wiskott, Ger. pediatrician, 1898–1978; Robert A. Aldrich, U.S. pediatrician, 1917–1998] An X-linked immune deficiency syndrome whose hallmarks are decreased resistance to infection, eczema, and thrombocytopenia. The number of T lymphocytes in the blood and lymph nodes declines, blood levels of immunoglobulin M class antibodies are reduced, and

the response to many antigens is inadequate. If bone marrow transplant is unsuccessful, the patients die at a young age from infection.

withdrawal Cessation of administration of a drug, esp. a narcotic or alcohol to which the individual has become either physiologically or psychologically addicted. Withdrawal symptoms vary with the type of drug used. Neonates may exhibit withdrawal symptoms from drugs or alcohol ingested by the mother during pregnancy. SEE: *drug addiction*.

caffeine w. SEE: *caffeine*; *caffeine withdrawal headache*; *coffee*; *tea*.

withdrawal bleeding Uterine bleeding following discontinuation of treatment with cyclic hormone replacement therapy. It is caused by sloughing of the endometrium but is not technically considered menstruation because it is not associated with an ovulatory cycle.

withdrawal syndrome Irritability, autonomic hyperactivity, hallucinations, or other phenomena resulting from the withdrawal of alcohol, stimulants, or some opiates.

opiate perinatal w.s. Intrauterine hyperactivity and increased oxygen consumption associated with opiate withdrawal in infants of addicted mothers. The syndrome places infants at increased risk for meconium aspiration pneumonia and transient tachypnea.

witkop (wīt'kōp) [Afrikaans, white scalp] Matted crusts in the hair producing a scaplike structure; seen in South African natives.

witness A person having knowledge or information about a particular subject or event.

expert w. A qualified person who assists a judge and jury in understanding technical aspects of a lawsuit, such as breaches of the standard of care and damages or injuries sustained. SEE: *table*.

fact w. A person who has knowledge of circumstances surrounding the events of the alleged incident in a complaint or petition for damages. SYN: *material witness*.

material w. Fact w.

Witzel jejunostomy (vīt'zēl) [Friedrich O. Witzel, Ger. surgeon, 1865–1925] A jejunostomy created by inserting a rubber or silicone catheter into the jejunum and bringing it to the skin surface. Medication and feedings can be administered on a long-term basis. SEE: *jejunostomy*.

witzelsucht (vīt'sēl-zookt) A condition produced by frontal lobe lesions characterized by self-amusement from poor jokes and puns. SEE: *moria*.

primary affective w. A peculiar variety of witzelsucht characterized by teutonization of nomenclature.

Wobe-Mugos E A mixture of enzymes,

Ethical Requirements for Expert Witnesses

Requirement	Rationale
Experts should testify only about those aspects of care for which they have direct knowledge, specific educational background, and clinical experience	Limits the likelihood that generalists will provide testimony outside their areas of specialization or expertise
The testimony should be based on a complete review of all the facts of a case	Decreases the chances that the medical record will be misinterpreted as a result of bias or incomplete study
The testimony must be scientifically up-to-date and its conclusions must be verifiable using evidence-based scholarship	Prevents the witness from relying on subjective impressions, ideas, or personal experiences
The payment that the witness receives must not be contingent on securing a victorious outcome at trial	Limits the motivation to alter testimony purely for financial gain

including chymotrypsin and trypsin (obtained from cow and pig pancreas) and papain (from papaya) used as anti-inflammatory and anticancer treatments, esp. in the treatment of multiple myeloma.

Wohlfahrtia (völ-fär'tē-ä) [Peter Wohlfahrtia, Ger. author, 1675–1726] A genus of flies parasitic in animal tissue, belonging to the family Sarcophagidae, order Diptera.

W. magnifica A species found in southeast Europe. The larvae may occur in human and animal wounds.

W. vigil A species found in Canada and the northern United States.

Wolbachia (wöl-bäk'ē-ä) A genus of bacteria that live only inside the cells of host insects. They have been associated with the blindness caused by *Onchocerca volvulus*.

Wolfe's graft (woolfs) A graft using the whole skin thickness.

wolffian body (wool'fē-än) [Kaspar Friedrich Wolff, Ger. anatomist, 1733–1794] Mesonephros. SEE: *embryo*; *parooophoron*; *parovarium*.

wolffian cyst A cyst lying in one of the broad ligaments of the uterus.

wolffian duct The duct in the embryo leading from the mesonephros to the cloaca. From it develop the ductus epididymis, ductus deferens, seminal vesicle, ejaculatory duct, ureter, and pelvis of the kidney. SYN: *mesonephric duct*.

Wolff's law (völfs) [Julius Wolff, Ger. anatomist and surgeon, 1835–1902] Law that states that bones adapt structurally to resist the specific forces acting on them.

Wolff-Parkinson-White syndrome (wölf pär'kīn-sōn-wīt') [Louis Wolff, U.S. cardiologist, 1898–1972; Sir John Parkinson, Brit. physician, 1885–1976; Paul Dudley White, U.S. cardiologist, 1886–1973] ABBR: WPW. A disease manifested by occasional episodes of potentially life-threatening tachycardia, in which there is an abnormal electrical

pathway in the heart connecting the atria to the ventricles.

ETIOLOGY: In some families, the disease is transmitted as an autosomal dominant trait.

DIAGNOSIS: In electrocardiography, the P-R interval is less than 0.12 sec and the QRS complex is widened as a result of an initial electrical deflection, called the delta wave.

TREATMENT: Ablation of the abnormal accessory pathway cures about 92% of patients. SEE: *pre-excitation, ventricular*.

wolfram (wool'främ) Tungsten.

wolfsbane (wölfs'bān) Common name for several species of *Aconitum*, a genus of highly toxic, hardy perennials. Also called *monkshood*. SEE: *aconite*.

Wolhynia fever (völ-hīn'ē-ä) Trench fever.

WOMAC Western Ontario McMaster Osteoarthritis Index.

woman An adult human female.

womb (woom) [AS. *wamb*] Uterus.

Women's Health Initiative ABBR: WHI. A 15-year study of the most common causes of death and disability in postmenopausal women. Website: <http://www.nhlbi.nih.gov/whi/background.htm>.

Wood's rays (wüdz) [Robert Williams Wood, U.S. physicist, 1868–1955] Ultraviolet rays; used to detect fluorescent materials in the skin and hair in certain disease states such as tinea capitis. The terms Wood's light and Wood's lamp have become synonymous with Wood's rays, even though these are misnomers.

woodruff A low-growing, hardy perennial herb (*Galium odoratum* or *Asperula odorata*) used in alternative medicine to treat nervousness, insomnia, and cardiac irregularity. Liver damage has been reported in some patients after long-term use.

wool fat Anhydrous lanolin, a fatty substance obtained from sheep's wool; used as a base for ointments. It can produce

contact dermatitis in susceptible persons.

woolly hair syndrome A rare congenital disorder in which infants are born with wiry or unusually curly hair; sometimes associated with abnormal heart development; sometimes found only on hair that grows on nevi.

woolorter's disease A pulmonary form of anthrax that develops in those who handle wool contaminated with *Bacillus anthracis*. SEE: *anthrax*.

word blindness An inability to understand written or printed words. SYN: *alexia*; *visual aphasia*.

word deafness A form of aphasia in which sounds and words are heard but linguistic comprehension is absent. SYN: *auditory agnosia*; *auditory amnesia*; *auditory aphasia*; *pure word deafness*.

word salad The use of words indiscriminantly and haphazardly, that is, without logical structure or meaning. It is a finding in uncontrolled mania and schizophrenia.

work [Ger. *wirken*] **1.** A force moving a resistance. The amount of work done is the mathematical product of the force in the direction of movement, times the distance the object is moved in that direction. NOTE: If the object is not moved, then no work is done even though energy is expended. The SI unit of work is the joule (J). The dimensionally equivalent newton-meter (N•m) is sometimes used instead to signify work in physics. SEE: *calorie*; *erg*. **2.** The job, occupation, or task one performs as a means of providing a livelihood. **3.** The effort employed to explore interpersonal or psychological issues.

body w. SEE: *body work*.

social w. Provision of social services (in fields such as child welfare, criminal justice, hospital-based medicine, or mental health) and the promotion of social welfare by a professionally trained person. Social work often involves advocacy and aid for individuals who are poor, elderly, homeless, unemployed, or discriminated against in society because of gender, race, or other biases.

workaholic A colloquial term for a person addicted to occupational or productive pursuits who has difficulty relaxing or enjoying familial, social, or leisure activities.

workaround (wŭrk'ä-rownd") A temporary, improvised solution to a problem that may relieve the obstacle but circumvents rather than repairs it.

worker, sex An individual who engages in sexual activities in exchange for payment. SEE: *prostitution*.

workflow The processes involved in completing a job, including such functions as the organization of human or other resources; the design of tasks; the de-

velopment of procedures (and their implementation), followed by feedback, oversight, and quality improvement.

work hardening A series of conditioning exercises that an injured worker performs in a rehabilitation program. These are designed to simulate the functional tasks encountered on the job to which the individual will return.

working memory (wŭrk'ing) The ability to store and use those facts and ideas that are needed to carry out immediate tasks.

working through The combined efforts of a patient and mental health practitioner to understand the basis of behaviors, feelings, symptoms, or thoughts.

work-life balance A harmonious blend of occupational, familial, social, and leisure pursuits.

workout In athletics, a practice or training session.

workup The process of obtaining all of the necessary data for diagnosing and treating a patient. It should be done in an orderly manner so that essential elements will not be overlooked. Included are retrieval of all previous medical and dental records, the patient's family and personal medical history, social and occupational history, physical examination, laboratory studies, x-ray examinations, and indicated diagnostic surgical procedures. The patient's workup is an ongoing process wherein all hospital personnel involved cooperate in attempting to determine the correct diagnosis and effective therapy. SEE: *charting*; *medical record*, *problem-oriented*.

sepsis w. A colloquial term for the evaluation of a patient, esp. a neonate, with a fever, for laboratory evidence of severe infection. Common tests for febrile neonates include a complete blood count; blood cultures, cerebrospinal fluid, urine, and stool samples; and chest x-ray. Most neonates with a fever are given immediate treatment with broad-spectrum antibiotics pending the results of cultures.

World Health Organization ABBR: WHO. The United Nations agency concerned with international health and the eradication of disease.

worm (wŭrm) [AS. *wyrm*] **1.** An elongated invertebrate belonging to one of the following phyla: Platyhelminthes (flatworms); Nematelminthes or Aschelminthes (roundworms or threadworms); Acanthocephala (spinyheaded worms); and Annelida (Annulata) (segmented worms). SYN: *helminth*. **2.** Any small, limbless, creeping animal. **3.** The median portion of the cerebellum. **4.** Any wormlike structure.

bladder w. Cysticercus.

proboscis w. Acanthocephala.

thorny-headed w. Acanthocephala.

wormian bone SEE: *under bone*.

wormwood (wĕrm'wood) A toxic substance, absinthium, obtained from *Artemisia absinthium*. It was used in certain alcoholic beverages (absinthe), but because of its toxicity such use is prohibited in most countries.

worried well Persons who are healthy, but who, because of their anxiety or an imagined illness, frequent medical care facilities seeking reassurance concerning their health.

wound (wound) [AS. *wund*] A break in the continuity of body structures caused by violence, trauma, or surgery to tissues. In treating the nonsurgically created wound, tetanus prophylaxis must be considered. If not previously immunized, the patient should be given tetanus immune globulin.

PATIENT CARE: Successful wound assessment relies on a thorough, organized approach. This assessment includes the wound's location, size, depth, undermining, drainage, wound edges, base, and surrounding tissues. Include an assessment for any redness, swelling, tenderness, and gangrene/necrosis. The assessment includes the patient's vital signs and measures used, which improve the wound healing.

abdominal w. A wound that damages the abdominal wall and intraperitoneal and extraperitoneal organs and tissues. A careful examination (often including peritoneal lavage, ultrasonography, or computed tomographic scanning of the abdomen) is necessary to determine the precise nature of the injury and the proper course of treatment. Superficial injuries may require no more than ordinary local care; immediate laparotomy may be needed, however, when major bleeding or organ damage has occurred. Intravenous fluids, blood components, antibiotics, and tetanus prophylaxis are given when necessary. Major abdominal trauma may be overlooked in comatose or otherwise critically injured patients when there is no obvious abdominal injury. SEE: *abdomen*.

bullet w. A penetrating wound caused by a missile discharged from a firearm. The extent of injury depends on the wound site and the speed and character of the bullet. SEE: *Nursing Diagnostics Appendix; gunshot w.*

TREATMENT: Tetanus booster injection or tetanus immune globulin and antibiotics, if indicated, should be given. An appropriate bandage should be applied. Emergency surgery may be necessary. Complications, including hemorrhage and shock, should be treated.

contused w. A bruise in which the skin is not broken. It may be caused by a blunt instrument. Injury of the tissues under the skin, leaving the skin unbro-

ken, traumatizes the soft tissue. Ruptured blood vessels underneath the skin cause discoloration. If extravasated blood becomes encapsulated, it is termed hematoma; if it is diffuse, ecchymosis. SEE: *ecchymosis; hematoma*.

TREATMENT: Cold compresses, pressure, and rest, along with elevation of the injured area, will help prevent or reduce swelling. When the acute stage is over (within 24 to 48 hr), continued rest, heat, and elevation are prescribed. Aseptic drainage may be indicated.

crushing w. Trauma due to force applied to tissues so they are disrupted or compressed, but with minimal or no frank lacerations. If there is no bleeding, cold should be applied; if the wound is bleeding, application of the dressing should be followed by cold packs until the patient can be given definitive surgical treatment. If the bone is fractured, a splint should be applied.

fishhook w. An injury caused by a fishhook becoming embedded in soft tissue. Deeply embedded fishhooks are difficult to remove. One should push the hook through, then cut off the barb with an instrument, and pull the remainder of the fishhook out by the route of entry. Antitetanus treatment should be given as indicated. Because these injuries often become infected, prophylactic use of a broad-spectrum antibiotic is indicated.

gunshot w. ABBR: GSW. A penetrating injury from a bullet shot from a gun. At very close range, the wound may have gunpowder deposits and the skin burn marks. GSWs can crush, penetrate, stretch, cavitate, or fracture body structures. The severity of the wound may depend on the structures damaged, the velocity and caliber of the bullet, and the underlying health of the victim. SEE: *bullet w.*

nonpenetrating w. A wound in which the surface of the skin remains intact.

open w. A contusion in which the skin is also broken, such as a gunshot, incised, or lacerated wound. SEE: *illus.*

penetrating w. A wound in which the skin is broken and the agent causing the wound enters subcutaneous tissue or a deeply lying structure or cavity.

perforating w. Any wound that has breached the body wall or internal organs. The perforation may be partial or complete.

puncture w. A wound made by a sharp-pointed instrument such as a dagger, ice pick, or needle. A puncture wound usually is collapsed, which provides ideal conditions for infection. The placement of a drain, antitetanus therapy or prophylaxis, and gas gangrene prophylaxis may be required. This will



OPEN WOUND

An open cavity wound

depend on the nature of the instrument that caused the injury.

subcutaneous w. A wound, such as contusion, that is unaccompanied by a break in the skin.

tunnel w. A wound having a small entrance and exit of uniform diameter.

wound ballistics The study of the effects on the body produced by penetrating projectiles.

wound care Any technique that enhances the healing of skin abrasions, blisters, cracks, craters, infections, lacerations, necrosis, and/or ulcers. Wound care involves

1. local care to the skin, with débridement and dressings;
2. careful positioning of the affected body part to avoid excessive pressure on the wound;
3. application of compression or medicated bandages;
4. treatment of edema or lymphedema;
5. treatment of infection;
6. optimization of nutrition and blood glucose levels;
7. the use of supports and cushions; and
8. maximization of blood flow and oxygen.

Website: Association for the Advancement of Wound Care:

www.aawc.org/patientresources.shtml.

wound healing SEE: *healing*; *inflammation*.

W-plasty A technique used in plastic surgery to prevent contractures in straight-line scars. Either side of the wound edge is cut in the form of connected W's, and the edges are sutured together in a zig-

zag fashion. SEE: *tissue expansion*, *soft*; *Z-plasty*.

wrap 1. A covering, esp. one that is wound tightly around an object, as an elastic wrap or a compression wrap. 2. To wind a covering around an object.

compression w. An elastic bandage used to prevent or reduce the formation of edema. The wrap is applied starting distally; it uses overlapping spirals to progress proximally. Greater pressure is applied distally than proximally, creating a compression gradient that encourages venous and lymphatic return. SEE: *illus*.



COMPRESSION WRAP

Wright's stain (rītz) [James H. Wright, U.S. pathologist, 1871–1928] A combination of eosin and methylene blue used in staining blood cells to reveal malarial parasites and to differentiate white blood cells.

wrinkle (rīng'kl) [AS. *gewrinclian*, to wind] 1. A crevice, furrow, or ridge in

the skin. **2.** To make creases or furrows, as in the skin by habitual frowning.

wrinkle test A test of sensibility following complete transection of or damage to peripheral nerves based on the characteristic sympathetic response of skin following extended immersion in water. SEE: *nerve*.

Wrisberg's ganglion (rīs'bürgz) [Heinrich August Wrisberg, Ger. anatomist, 1739–1808] A ganglion of the superficial cardiac plexus, between the aortic arch and the pulmonary artery. Also called *Wrisberg's cardiac ganglion*. SYN: *cardiac ganglion*.

wrist (rīst) [AS] The joint or region between the hand and the forearm. SEE: *hand for illus.*; *skeleton*.

wrist-driven hand orthosis ABBR: WDHO. An orthotic that uses the muscles of the wrist, esp. the extensor muscles, to drive the fingers together into a grasping motion. It can be used by people with paralysis of the hand to improve the ability to hold on to and release objects.

wrist-driven wrist-hand orthosis ABBR: WDWHO. Dynamic splint used for functional grasp by individuals with C6 tetraplegia. SEE: *tenodesis (2)*; *universal cuff*.

wrist drop A condition in which the hand is flexed at the wrist and cannot be extended; may be due to injury of the radial nerve or paralysis of the extensor muscles of the wrist and hand.

wrist unit A component of an upper-extremity prosthesis that attaches the terminal device to the forearm section and provides for pronation or supination.

writing The act of placing characters, letters, or words together for the purpose of communicating ideas.

dextrad w. Writing that progresses from left to right.

mirror w. SEE: *mirror writing*.

writing therapy Writing a journal or diary to explore and record one's feelings and thus to make progress toward desired psychological goals.

written action plan ABBR: WAP. A flexible script that patients may use to guide their own outpatient therapy when they experience deterioration in a chronic health care condition.

PATIENT CARE: WAPs were initially introduced into asthma therapy to guide the use of inhaled and oral steroid use but can be used in other conditions as well.

WAPs typically include: 1. How to recognize signs of worsening illness; 2. treatment protocols; 3. the duration of and how to modify or increase the intensity of treatments; 4. When to seek

additional help from health care professionals.

written treatment agreement A formal contract or plan established by a health care provider and a patient, specifying the manner in which certain forms of care will be delivered. Written treatment agreements are used most often in managing prescriptions for narcotic pain relievers. In that setting they are sometimes referred to colloquially as *drug contracts*.

wrongful birth, wrongful life The idea that conception would have been prevented or pregnancy would have been interrupted if the parents had been adequately informed of the possibility that the mother would give birth to a physically or mentally challenged child.

wryneck (rī'nēk) Torticollis.

wt *weight*.

Wuchereria (voo'kēr-ē'rē-ā) [Otto Wucherer, Ger. physician, 1820–1873] A genus of filarial worms of the class Nematoda, commonly found in the tropics.

W. bancrofti A parasitic worm that is the causative agent of elephantiasis. Adults of the species live in human lymph nodes and ducts. Females give birth to sheathed microfilariae, which remain in internal organs during the day but at night are in circulating blood, where they are sucked up by night-biting mosquitoes, in which they continue their development, becoming infective larvae in about 2 weeks. They are then passed on to humans when the mosquito bites. SYN: *Filaria bancrofti*. SEE: *illus.*



50 μm

WUCHERERIA BANCROFTI

Microfilaria (×400)

W. malayi A species occurring in Southeast Asia and largely responsible for lymphangitis and elephantiasis in that region. It closely resembles *W. bancrofti*.

wuchereriosis (voo'kēr-ē-rī'ā-sīs) Elephantiasis.

w/v *weight in volume*.

w/w *weight in weight*.

Wymox (wī'mōks") SEE: *amoxicillin*.