



U 1. *unit*. 2. Symbol for the element uranium.

²³⁵**U** Isotope of uranium with atomic weight 235.

U-100 *one hundred units of insulin per ml of solution*. A common concentration of commercially available insulins.

UAO *upper airway obstruction*.

ubiquinol (ū-bīk'wī-nōl) Coenzyme QH₂, the reduced form of ubiquinone.

ubiquinone (ū-bīk'wī-nōn) [*ubiquitous* + coenzyme *quinone*] Coenzyme Q, a lipid-soluble quinone present in virtually all cells. It collects reducing equivalents during intracellular respiration and is converted to its reduced form, ubiquinol, while involved in this process. This substance is widely used in Europe and Asia as a health food supplement for congestive heart failure and other disorders, although confirmation of its effectiveness is uncertain.

ubiquitin (ū-bīk'wī-tin) An intracellular protein that helps to destroy misfolded proteins. It is also important in promoting the functions of proteins that make up ribosomes.

UBT *urea breath test*.

UDP *uridine diphosphate*.

Uhthoff's sign (oot'hōfs) [Wilhelm Uhthoff, Ger. ophthalmologist, 1853–1927] The transient decrease in vision, double vision, or nystagmus when body temperature rises; seen in patients with multiple sclerosis.

ulcer (ūl'sēr) [L. *ulcus*, ulcer] A lesion of the skin or mucous membranes marked by inflammation, necrosis, and sloughing of damaged tissues. A wide variety of insults may produce ulcers, including trauma, caustic chemicals, intense heat or cold, arterial or venous stasis, cancers, drugs (e.g., nonsteroidal anti-inflammatory drugs), and infectious agents such as *Herpes simplex* or *Helicobacter pylori*.

amputating u. An ulcer that destroys tissue to the bone by encircling the part.

aphthous u. A lesion of the skin or mucous membranes (e.g., of the oral mucosa, conjunctiva, or genitalia). It is usually less than 0.5 cm in diameter. If it persists for longer than 2 weeks, it should be biopsied to rule out cancer. SYN: *aphthous stomatitis*; *canker sore*.

ETIOLOGY: Aphthous ulcers are found in stomatitis, Behçet's syndrome, Crohn's disease, acquired immunodeficiency syndrome (AIDS), and some cancers.

TREATMENT: For patients with oral ulcers, application of a topical anes-

thetic or a protective paste provides symptomatic relief and makes it possible to eat without pain.

chronic leg u. Any longstanding, slowly healing ulcer of a lower extremity, esp. one caused by occlusive disease of the arteries or veins or by varicose veins.

Curling's u. SEE: *Curling's ulcer*.

Cushing's u. SEE: under *Cushing, Harvey*.

denture u. An ulcer of the oral mucosa caused by irritation from wearing dentures.

PATIENT CARE: To prevent irritation and ulceration of the mucus membranes of the mouth, denture wearers should clean dentures daily and remove them while sleeping. Poorly fitting dentures should be reconstructed or padded by a dentist.

duodenal u. An open sore on the mucosa of the first portion of the duodenum, most often the result of infection with *Helicobacter pylori*. It is the most common form of peptic ulcer. SEE: *peptic ulcer*.

follicular u. A tiny ulcer originating in a lymph follicle and affecting a mucous membrane.

fungus u. 1. An ulcer in which the granulations protrude above the edges of the wound and bleed easily. 2. An ulcer caused by a fungus.

gastric u. An ulcer of the gastric mucosa.

ETIOLOGY: Common causes are nonsteroidal anti-inflammatory drugs, use of alcohol or tobacco, and infection with *Helicobacter pylori*. SEE: *peptic ulcer*.

Hunner's u. Interstitial cystitis.

indolent u. A nearly painless ulcer usually found on the leg, characterized by an indurated, elevated edge and a nongranulating base.

Meleney's u. SEE: under *Meleney*.

peptic u. SEE: *peptic ulcer*.

perforating u. An ulcer that erodes through an organ (e.g., the stomach or duodenum).

phagedenic u. Tropical ulcer.

pressure u. Pressure sore.

rodent u. A basal cell carcinoma that has caused extensive local invasion and tissue destruction, esp. on the face. The usual sites are the outer angle of the eye, near the side and on the tip of the nose, and at the hairline. SYN: *Jacob's ulcer*.

serpiginous u. A creeping ulcer that heals in one part and extends to another.

shield u. A corneal ulcer found in

some patients with vernal conjunctivitis. The ulcer is sometimes associated with corneal plaques that may permanently impair vision.

stercoral u. A rarely occurring ulcer of the colon caused by pressure from impacted feces. Perforation through the walls of the colon may cause peritonitis, sepsis, and, sometimes, death.

stress u. Multiple small, shallow ulcers that form in the mucosa of the stomach or, occasionally, in the duodenum, in response to extreme physiological stressors. Stress ulcers seen in patients with shock, extensive burns, or sepsis are called Curling's ulcers and may be caused by mucosal ischemia secondary to systemic vasoconstriction. Stress ulcers that occur in patients with increased intracranial pressure (Cushing's ulcers) may be caused by increased secretion of gastric acid due to vagus nerve stimulation. SEE: *peptic u.*

traumatic u. An ulcer due to injury of the oral mucosa. Its causes include biting, denture irritation, toothbrush injury, and sharp edges of teeth or restorations.

trophic u. An ulcer caused by the failure to supply nutrients to a part.

tropical u. 1. An indolent ulcer, usually of a lower extremity, that occurs in persons living in hot, humid areas. The cause may or may not be known; it may be caused by a combination of bacterial, environmental, and nutritional factors. SYN: *phagedenic ulcer.* 2. The tropical sore caused by leishmaniasis.

varicose u. An ulcer, esp. of the lower extremity, associated with varicose veins.

venereal u. An ulcer caused by a sexually transmitted disease (i.e., chancere or chancroid).

venous stasis u. A poorly, slowly healing ulcer, usually located on the lower extremity above the medial malleolus. Typically it is edematous, pigmented, and scarred. The skin is extremely fragile and easily injured. In the U.S. about 3.5% of people over 65 have venous stasis ulcers, women are three times more likely than men to be affected. SEE: *illus.*

PATIENT CARE: Assessment should include a detailed medical and surgical history and physical examination. When the lower extremities are examined, characteristic markers of venous ulceration include ankle flare (distension of small veins on the medial aspect of the foot due to chronic venous hypertension); dermatitis (chronic skin dryness with epithelial scaling); pigmentation changes on the skin surface, usually appearing as brown discolorations affecting the medial part of the leg, woody induration of the leg, and varicosities (dilated veins). The health care



VENOUS STASIS ULCER

On lateral malleolus

professional should examine the leg for lesions superior to the medial malleolus and should carefully measure wound size, shape and margins; drainage or exudates; surrounding skin; and pain or tenderness. The patient should be advised to elevate the legs 7 inches (18 cm) above the heart for 2 to 4 hours during the day and at night. Compression devices (e.g., graduated pressure stockings, Unna's boot) are used to help reduce edema, improve venous blood flow, and aid healing. Before applying any compression device or wrap, the health care professional should measure the patient's leg circumference at the wound and the wound size of the ulcer. The wound should be cleansed regularly, and aggressive debridement employed as needed. Wounds with light to moderate drainage benefit from a moisture-retentive dressing (e.g., hydrocolloid, transparent film, some foams), while wounds with moderate to heavy drainage do better with an absorbent dressing (e.g., foams, alginates, special absorptive dressings). Underlying problems (e.g., obesity, deep venous thrombosis, diabetes, cardiovascular disease) must be assessed and managed as part of the wound care protocol.

ulcera (ŭl'sēr-ă) Pl. of *ulcus*.

ulcerate (ŭl'sēr-ăt) [L. *ulcerare*, to form ulcers] To produce or become affected with an ulcer.

ulcerated (ŭl'sēr-ăt'ĕd) Of the nature of an ulcer or affected with one.

ulceration (ŭl'sēr-ăt'shŭn) A suppurative or non-healing lesion on a surface such as skin, cornea, or mucous membrane.

ulcerative (ŭl'sēr-ăt-ĭv) [L. *ulcerare*, to form ulcers] Pert. to or causing ulceration.

ulcerogangrenous (ŭl'sēr-ŏ-găng'grĕ-nŭs) Rel. to an ulcer that contains gangrenous tissue.

ulceromembranous (ŭl'sēr-ŏ-mĕm'brăn-ŭs) [+ *membrana*, membrane] Pert. to ulceration and formation of a fibrous pseudomembrane.

ulcerous (ül'sēr-üs) Pert. to or affected with an ulcer.

ulcus (ül'küš) *pl.* **ulcera** [L.] Ulcer.

ulegryia (ü'lē-jī'rē-ā) [Gr. *oule*, scar, + *gyros*, ring] A condition in which gyri of the cerebral cortex are abnormal due to scar tissue from injuries, usually occurring in early development.

ulerythema (ü-lēr-i-thē'mā) [" + *erythema*, redness] An erythematous disorder with atrophic scar formation.

u. ophryogenes Folliculitis of the eyebrows, characterized by loss of hair and scarring.

ulitis (ü-lī'tis) Gingivitis.

Ulmus fulva (ül'müs fül'vü) [L., lit. "tawny elm"] The scientific name for slippery elm. Also known as *Ulmus rubra*.

ulna (ül'nā) [L., elbow] The larger bone of the forearm, between the wrist and the elbow, on the side opposite that of the thumb. It articulates with the head of the radius and humerus proximally, and with the radius and carpals distally.

ulnad (ül'nād) [" + *ad*, to] In the direction of the ulna.

ulnar (ül'när) [L. *ulna*, elbow] Rel. to the ulna, or to the nerve or artery named from it.

ulnar drift A joint abnormality at the metacarpophalangeal joints, frequently seen in rheumatoid arthritis, resulting from chronic synovitis. In this condition, the long axis of the fingers deviates in an ulnar direction with respect to the metacarpals.

ulnaris (ül'nā'ris) **1.** Ulnar. **2.** Concerning the ulna.

ultimate (ül'tim-it) [L. *ultimus*, last] Final or last.

ulitimbranchial body (ül'tī-mō-brāng'kē-äl) One of two embryonic pharyngeal pouches usually considered as rudimentary fifth pouches. They become separated from the pharynx and incorporated into the thyroid gland, where they give rise to parafollicular cells that secrete calcitonin, a hormone that lowers the blood calcium level.

ultra- [L.] Prefix meaning *beyond*, *excess*.
ultrabrachycephalic (ül'trā-brāk'ī-sē-fäl'ik) [L. *ultra*, beyond, + Gr. *brachys*, short, + *kephale*, head] Having a cephalic index of 90 or more.

ultracentrifugation (ül'trā-sēn-trif'ū-gā'shün) Treatment or preparation of substances by use of the ultracentrifuge. *Analytical* ultracentrifugation is a means of determining molecular mass, structure, and size. *Preparative* ultracentrifugation is a means of purifying mixed solutions of proteins. It separates them based on their densities or their sedimentation coefficients.

ultracentrifuge (ül'trā-sēn'trī-fūj) [" + *centrum*, center, + *fugere*, to flee] A high-speed centrifuge capable of producing centrifugal forces more than

100,000 times gravity; it is used in the study of proteins, viruses, and other substances present in body fluids.

ultradian (ül'trā'dē-än) [" + *dies*, day] Concerning biological rhythms that occur less frequently than every 24 hr.

ultrafilter (ül'trā-fil'tēr) A filter by which colloidal particles may be separated from their dispersion medium or from crystalloids.

ultrafiltration (ül'trā-fil'trā'shün) [" + *filtrum*, a filter] Filtration of a colloidal substance in which the dispersed particles, but not the liquid, are held back.

Ultram Tramadol.

ultramicroscopy (ül'trā-mī-krōš'kō-pē) The use of the ultramicroscope.

ultramicrotome (ül'trā-mī'krō-tōm) A microtome that makes extremely thin slices of tissue.

ultrarapid (ül'trā-rā'pid) [L. *ultra*-, beyond, + *rapidus*, seizing, rapid] Exceptionally fast; said of, e.g., centrifuges, some chemical reactions, and some forms of tissue fixation or freezing.

ultrasonic (ül'trā-sōn'ik) [" + *sonus*, sound] Pert. to sounds of frequencies above approx. 20,000 cycles/sec, which are inaudible to the human ear. SEE: *supersonic*; *ultrasonography*; *ultrasound*.

ultrasonic cleaning The use of ultrasonic energy to sterilize objects, including medical and surgical instruments.

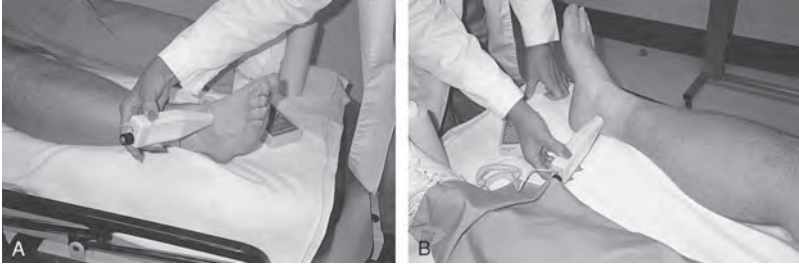
ultrasonic dissector (ül'trā-sōn'ik dīs-ēk'tēr) Harmonic scalpel.

ultrasonics (ül'trā-sōn'iks) The division of acoustics that studies inaudible sounds, i.e., those with frequencies greater than 20,000 cycles/sec (20,000 Hz or 20 kHz). Biological effects may result, depending on the intensity of the beams. Heating effects are produced by beams of low intensity, paralytic effects by those of moderate intensity, and lethal effects by those of high intensity. The lethal action of ultrasonics is primarily the result, either directly or indirectly, of cavitation of tissues. Ultrasonics is used clinically for therapeutic and diagnostic purposes; diagnostic ultrasound uses transducers that emit in the range from 2-15 MHz. In dentistry, instruments producing 29 kHz are used in periodontal surgery, curettage, and root planing. SEE: *ultrasound*.

ultrasonogram (ül'trā-sōn'ō-grām) The image produced by use of ultrasonography.

ultrasonography (ül'trā-sōn'ōg'rā-fē) The use of ultrasound to produce an image or photograph of an organ or tissue. Ultrasonic echoes are recorded as they return from reflecting or refracting tissues of different densities.

arterial duplex u. A diagnostic procedure that helps to identify areas within arteries where blood flow is blocked or reduced. SEE: *LEAS*.



DOPPLER ULTRASONOGRAPHY

Doppler probe used on (A) dorsal pedis and (B) posterior tibial arteries

Doppler u. The shift in frequency produced when an ultrasound wave is echoed from something in motion. The use of the Doppler effect permits measuring the velocity of that which is being studied (e.g., blood flow in a vessel). **SEE: illus.**

gray-scale u. Use of a television scan technique to process the strength of ultrasound echoes with the strongest being registered as white and the weakest as different shades of gray.

pelvic u. Transvaginal ultrasonography.

transvaginal u. Ultrasonographic visualization of the uterus, fallopian tubes, endometrium, and, in pregnant patients, the fetus. The test may be used to diagnose ectopic pregnancy, determine multiple pregnancies, identify ovarian cysts and pelvic cancers, and visualize tubo-ovarian abscesses. To obtain the needed images, the transducer (ultrasound probe) can be placed either on the abdominal wall or within the vagina. **SYN: pelvic ultrasonography.**

ultrasound (ŭl'tră-sound") Inaudible sound in the frequency range of approx. 20,000 to 10 billion (10^9) cycles/sec. Ultrasound has different velocities that differ in density and elasticity from one kind of tissue to the next. This property permits the use of ultrasound in outlining the shape of various tissues and organs in the body. In obstetrics, for example, identifying the size and position of the fetus, placenta, and umbilical cord enables estimation of gestational age, detects some fetal anomalies and fetal death, and facilitates other diagnostic procedures, such as amniocentesis. In physical therapy, the thermal effects of ultrasound are used to treat musculoskeletal injuries by warming tissue, increasing tissue extensibility, and improving local blood flow. Ultrasound is used to facilitate movement of certain medications (e.g., pain relievers) into tissue (phonophoresis). Ultrasound is also used with electric current for muscular stimulation. The diagnostic and therapeutic uses of ultrasound re-

quire special equipment. **SEE: illus phonophoresis; sonographer; ultrasonography.**

A-mode u. A form of diagnostic ultrasonography in which imaging data are represented as echo amplitudes (on the y-axis) and time (on the x-axis), similar to the way electromagnetic waves are represented on an oscilloscope. **SYN: A-mode.**

B-mode u. Brightness mode display: in ultrasonography, the use of dots of differing intensities to represent echoes received from tissues that more strongly or weakly reflect sound waves. **SYN: B-mode (brightness mode) display.**

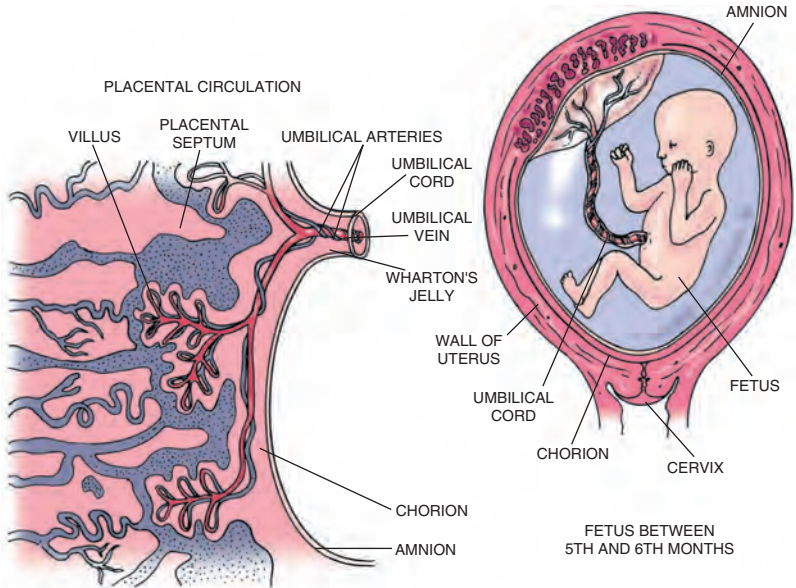
continuous wave Doppler u. Doppler ultrasonography that uses spectral Doppler in a constant series of echoes both originating and being received by the same transducer. It is used to study obstruction to blood flow through vessels.

duplex Doppler u. Doppler ultrasonography that uses a transducer with two functions: pulsed-wave Doppler and B-mode imaging.

endobronchial u. ABBR: EBUS. The use of ultrasonic transducers carried within a bronchoscope to evaluate tissues in or adjacent to the trachea and bronchi. EBUS can be used to identify solid masses to be biopsied. It helps distinguish solid masses, which may be malignant, from blood vessels such as



FETAL ULTRASOUND IMAGE



UMBILICAL CORD

the aorta or pulmonary arteries, which should not be penetrated with a biopsy needle.

endovaginal u. Pelvic ultrasound.

intravascular u. In ultrasonography, a technique for imaging intimal tissue proliferation and blood vessel blockages.

keepsake fetal u. SEE: *keepsake fetal ultrasound*.

M-mode u. Motion mode display: an ultrasonic display mode in which the motion of structures is seen on the vertical axis of the display, used, e.g., to show the movement of the heart's valves and walls during diastole and systole. SYN: *time-motion mode ultrasound*.

pelvic u. Examination of the pelvis with an ultrasonic transducer placed inside the vagina. It is used in assessment of diseases or conditions affecting the cervix, uterus, fallopian tubes, or ovaries. SYN: *endovaginal ultrasound*.

pulsed-wave Doppler u. SEE: *transducer, pulse-echo*.

quantitative u. ABBR: QUS. Measurement of the density of a body tissue (e.g., bone) by determining how rapidly sound travels through the tissue and how different sonic wavelengths are absorbed. QUS is used to diagnose osteopenia and osteoporosis.

real-time u. A sonographic procedure that provides rapid, multiple images of an anatomical structure in the form of motion.

time-motion mode u. M-mode ultrasound.

ultrastructure (ül'trä-strük'chür) The

fine structure of tissues. It is visible only by use of electron microscopy.

ultra-trace elements Any of those elements for which laboratory animals seem to have tiny dietary requirements, typically less than 1 µg/g. Elements in this category include arsenic, boron, bromine, cadmium, chromium, fluorine, lead, lithium, molybdenum, nickel, selenium, silicon, tin, and vanadium.

ultraviolet (ül'trä-ví'ō-lét) [u + *viola*, violet] Beyond the visible spectrum at its violet end, said of rays between the violet rays and x-rays. SEE: *infrared ray*.

ultraviolet therapy Treatment with ultraviolet radiation. SEE: *heliotherapy*; *phototherapy*.

ululation (ül'ü-lä'shün) [L. *ululare*, to howl] Howling; wailing.

umani (oo-män'ē) The sense of taste triggered by glutamates, such as monosodium glutamate (MSG). It has been proposed as a fifth taste sensation, in addition to the traditionally recognized tastes (bitter, salty, sour, sweet).

umbilical (üm-bil'ī-käl) [L. *umbilicus*, navel] Pert. to the umbilicus.

umbilical cord The attachment connecting the fetus with the placenta. It contains two arteries and one vein surrounded by a gelatinous substance, Wharton's jelly. The umbilical arteries carry blood from the fetus to the placenta, where nutrients are obtained and carbon dioxide and oxygen are exchanged; this oxygenated blood returns to the fetus through the umbilical vein. SEE: *illus*.

The umbilical cord is surgically severed after the birth of the child. To give the infant a better blood supply, the cord should not be cut or tied until the umbilical vessels have ceased pulsating. However, in preterm infants, the cord should be clamped and cut before pulsation ceases to avoid maternal-newborn transfusion and reduce the risk of hypovolemia, polycythemia, and hyperbilirubinemia.

The stump of the severed cord atrophies and leaves a depression on the abdomen of the child, called a navel or umbilicus.

umbilical cord blood SEE: under *cord blood*.

umbilical cord matrix Wharton's jelly.

umbilical souffle A hissing sound said to arise from the umbilical cord.

umbilical vesicle SEE: under *vesicle*.

umbilicate (üm-bil'î-kāt) [L. *umbilicatus*, dimpled] Dimpled, pitted, or shaped like a navel. Said of the appearance of certain rashes, such as molluscum contagiosum. **umbilicated**, *adj.*

umbilication (üm-bil'î-kā'shün) [L. *umbilicatus*, dimpled] **1.** A depression resembling a navel. **2.** Formation at the apex of a pustule or vesicle of a pit or depression.

umbilicus (üm-bil'î-kūs, -bil'î-kūs) *pl. umbilici* [L., a pit] A depressed point in the middle of the abdomen; the scar that marks the former attachment of the umbilical cord to the fetus.

umbo (üm'bō) [L., boss of a shield] The projecting center of a round surface.

u. of tympanic membrane The central depressed portion of the concavity on the lateral surface of the tympanic membrane. It marks the point where the malleus is attached to the inner surface.

umbra (üm'brā) [L., shade, shadow] The edge of the radiographic image proper.

umbrella filter SEE: under *filter*.

UMP *uridine monophosphate*.

un- [AS.] Prefix meaning *back, reversal, annulment, not*.

unbiased (ün-bi'ist) **1.** Neutral; impartial; uninfluenced. **2.** Scientifically randomized.

unbundling Separately billing for laboratory tests or procedures that are normally linked in order to extract more money from a payer (such as Medicare). This practice is illegal in the U.S.

uncal (üng'käl) Concerning the uncus of the brain.

uncal herniation Transtentorial herniation.

Uncaria tomentosa (ün-kä'rē-ä tō-mēntō'sā) A medicinal plant, known popularly as cat's claw or *uña de gato*. Its extracts include alkaloids that are used as an anti-inflammatory for arthritis and also have effects on thinking, concentra-

tion, and sedation. It has also been promoted as a treatment for AIDS, without scientific validation.

unciform, unciforme (ün'si-shə) [L. *uncus*, hook, + *forma*, shape] Uncinate.

uncinariasis (ün'sin-ä-rī'ä-sis) The condition of being infested with hookworms (i.e., worms of the genus *Uncinaria*).

uncinate (ün'sin-ät) [L. *uncinatus*, hooked] Hook-shaped; hooked. SYN: *unciform*.

uncinate bundle of Russell [James S. Risien Russell, Brit. physician, 1863–1939] Fibers that arise in the fastigial superior cerebellar peduncle and pass inferiorly to the vestibular nuclei and reticular formation by which impulses are carried to muscles, esp. those of the neck and body.

uncinate seizure A seizure marked by olfactory and gustatory hallucinations, usually disagreeable; a sense of unreality; and sometimes convulsions and temporary loss of senses of taste and smell. This is associated with lesions of the uncinate gyrus of the temporal lobe of the brain.

uncipressure (ün'si-prësh'ür) [L. *uncus*, hook, + *pressura*, pressure] Pressure applied with the use of a blunt hook to arrest bleeding.

uncoating (ün-kōt'ing) The release of viral nucleic acids from the capsid that covers them. Uncoating of viruses can be complete or incomplete and can occur before a virus enters the cell or after it penetrates a cell membrane.

uncombable hair syndrome A rare disorder, typically identified in childhood, in which hair grows in unruly bundles, sometimes called a "spun glass arrangement." The hair is dry, shiny, or blond, and easily broken. Cross-sectioning often reveals a triangular or grooved shaft. The condition is often associated with other birth defects. SYN: *spun glass hair syndrome*. SEE: *pili trianguli et canaliculi*.

uncomplemented (ün-kōm'plē-mēnt'əd) Not joined or associated with complement and thus inactive.

unconcern Profound uninterest or nonchalance out of proportion to societal norms. It is a characteristic of some brain diseases, including certain forms of brain injury, dementias, intoxications, and strokes.

unconscious (ün-kōn'shüs) [AS. *un*, not, + L. *consciūs*, aware] **1.** Lacking in awareness of the environment; insensible. SEE: *unconsciousness*. **2.** In Freudian psychiatry, that part of the mind that consists of unrecognized feelings and drives.

unconsciousness (ün-kōn'shüs-nēs) [AS. *un*, not, + L. *consciūs*, aware] The state of being partly or completely unaware of external stimuli. Unconsciousness occurs normally in sleep, and

pathologically, in such conditions as syncope (fainting), shock, unperfused cardiac dysrhythmias, and intoxications. SEE: *coma*; *Glasgow Coma Scale*; *Nursing Diagnoses Appendix*.

uncontrolled area For radiation protection purposes, an area occupied by the general public.

unco-ossified (ün'kō-ōs'ī-fid) Not ossified into one bone.

unction (ünk'shūn) [L. *unctio*, ointment]
1. The application of an ointment.
2. Ointment.

uncus (ün'küś) [L. *uncus*, hook] Any structure that is hook-shaped.

undecylenic acid (ün'dē'si-lēn'ik) An antifungal drug used topically to treat tinea pedis.

underachiever A person whose achievements are less than what is predicted to be possible, based on his or her aptitudes, intelligence, and socioeconomic status.

underactive Functioning at less than full efficiency or productivity; said, for example, of glands such as the thyroid or the adrenals.

underage drinking The consumption of alcohol under a legally specified age, usually before one's 21st birthday.

underbite (ün'dēr-bit') A condition in which the lower incisors pass in front of the upper incisors when the mouth is closed.

undercorrection (ün'dēr-kō-rēk'shūn) In refractive eye surgeries such as LASIK, too small a change in shape of the cornea that results in inadequate focusing of light rays (failure of light to fall onto the retina).

undercut (ün'dēr-küt) A condition of having overhanging tissue as could be the case in preparing a dental cavity for restoration. Undercutting helps to keep the filling material in place.

undernutrition (ün'dēr-nū-trīsh'ün) [AS. *under*, beneath, + LL. *nutritio*, nourish] Inadequate nutrition from any cause.

SYMPTOMS: This condition is marked by loss of body weight that begins with loss of glycogen, loss of body fat, and then proceeds to loss of protein. Vitamin, mineral, and micronutrient deficiencies are also usually present. SEE: *malnutrition*.

The term *undernutrition* is also used to indicate reduced caloric consumption while maintaining adequate intake of all micronutrients.

undertoe (ün'dēr-tō) [ʹ + *ta*, toe] The displacement of the great toe underneath the others.

underweight (ün'dēr-wāt') Body weight for height that is 15% to 20% below healthy weight; a body mass index below 19. By this standard, which is the one promoted both by the World Health Organization and the National Heart,

Lung, and Blood Institute, a person who stands 5'7" tall is underweight if he or she weighs less than 120 lb.

In children, underweight can be defined as having a weight-for-height that is less than the 5th percentile for one's age.

undifferentiated connective tissue disease ABBR: UCTD. A connective tissue disease that does not fully meet the criteria for any of the well-defined rheumatological conditions such as rheumatoid arthritis, Sjögren's syndrome, or systemic lupus erythematosus. Signs and symptoms of connective tissue disease must be present for several years. These may include polyarticular arthritis, Raynaud's phenomenon, pleuritis, or pericarditis, among others. The patient with UCTD will also have a positive antinuclear antibody test as well as other autoantibodies. Diagnostic difficulties in UCTD may be found in people who have evidence of mixed connective tissue disease or overlap syndrome.

undifferentiation (ün-dif'er-ēn-shē-ā'shūn) [AS. *un*, not, + L. *differens*, bearing apart] An alteration in cell character to a more embryonic type or toward a malignant state. SYN: *anaplasia*.

undulant (ün'dū-lānt) [L. *undulatio*, wavy] Rising and falling like waves, or moving like them.

undulant fever (ün'dū-lānt) Brucellosis.

undulate (ün'dū-lāt) [L. *undulatio*, wavy] Wavy; having a wavy border with shallow sinuses, said of bacterial colonies.

undulation (ün-dū-lā'shūn) A continuous wavelike motion or pulsation.

ung [L.] *unguentum*, ointment.

ungu-, unguo- Combining forms meaning *nail*.

ungual (üng'gwāl) [L. *unguis*, nail] Pert. to or resembling the nails.

ungual tuberosity The spatula-shaped extremity of the terminal phalanx that supports the nails of fingers and toes.

unguent, unguentum (üng'gwēt) [L. *unguentum*, ointment] Ointment.

unguis (üng'gwīs) *pl. unguis* [L., nail]

1. A fingernail or toenail. SYN: *onyx*.

2. The lacrimal bone. 3. A white prominence on the floor of the posterior horn of the lateral ventricle. SYN: *hippocampus minor*.

u. incarnatus An ingrowing nail, esp. a toenail.

uni- Combining form meaning *one*. SEE: *mono-*.

uniarticular (ū'nē-ār-tīk'ū-lār) [L. *unus*, one, + *artculus*, joint] Pert. to a single joint.

uniaxial (ū'nē-āk'sē-āl) [ʹ + *axis*, axis] Having a single axis.

unicameral (ū'nī-kām'er-āl) [ʹ + *camera*, vault] Having a single cavity.

unicellular (ū'nī-sĕl'ū-lār) [l' + *cellula*, a little box] Having only one cell.

unicorn, unicornous (ū'nī-korn, ū-nī-kor'nūs) [l' + *cornu*, horn] Having a single cornu or horn. Women with a unicornous uterus are at higher risk for repeated pregnancy loss.

unicuspid (ū'nī-kūs'pīd) Having a single cusp.

uniform Having the identical shape or form of other objects of the same class.

unigerminal (ū'nī-jĕr'mī-nāl) Concerning a single ovum or germ.

uniglandular (ū'nī-glān'dū-lār) Concerning or having one gland.

unigravida (ū'nī-grāv'ī-dā) [l' + *gravida*, pregnant] A woman who is pregnant for the first time. SEE: *primigravida*.

unilaminar (ū'nī-lām'ī-nār) Having a single layer.

unilateral (ū'nī-lāt'ĕr-āl) [l' + *latus*, side] Affecting or occurring on only one side. SEE: *contralateral*; *homolateral*; *ipsilateral*.

unilateral neglect Impairment in sensory and motor response, mental representation, and spatial attention of the body and the corresponding environment characterized by inattention to one side and overattention to the opposite side. Left side neglect is more severe and persistent than right side neglect. SEE: *Nursing Diagnoses Appendix*.

unilobar (ū'nī-lō'bār) Having a single lobe.

unilocular (ū'nī-lōk'ū-lār) [l' + *loculus*, a small space] Having only one cavity.

uninuclear (ū'nī-nū'klĕ-ār) [l' + *nucleus*, a kernel] Having only one nucleus.

uninucleated (ū'nī-nū'klĕ-āt'ĕd) Having a single nucleus.

unioocular (ū'nĕ-ōk'ū-lār) [l' + *oculus*, eye] Pert. to or having only one eye.

union (ūn'yūn) [L. *unio*] **1.** The act of joining two or more things into one part, or the state of being so united. **2.** Growing together of severed or broken parts, as of bones or the edges of a wound. SEE: *healing*.

secondary u. **1.** A healing by second intention with adhesion of granulating surfaces. SEE: *healing*. **2.** Operative correction of nonunion of a fracture.

vicious u. The union of the ends of a broken bone formed in such a way as to cause deformity.

unioval (ū'nĕ-ō'vāl) [L. *unus*, one, + *ovum*, egg] Developed from one ovum, as identical twins.

uniovular (ū'nĕ-ōv'ū-lār) [l' + *ovum*, egg] Monozygotic, as in the case of twins that develop from a single ovum.

unipara (ū-nīp'ā-rā) [l' + *parere*, to bring forth, to bear] A woman who has had one pregnancy of more than 20 weeks' duration or has produced a fetus

weighing at least 500 g, regardless of the fetus's viability. SEE: *primipara*.

uniparous (ū-nīp'ā-rūs) [l' + *parere*, to bring forth, to bear] **1.** Giving birth to one offspring at a time. **2.** Having produced one child weighing at least 500 g or having a pregnancy lasting 20 weeks, regardless of the fetus's viability.

unipolar (ū'nī-pō'lār) [l' + *polus*, pole] **1.** Having or pert. to one pole. **2.** Having a single process, as a unipolar neuron.

unipotent, unipotential (ū-nīp'ō-tĕnt, ū'nī-pō-tĕn'shāl) In cell biology, committed to a single, differentiated structure and a single mode of functioning.

Unique Physician Identification Number ABBR: UPIN. A six-digit code, consisting of numbers and letters, assigned in the U.S. to all health care providers who take care of Medicare patients. It allows the Centers for Medicare and Medicaid Services to collect information about a provider's billing practices and to assess his or her utilization of medical services.

uniseptate (ū'nĕ-sĕp'tāt) Having only one septum.

unisex (ū'nī-sĕks") **1.** Lack of gender distinction by external appearance, esp. with respect to hairstyle or clothing. **2.** Suitable for use by either sex.

unit (ū'nīt) [L. *unus*, one] ABBR: u; U. **1.** One of anything. **2.** A determined amount adopted as a standard of measurement. Particular units are listed under the first word. SEE: e.g., *British thermal unit*; *dental unit*; *SI units*.

unitary (ū'nī-tĕr-ĕ) Rel. to a single unit.

unit of capacity The capacity of a condenser that gives a difference of potential of 1 volt when charged with 1 coulomb. SYN: *curie*; *farad*.

United Network for Organ Sharing ABBR: UNOS. An organization established in 1984 to facilitate donation of organs for possible transplantation. Website: www.unos.org. SEE: *organ donation*.

United States Adopted Names ABBR: USAN. Dictionary of nonproprietary names, brand names, code designations, and Chemical Abstracts Service registry numbers for drugs published by the U.S. Pharmacopeial Convention, Inc. The purpose is to have nonproprietary names assigned to new drugs in accordance with established principles. SEE: *USAN and the USP Dictionary of Drug Names*.

United States Pharmacopeia A pharmacopeia issued every 5 years, but with periodic supplements, prepared under the supervision of a national committee of pharmacists, pharmacologists, physicians, chemists, biologists, and other scientific and allied personnel. The U.S. Pharmacopeia was adopted as standard in 1906. Beginning with the U.S. Pharmacopeia XIX, 1975, the National For-

mulary has been included in that publication.

United States Public Health Service
 ABBR: USPHS. An agency of the U.S. Department of Health and Human Services (HHS). Its function is to assess health care needs and promote national and international health. Included in the organization are the Centers for Disease Control and Prevention (CDC); Food and Drug Administration (FDA); Alcohol, Drug Abuse and Mental Health Administration; Agency for Toxic Substances and Disease Registry; and various USPHS regional offices.

univalence (ū'nī-vā'lēns) The condition of having only one valence.

univalent (ū'nī-vā'lēnt, ū-nīv'ā-lēnt) [*un-* + *valens*, to be powerful] Possessing the power of combining or replacing one atom of hydrogen. SYN: *monovalent*.

universal (ū'nī-vēr'sāl) [L. *universalis*, combined into one whole] General or applicable or common to all situations or conditions.

universal cuff A device fitted around the palm of the hand to permit attachment of self-care tools when normal grasp is absent. SYN: *palmar cuff*.

universal design The design of places and objects to enable access and use by all persons, to the greatest extent possible, without adaptation or modification.

Universal Nonverbal Intelligence Test
 ABBR: UNIT. A psychometric test designed to assess IQ without testing a subject's understanding of language.

universal precautions Guidelines designed to protect workers with occupational exposure to bloodborne pathogens (such as HIV and hepatitis B virus). These "universal blood and body fluid precautions" (e.g., gloves, masks, and gowns), originally recommended by the Centers for Disease Control and Prevention in 1985, were mandated by the OSHA Bloodborne Pathogens Standard in 1991 for workers in all U.S. health care settings. SEE: *Standard and Universal Precautions Appendix*.

universal recipient A person belonging to blood type AB, Rh positive, whose serum will not agglutinate the cells of the other ABO blood types. The recipient's blood must be tested by cross-matching before transfusion to exclude minor antigenic mismatches.

unknowns (ū'nōnz') In hypnotherapy those feelings, ideas, or images that are unfamiliar to a person and therefore potentially frightening, hazardous, or uncomfortable.

unlicensed assistive personnel (pēr-sŏn-nēl') ABBR: UAP. Unlicensed health care personnel who work under the direction of a registered nurse. In addition to delivering direct patient care, they

may take blood samples, provide respiratory treatments, or keep track of medical records. Some UAPs are multiskilled. Each state regulates UAP practice independently.

unlocking Mobilizing or freeing, e.g., a joint and its associated muscles.

Unna's paste (oo'nāz) [Paul G. Unna, Ger. dermatologist, 1850–1929] A mixture of 15% zinc oxide in a glyocogelatin base.

Unna's (paste) boot A bootlike dressing of the lower extremity made of layers of gauze and Unna's paste. It is used in treating chronic ulcers of the leg. SEE: *illus.*



UNNA'S BOOT

Boot uncovered on right leg; covered with cohesive bandage on left leg

unorthodox 1. Unconventional. Not in conformity with generally accepted standards of care. 2. Bizarre. Unscientific. Irrational.

UNOS *United Network for Organ Sharing*.

unsaturated (ūn-săt'ū-rāt'ēd) [AS. *un-*, not, + L. *saturare*, to fill] 1. Capable of dissolving or absorbing to a greater degree. 2. Not combined to the greatest possible extent.

unsaturated compound An organic compound having double or triple bonds between the carbon atoms.

unsealed source radiation Radioactive nuclides that are given to patients orally, or by intravenous injection, e.g., iodine-131, given as a treatment for thyroid gland ablation.

unsex (ūn-sĕks') [*un-* + L. *sexus*, sex] 1. To castrate; to spay or excise the ovaries or testes. 2. To deprive of sexual character.

unstriated (ūn-strī'āt-ēd) [*un-* + *striatus*, striped] Unstriped, as smooth muscle fibers.

up and go test A timed test of lower-extremity mobility. It measures the time required to rise from a chair, walk 10 ft, turn, and return to the sitting position. Performance on this test is affected by

abnormal gaits that increase the risk of falling.

upcode (ŭp'kōd") To assign a higher billing code to a patient visit than is justified by common practice or law.

upjo (ŭp'jō") A commonly used acronym for *ureteropelvic junction obstruction*. The ureteropelvic junction is the last segment of the ureter, through which urine normally passes into the bladder. It is a common location for kidney stones to lodge and obstruct the flow of urine when they pass from the renal pelvis down the ureter.

upper airway obstruction ABBR: UAO. Any potentially life-threatening abnormality in which the flow of air into and out of the lungs is partially or completely blocked by such conditions as laryngeal swelling, foreign bodies, or angioedema. SEE: *cardiopulmonary resuscitation; tracheostomy*.

upper airway resistance syndrome ABBR: UARS. A type of sleep-disordered breathing, caused by increased airflow obstruction, in which a person awakens multiple times and then suffers daytime drowsiness or fatigue.

upper GI *upper gastrointestinal*.

upper motor neuron lesion Neurological damage to the corticospinal or pyramidal tract in the brain or spinal cord. This lesion results in hemiplegia, paraplegia, or quadriplegia, depending on its location and extent. Clinical signs include loss of voluntary movement, spasticity, sensory loss, and pathological reflexes.

upper respiratory infection ABBR: URI. An imprecise term for any infection involving the nasal passages, pharynx, and bronchi. The cause is usually bacterial or viral, and, occasionally, fungal.

upregulate (ŭp-rĕg'yū-lăt) **1.** To increase the responsiveness of a cell or organ to a stimulus. **2.** To increase the number of receptors on a cell membrane.

upsiloid (ŭp'sī-loyd) [Gr. *upsilon*, letter U, + *eidos*, form, shape] Shaped like the letter U or V.

upstream (ŭp'strĕm") In descriptions of genetic material, codons or base pairs that are on the 5' side of a specific gene.

uptake (ŭp'tāk) The absorption of nutrients, chemicals (including radioactive materials), and medicines by tissues or by an entire organism.

urachal (ŭ'ră-kăl) [Gr. *ourachos*, fetal urinary canal] Rel. to the urachus.

uracil (ŭ'ră-sil) C₄H₄N₂O₂; a pyrimidine base found in RNA (not DNA) which, if paired, pairs with adenine.

uranium (ŭ-ră'nĕ-ŭm) [LL., planet Uranus] SYMB: U. A radioactive element, the parent of radium and other radioelements; atomic weight, 238.029; atomic number, 92. Uranium ore contains the isotopes ²³⁸U, ²³⁵U, and ²³⁴U.

depleted u. The metal remaining af-

ter the most active radioisotope (²³⁵U) has been extracted from uranium. A heavy metal, depleted uranium is used in munitions, e.g., in armor-piercing weapons. Its radioactivity is about 40% that of natural uranium.

It is estimated that, worldwide, more than 1 million tons of depleted uranium are stored. About 95% of the depleted uranium produced until now is stored as uranium hexafluoride, (D)UF₆. The long-term storage of (D)UF₆ presents environmental, health, and safety risks because of its chemical instability. When UF₆ is exposed to moist air, it reacts with the water in the air to produce UO₂F₂ (uranyl fluoride) and HF (hydrogen fluoride), which are both highly soluble and toxic. SEE: *enriched u.*

enriched u. Uranium with a higher concentration of the radioisotope ²³⁵U than is found in natural uranium ore. The isotope ²³⁵U is used to manufacture nuclear fuel rods (for electrical power generation) and nuclear weapons. SEE: *depleted u.*

uranoplegia (ŭ'ră-nō-plĕ'jĕ-ă) [r + *plege*, stroke] Paralysis of muscles of the soft palate.

uranous A common oxidation state of uranium (U⁺⁴ or U (IV)) with a quadruple positive charge.

uranyl (ŭ'ră-nil) The bivalent uranium radical UO²⁺. It forms salts with many acids. An example is uranyl nitrate, UO₂(NO₃)₂.

urase (ŭ'rās) Urease.

urate (ŭ'răt) [Gr. *ouron*, urine] The combination of uric acid with a base; a salt of uric acid.

urban legend (ŭr'bĭn) [L. *urbanus*] Myth (2). Urban legends about health care are widely disseminated by patients and practitioners. One favorite is the internet prank that states that dihydrogen monoxide is a deadly toxin widely consumed by human beings. Its chemical formula is H₂O.

Most urban legends are not humorous or malicious pranks but are based on misunderstandings or unrecognized errors in reasoning, e.g., the common but false belief that emergency rooms are busiest during certain phases of the moon.

urceiform (ŭr-sĕ'ī-form) [L. *urceus*, pitcher, + *forma*, shape] Pitcher-shaped.

urea (ŭ-rĕ'ă) [Gr. *ouron*, urine] The diamide of carbonic acid, a crystalline solid having the formula CH₄N₂O; found in blood, lymph, and urine.

It is formed in the liver from ammonia derived from the deamination of amino acids.

Urea is the chief nitrogenous constituent of urine and, along with carbon dioxide, the final product of protein metabolism in the body. In normal

conditions, urea represents 80% to 90% of the total urinary nitrogen. It is odorless and colorless, appears as white prismatic crystals, and forms salts with acids. The amount of urea excreted varies directly with the amount of protein in the diet. Its excretion is increased in fever, diabetes, or increased activity of the adrenal gland, and decreased in kidney failure.

urea balance test A test of kidney function performed by measuring intake and output of urea.

urea cycle The complex cyclic chemical reactions in some (ureotelic) animals, including humans, that produce urea from the metabolism of nitrogen-containing foods. This cycle provides a method of excreting the nitrogen produced by the metabolism of amino acids as urea. The cycle was first described by Sir Hans Krebs [1900–1981].

u.c. disorder ABBR: UCD. One of six inherited disorders in which an enzyme in the urea cycle is missing or non-functional, resulting in the accumulation of excess ammonia in the bloodstream. Lethargy, failure to thrive, nausea and vomiting, encephalopathy, and coma are common symptoms, esp. in the newborn period.

urea frost White flaky deposits of urea seen on the skin in patients with advanced uremia.

ureagenetic (ū-rē"ā-jēn-ēt'ik) [" + *genesis*, generation, birth] Pert. to or producing urea.

ureametry (ū-rē-ām'ēt-rē) Determination of the amount of urea in urine.

urea nitrogen The nitrogen of urea (as distinguished from nitrogen in blood proteins).

Ureaplasma urealyticum (ū-rē"ā-plās'mā) A mycoplasma that is usually sexually transmitted. It may cause inflammation of the reproductive or urinary tracts in males and females. It has been implicated in a wide variety of infections in babies with low birth weight.

urea-reduction ratio The relative decrease (or clearance) of blood urea nitrogen during hemodialysis. The ratio is a measure of the adequacy of renal replacement. The failure to achieve an adequate ratio leads to increased morbidity and mortality among renal failure patients.

urease (ū-rē-ās) [Gr. *ouron*, urine] 1. An enzyme that accelerates the hydrolysis of urea into carbon dioxide and ammonia. It is used in determining the amount of urea in blood or in urine. 2. An enzyme used by certain microorganisms to facilitate their existence in otherwise inhospitable body locations.

urelcosis (ū-rēl-kō'sis) [" + *helkosis*, ulceration] Ulceration of the urinary tract.

uremigenic (ū-rē'mī-jēn'ik) [Gr. *ouron*,

urine, + *haima*, blood, + *gennan*, to produce] Caused by or producing uremia.

ureogenesis (ūr"ē-ō-jēn'ē-sis) [" + *genesis*, generation, birth] Formation of urea.

ureotelic (ū"rē-ō-tēl'ik) [*urea* + Gr. *telikos*, belonging to the completion] Concerning animals that excrete amino nitrogen in the form of urea. Included in this group are mammals. SEE: *urea cycle*; *uricotelic*.

uresis (ū-rē'sis) [Gr. *ouresis*] Urination.

ureter (ū-rē-ter, ū-rē'tēr) [Gr. *oureter*] The tube that carries urine from the kidney to the bladder. It originates in the pelvis of the kidney and terminates in the posterior base of the bladder. Each kidney has one ureter measuring from 28 to 34 cm long, the right being slightly shorter than the left. The diameter varies from 1 mm to 1 cm. The wall consists of three layers: the mucosal, muscular, and fibrous layers. SEE: *kidney*; *urethra*.

ureteralgia (ū-rē-tēr-āl'jē-ā) [" + *algos*, pain] Pain in the ureter.

ureterectasis (ū-rē"tēr-ēk'tā-sis) [" + *ektasis*, dilatation] Dilatation of the ureter.

ureterectomy (ū-rē"tēr-ēk'tō-mē) [" + *ektome*, excision] Excision of a ureter.

ureteritis (ū-rē"tēr-ī'tis) [" + *itis*, inflammation] Inflammation of the ureters.

uretero- Combining form indicating *ureter*.

ureterocele (ū-rē"tēr-ō-sēl) [" + *kele*, tumor, swelling] Cystlike dilatation of the ureter near its opening into the bladder; usually a result of congenital stenosis of the ureteral orifice.

ureteroclectomy (ū-rē"tēr-ō-sē-lēk'tō-mē) [" + " + *ektome*, excision] Surgical removal of a ureterocele.

ureterocolostomy (ū-rē"tēr-ō-kō-lōs'tō-mē) [" + *kolon*, colon, + *stoma*, mouth] The implantation of the ureter into the colon.

ureterocystoscope (ū-rē"tēr-ō-sis'tō-skōp) [" + *kystis*, bladder, + *skopein*, to examine] A cystoscope combined with a ureteral catheter. SYN: *cystourethroscopy*.

ureteroenterostomy (ū-rē"tēr-ō-ēn-tēr-ōs'tō-mē) [" + *enteron*, intestine, + *stoma*, mouth] Formation of a passage between a ureter and the intestine.

ureterography (ū-rē"tēr-ōg'rā-fē) [" + *graphein*, to write] Radiography of the ureter after injection of a radiopaque substance into it.

ureteroheminephrectomy (ū-rē"tēr-ō-hēm"ī-nē-frēk'tō-mē) [" + *hemi*-, half, + *nephros*, kidney, + *ektome*, excision] In cases of reduplication of the upper urinary tract on one side, surgical removal of the reduplicated portion.

ureterohydronephrosis (ū-rē"tēr-ō-

hī'drō-nē-frō'sis) [" + *hydor*, water, + *nephros*, kidney, + *osis*, condition] Dilatation of the ureter and the pelvis of the kidney resulting from a mechanical or inflammatory obstruction in the urinary tract.

ureteroileostomy (ū-rē'tēr-ō-īl'ē-ōs'tō-mē) [" + *ileum*, ileum, + *stoma*, mouth] Surgical anastomosis of a ureter to an isolated segment of the ileum. The ileum is connected to an abdominal stoma so that urine leaves the body via that opening.

ureterolith (ū-rē'tēr-ō-līth) [" + *lithos*, stone] A stone or calculus in the ureter.

ureterolithiasis (ū-rē'tēr-ō-līth-ī'ās-īs) [" + " + *iasis*, condition] Development of a stone in the ureter.

ureterolithotomy (ū-rē'tēr-ō-līth-ōt'ō-mē) [" + " + *tome*, incision] Surgical incision for removal of a stone from the ureter.

ureterolysis (ū-rē'tēr-ōl'ī-sīs) [" + *lysis*, dissolution] **1.** Rupture of a ureter. **2.** Paralysis of the ureter. **3.** The process of loosening adhesions around the ureter.

ureteroneocystostomy (ū-rē'tēr-ō-nē'ō-sīs-tōs'tō-mē) [" + *neos*, new, + *kystis*, bladder, + *stoma*, mouth] Surgical formation of a new passage between a ureter and the bladder.

ureteroneopyelostomy (ū-rē'tēr-ō-nē'ō-pī-ē-lōs'tō-mē) [" + " + *pyelos*, pelvis, + *stoma*, mouth] Excision of a portion of the ureter with attachment of the severed end of the lower portion to a new opening in the renal pelvis. SYN: *ureteropyelostomy*.

ureteronephrectomy (ū-rē'tēr-ō-nēf-rēk'tō-mē) [" + *nephros*, kidney, + *ektome*, excision] Removal of a kidney and its ureter.

ureteropelvioplasty (ū-rē'tēr-ō-pēl'vē-ō-plās'tē) [Gr. *oureter*, ureter, + L. *pelvis*, basin, + Gr. *plassein*, to mold] Plastic surgery of the junction of the ureter and the pelvis of the kidney.

ureteroplasty (ū-rē'tēr-ō-plās'tē) [" + *plassein*, to form] Plastic surgery of the ureter.

ureteroproctostomy (ū-rē'tēr-ō-prōk-tōs'tō-mē) [" + *proktos*, anus, + *stoma*, mouth] The formation of a passage from the ureter to the lower rectum.

ureteropyelitis (ū-rē'tēr-ō-pī-ēl'ītīs) [" + *pyelos*, pelvis, + *itis*, inflammation] Inflammation of the pelvis of the kidney and a ureter.

ureteropyelonephritis (ū-rē'tēr-ō-pī'ēl-ō-nēf-rī'tīs) [" + " + *nephros*, kidney, + *itis*, inflammation] Inflammation of the renal pelvis and the ureter.

ureteropyeloplasty (ū-rē'tēr-ō-pī-ēl-ō-plās'tē) [" + " + *plassein*, to mold] Plastic surgery of the ureter and renal pelvis.

ureteropyelostomy (ū-rē'tēr-ō-pī'ē-lōs'tō-mē) [" + " + *stoma*, mouth] Ureteroneopyelostomy.

ureteropyosis (ū-rē'tēr-ō-pī-ō'sis) [" + *pyon*, pus, + *osis*, condition] Suppurative inflammation within a ureter.

ureterorrhagia (ū-rē'tēr-ō-rā'jē-ā) [" + *rhegnynai*, to burst forth] Hemorrhage from the ureter.

ureterorrhaphy (ū-rē'tēr-ō-rā'fē) [" + *rhaphe*, seam, ridge] Suture of the ureter (e.g., when repairing a fistula).

ureteroscope (ū-rē'tēr-ō-skōp') A rigid or flexible endoscope used to examine and treat diseases of the urinary bladder or ureters. Ureteroscopes are inserted into the urethra and advanced upward toward the kidneys. They can be used to biopsy suspicious lesions or remove urinary stones lodged in the ureters.

ureter sigmoidostomy (ū-rē'tēr-ō-sīg-moyd-ōs'tō-mē) [" + *sigma*, letter S, + *eidos*, shape, + *stoma*, mouth] Surgical implantation of the ureter into the sigmoid colon.

ureterostoma (ū-rē'tēr-ōs'tō-mā) [Gr. *oureter*, ureter, + *stoma*, mouth] The orifice through which the ureter enters the urinary bladder.

ureterostomy (ū-rē'tēr-ōs'tō-mē) [" + *stoma*, mouth] The formation of a permanent fistula for drainage of a ureter.

cutaneous u. Surgical implantation of the ureter into the skin. This allows urine to drain via the ureter to the outside of the body by going through the stoma.

ureterotomy (ū-rē'tēr-ōt'ō-mē) [" + *tome*, incision] Incision or surgery of the ureter.

ureterotrigonenterostomy (ū-rē'tēr-ō-trī-gō'nō-ēn'tēr-ōs'tō-mē) [" + *trigolon*, three-sided figure, + *enteron*, intestine, + *stoma*, mouth] Surgical removal of the trigone of the bladder with one or both of the ureteral openings and implantation of it into the intestine.

ureteroureterostomy (ū-rē'tēr-ō-ū-rē'tēr-ōs'tō-mē) [" + " + *stoma*, mouth] **1.** The formation of a connection from one ureter to the other. **2.** The re-establishment of a passage between the ends of a divided ureter.

ureterouterine (ū-rē'tēr-ō-ū'tēr-īn) [" + L. *uterus*, womb] Concerning the ureter and uterus or a fistula between them.

ureterovaginal (ū-rē'tēr-ō-vāj'ī-nāl) [" + L. *vagina*, sheath] Relating to a ureter and the vagina, denoting a fistula connecting them.

ureterovesical (ū-rē'tēr-ō-vēs'ī-kl) Relating to the entry point of the ureter into the urinary bladder. Kidney stones frequently lodge at this location.

ureterovesicostomy (ū-rē'tēr-ō-vēs'ī-kōs'tō-mē) [" + " + Gr. *stoma*,

mouth] Reimplantation of a ureter into the bladder.

urethra (ū-rē'thrā) [Gr. *ourethra*] The tube for the discharge of urine extending from the bladder to the outside. In females, its orifice lies in the vestibule between the vagina and clitoris; in males, the urethra passes through the prostate gland and the penis, opening at the tip of the glans penis. In males, it serves as the passage for semen as well as urine. Its lining, the mucosa, is thrown into folds and contains the openings of the urethral glands. Surrounding the mucosa is a lamina propria containing many elastic fibers and blood vessels, outside of which is an indefinite muscular layer. SEE: *penis*.

urethral (ū-rē'thrāl) [Gr. *ourethra*, *urethra*] Relating to the urethra.

urethralgia (ū-rē'thrāl'jē-ā) [" + *algos*, pain] Pain in the urethra.

urethratresia (ū-rē'thrā-trē'zē-ā) [" + *a-*, not, + *tresis*, a perforation] Occlusion or imperforation of the urethra.

urethrectomy (ū-rē'thrēk'tō-mē) [" + *ektome*, excision] Surgical excision of the urethra or part of it.

urethrisms, urethrisms (ū-rē'thrīzm, ū'rē'thrīz'mūs) [" + *-ismos*, condition] Irritability or spasm of the urethra.

urethritis (ū'rē'thrītīs) [" + *itis*, inflammation] Inflammation of the urethra.

anterior u. Inflammation of that portion of the urethra anterior to the anterior layer of the triangular ligament.

gonococcal u. Urethritis caused by *Neisseria gonorrhoeae*.

nongonococcal u. ABBR: NGU. Urethral inflammation caused by organisms other than *Neisseria gonorrhoeae*. NGU is the most common sexually transmitted disease in men. It accounts for 4 to 6 million physician visits annually. The symptoms usually include painful urination and a urethral discharge. The two organisms most frequently associated with NGU are *Chlamydia trachomatis* and *Ureaplasma urealyticum*. Other causes include herpes simplex virus, *Trichomonas vaginalis*, *Haemophilus influenzae*, *Gardnerella vaginalis*, and *Clostridium difficile*.

TREATMENT: NGU due to *C. trachomatis* or *U. urealyticum* is treated with doxycycline or azithromycin. Appropriate antibiotics are used for other causative organisms.

nonspecific u. ABBR: NSU. Nongonococcal u.

posterior u. Inflammation of membranous and prostatic portions of the urethra.

specific u. Urethritis due to a specific organism, usually gonococcus.

urethro- [Gr. *ourethra*] Combining form meaning *urethra*.

urethrobular (ū-rē'thrō-būl'bār) Concerning the urethra and the bulbar penis.

urethrocele (ū-rē'thrō-sēl) [" + *kele*, tumor, swelling] 1. Pouchlike protrusion of the urethral wall in the female. 2. Thickening of connective tissue around the urethra in the female.

urethrocystitis (ū-rē'thrō-sīs-tī'tīs) [" + *kystis*, bladder, + *itis*, inflammation] Inflammation of the urethra and bladder.

urethrocystopexy (ū-rē'thrō-sīs'tō-pēk'sē) [" + *kystis*, bladder, + *pexis*, fixation] Plastic surgery of the urethral-bladder junction to relieve urinary stress incontinence.

urethrograph (ū-rē'thrō-grāf) A device for recording the caliber of the urethra.

urethrography (ū-rē'thrōg'rā-fē) [" + *graphein*, to write] Radiography of the urethra after it has been filled with contrast medium.

voiding u. Radiographic examination of the urethra during urination after the introduction of a contrast medium.

urethrometer (ū-rē'thrōm'ēt-ēr) [Gr. *ourethra*, urethra, + *metron*, measure] An instrument for measuring the diameter of the urethra or the lumen of a stricture.

urethropehile (ū-rē'thrō-pē'nīl) [" + L. *penis*, penis] Relating to the urethra and penis.

urethroperineal (ū-rē'thrō-pēr-ī-nē'āl) [" + *perinaion*, perineum] Rel. to the urethra and perineum.

urethroperineoscrotal (ū-rē'thrō-pēr-ī-nē'ō-skrō'tāl) [" + " + L. *scrotum*, a bag] Relating to the urethra, perineum, and scrotum.

urethropexy (ū-rē'thrō-pēks-ē) [" + Gr. *pexis*, fixation] Surgical fixation of the urethra.

urethropraxis (ū-rē'thrō-frāks'īs) [" + *phrassein*, to obstruct] Urethral obstruction.

urethroplasty (ū-rē'thrō-plās'tē) [" + *plassein*, to mold] Reparative surgery of the urethra.

urethroprostatic (ū-rē'thrō-prōs-tāt'īk) Concerning the urethra and prostate.

urethrorectal (ū-rē'thrō-rēk'tāl) [Gr. *ourethra*, urethra, + L. *rectus*, straight] Rel. to the urethra and rectum.

urethrorrhagia (ū-rē'thror-ā'jē-ā) [" + *rhegnynai*, to burst forth] Hemorrhage from the urethra.

urethrorrhaphy (ū-rē'thror-ā'f-ē) [" + *rhaphe*, seam, ridge] Suture of the urethra or of a urethral fistula.

urethrorrhea (ū-rē'thror-ē'ā) [" + *rhoia*, flow] An abnormal discharge from the urethra.

urethroscopy (ū-rē'thrōs'kō-pē) An ex-

amination of the mucous membrane of the urethra with a urethroscope.

urethrospasm (ū-rē'thrō-spāzm) [" + *spasmos*, a convulsion] Spasmodic stricture of the urethra.

urethrostenosis (ū-rē'thrō-stēn-ō'sīs) [" + *stenosis*, act of narrowing] Stricture of the urethra.

urethrostomy (ū-rē-thrōs'tō-mē) [" + *stoma*, mouth] The formation of a permanent fistula opening into the urethra by perineal section and fixation of the membranous urethra in the perineum.

urethrotome (ū-rē'thrō-tōm) [" + *tome*, incision] An instrument for incision of a urethral stricture.

urethrotomy (ū-rē-thrōt'ō-mē) Incision of a urethral stricture.

urethrotigonitis (ū-rē'thrō-trī'gō-nī'tīs) [" + *trigonon*, three-sided figure, + *itis*, inflammation] Inflammation of the urethra and the trigone of the bladder.

urge **1.** A strong desire; a force or a motive that impels action. **2.** The need to urinate or defecate.

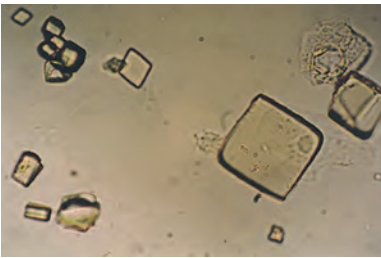
urgency A sudden, almost uncontrollable need to urinate.

Urginea (ūr-jīn'ē-ŭ) [NL] Squill.

URI *upper respiratory infection*.

uric (ū'rīk) [Gr. *ourikos*, urine] Of or pert. to urine.

uric acid A crystalline acid, $C_5H_4N_4O_3$, occurring as an end product of purine metabolism. It is formed from purine bases derived from nucleic acids (DNA and RNA). It is a common constituent of urinary stones and gouty tophi. **SEE: illus.**



URIC ACID CRYSTALS (×400)

OUTPUT: The uric acid output should be between 0.8 and 1 g/day if the patient is on an ordinary diet. Uric acid must be excreted because it cannot be metabolized.

Increased elimination is observed after ingestion of proteins and nitrogenous foods, after exercise, after administration of cytotoxic agents, and in gout and leukemia. Decreased elimination is observed in kidney failure, lead poisoning, and in people who eat a protein-free diet.

endogenous u.a. Uric acid derived from purines undergoing metabolism from the nucleic acid of body tissues.

exogenous u.a. Uric acid derived

from purines from food made up of free purines and nucleic acids. **SEE: urate; uraturia.**

uricacidemia (ū'rīk-ās-īd-ē'mē-ā) [Gr. *ourikos*, urine, + *L. acidus*, sour, + Gr. *haima*, blood] Hyperuricemia.

uricaciduria (ū'rīk-ās-īd-ū'rē-ā) [" + " + Gr. *ouron*, urine] Excessive uric acid in the urine.

uricase (ū'rī-kāz) [" + *-ase*, enzyme] An enzyme present in the liver and kidneys of most mammals, but not humans. This enzyme is capable of oxidizing uric acid into allantoin and carbon dioxide.

uricosuria (ū'rī-kō-sū'rē-ā) [" + *ouron*, urine] The excessive excretion of uric acid in the urine.

uricosuric (ū'rī-kō-sū'rīk) Potentiating the excretion of uric acid in the urine.

uricosuric agent A drug (such as probenecid or sulfipyrazone) that increases the urinary excretion of uric acid by blocking renal tubular absorption, thereby reducing the concentration of uric acid in the blood. It is used to treat gout.

PATIENT CARE: Probenecid and sulfipyrazones are used to treat gout. Side effects of both include headache, gastrointestinal upset, epigastric pain, kidney stone formation, and peptic ulceration. These drugs should be avoided by patients with diminished renal function. Any uricosuric agent should be taken with milk, food, or antacids to reduce gastric distress. Patients should drink large volumes of water. Sodium bicarbonate (or potassium citrate) is prescribed simultaneously with these agents to alkalinize urine and keep uric acid crystals in solution.

uricotelic (ū'rī-kō-tēl'īk) [" + *telikos*, belonging to the completion] Concerning animals that excrete amino nitrogen in the form of uric acid. Included in this group are birds and reptiles. **SEE: urea cycle; ureotelic.**

uridine (ūr'ī-dīn) A nucleoside that is one of the four main riboside components of ribonucleic acid. It consists of uracil and D-ribose.

u. diphosphate A uridine-containing nucleotide important in certain metabolic reactions, in which it transports sugars such as glucose and galactose.

uridrosis (ū-rī-drō'sīs) [" + *hidrosis*, a sweating] The presence of urea in the sweat. Evaporation may show white scales, the crystals of urea.

urin- **SEE: urino-**

urinal (ū'rīn-āl) [*L. urina*, urine] **1.** A container into which one urinates. **2.** A toilet or bathroom fixture for receiving urine and flushing it away.

condom u. Condom catheter.

urinalysis (ū'rī-nāl'ī-sīs) [" + Gr. *ana*, apart, + *lysis*, a loosening] Analysis of the urine. **SEE: urine.**

COLLECTION OF URINE: For a routine urinalysis, a voided specimen of urine in a clean container is usually sufficient. For culture, either a clean-catch or a catheterized specimen is required. For a catheterized specimen, the individual cleanses the perineum or glans penis with soap and water or an antiseptic solution such as benzalkonium chloride before voiding. A midstream specimen of urine is then collected in a sterilized container. A catheterized specimen is obtained by passing a catheter into the bladder, using sterile technique. SEE: *suprapubic catheter*.

NOTE: A urine specimen may be obtained to test for excretion of drugs of abuse. In such cases, care must be taken to ensure that appropriate consent is obtained, that the specimen was produced by the individual, and that there was no opportunity for the specimen to be diluted.

urinary (ū'ri-nār'ē) [L. *urina*, urine]

Pert. to, secreting, or containing urine.

urinary bladder SEE: under *bladder*.

urinary calculus A stone formed in the urinary tract, but usually found in the renal pelvis and/or kidney calyces. These vary in composition but may contain urates, calcium, oxalate, calcium carbonate, phosphates, and cystine. SEE: *calculus, renal; lithotripter*.

SYMPTOMS: Predisposing factors include dehydration, infection, obstruction, and metabolic factors. In the U.S., urinary stones develop in 2% to 10% of people, more often in southeastern states than in other parts of the country. Males have a 3 times higher rate than females, especially between ages 30 and 40. Struvite calculi, which account for about 15% of all stones, are found primarily in females, usually related to urinary tract infections. Pain related to obstruction is the primary symptom. Classic renal colic travels from the costovertebral angle to the suprapubic region and external genitalia. Its intensity fluctuates, but is excruciating at its peak. Nausea and vomiting usually accompany the most severe pain. Diagnosis is based on the clinical picture plus CT scan or MRI, excretory urography, KUB X-rays, and stone analysis.

PATIENT CARE: The patient is encouraged to verbalize anxieties and concerns regarding severe pain. Pain relief measures are instituted as prescribed; they include analgesics, antispasmodics, and warm, moist heat. All urine is strained for stones, and any calculus is sent for laboratory analysis. Vigorous hydration with oral or intravenous fluids assist in passage of small stones (90% are smaller than 5 mm in diameter). If a lithotripter is to be used to shatter the calculus for removal by suction or natural passage, the duration of the procedure and follow-up care are ex-

plained. Procedures for surgical removal depend on the location of the calculus, and include cystoscopy with ureteral manipulation, or a flank or lower abdominal laparoscopic or open approach. All diagnostic studies are explained and the patient is encouraged to verbalize fears and concerns. Urine is observed for hematuria, and specimens are tested for specific gravity and pH. Vital signs are monitored; if temperature is elevated, antipyretic measures are instituted as ordered, and antibiotics specific to cultured organisms are prescribed. Fluids are forced (PO/IV) to enhance dilution of urine, and intake and output are monitored. Fruit juices, specifically cranberry juice or cranberry tablets, help to acidify urine. The health care professional stays alert for complications such as infection, stasis, and retention. A catheter is inserted as ordered. Dietary management is based on the composition of the stone. If phosphate stones are present, patients should increase their intake of acid-ash foods such as cereals, eggs, meat, and cranberry and grape juices. Persons prone to uric acid stones should consume an alkaline-ash diet of green vegetables and fruits and avoid foods high in purine. To minimize urinary tract infections, esp. for female patients, the patient is taught proper perineal hygiene, and the need for increased fluid intake is emphasized.

Postsurgery, the patient usually has an indwelling catheter or a nephrostomy tube in place. Bloody drainage is expected, and this tube should never be irrigated without a specific physician order. If the kidney was removed, the patient should be reassured that the body can adapt well to one kidney. Pulmonary hygiene using an spirometer is stressed in the presence of flank or abdominal incisions. Dressings are assessed for drainage, and changed per protocol, and signs of hemorrhage or infection reported promptly.

urinary director appliance A hand-held, hollow, plastic device that fits over the vulva, enabling a woman to urinate while standing. The device collects urine and allows it to be directed away from the user through an outlet spout. Intended use is for women who are active outdoors and need to urinate without partially disrobing. Medically, the appliance has been found to be useful in patients who have had a radical vulvectomy.

Other devices for use by women in collecting urine are available. Some of these have the capacity to contain the specimen for disposal rather than merely redirecting the flow.

urinary diversion The surgical redirection of urine flow. SEE: *Nursing Diagnoses Appendix*.

urinary elimination, impaired Dysfunction in urine elimination. SEE: *Nursing Diagnoses Appendix*.

urinary elimination, readiness for enhanced A pattern of urinary functions that is sufficient for meeting eliminatory needs and can be strengthened. SEE: *Nursing Diagnoses Appendix*.

urinary incontinence Loss of control over urination. SEE: *incontinence; incontinence, stress urinary*.

u.i., functional Inability of usually continent person to reach toilet in time to avoid unintentional loss of urine. SEE: *Nursing Diagnoses Appendix*. SEE: *under incontinence*.

u.i., overflow Involuntary loss of urine associated with overdistention of the bladder. SEE: *Nursing Diagnoses Appendix*. SEE: *incontinence, overflow*.

u.i., reflex Involuntary loss of urine at somewhat predictable intervals when a specific bladder volume is reached. SEE: *Nursing Diagnoses Appendix*.

u.i., risk for urge At risk for an involuntary loss of urine associated with a sudden, strong sensation or urinary urgency. SEE: *Nursing Diagnoses Appendix*.

u.i., stress Sudden leakage of urine with activities that increase intra-abdominal pressure. SEE: *Nursing Diagnoses Appendix*.

u.i., total Continuous and unpredictable loss of urine. SEE: *Nursing Diagnoses Appendix*.

u.i., urge Involuntary passage of urine occurring soon after a strong sense of urgency to void. SEE: *Nursing Diagnoses Appendix*.

urinary retention The state in which the individual experiences incomplete emptying of the bladder. High urethral pressure inhibits voiding until increased abdominal pressure causes urine to be involuntarily lost, or high urethral pressure inhibits complete emptying of the bladder.

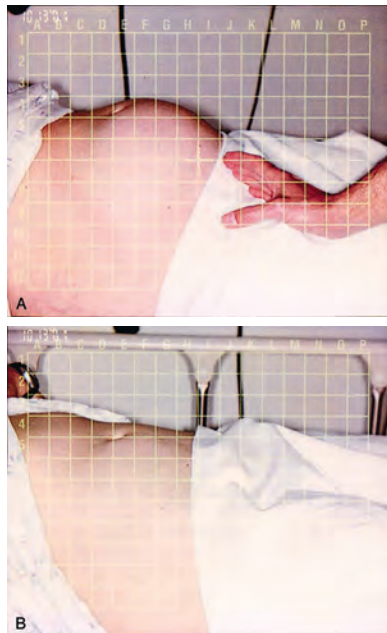
PATIENT CARE: Ultrasound can be used to measure residual urine after voiding (i.e., to determine postvoid residual urinary retention). Other uses of bladder ultrasound include: identifying an obstruction in an indwelling catheter (indicated by a significant urine volume when the bladder should be almost empty), or the presence of bladder distention and the need for urinary catheterization.

Health care professionals should use standard precautions when a bladder scanner is employed. The procedure, which is painless, should be explained to the patient and appropriate privacy (screening and draping) provided. The probe (also known as the “transducer”) should then be cleansed with a disinfectant. The health care provider then gently palpates the patient’s pubic symphy-

sis and places ultrasound gel or a bladder scan gel pad midline on the patient’s abdomen about 1 to 1½ in (2.5 to 4 cm) above it. The probe is then placed on the gel with its directional icon toward the patient’s head and aimed toward the bladder. Pointing the probe slightly downward toward the coccyx provides an accurate view of the bladder for most patients. The scan button should then be pressed and released. The orientation of the probe is readjusted until the bladder image is centered. The volume of urine in the bladder is calculated by software, and the measurement is displayed. A volume greater than 200 ml is abnormal. The gel should be wiped from the patient’s skin or the gel pad discarded, and the patient made comfortable.

The health care provider should document any patient concerns that led to the scanning, the urine volume indicated, the patient’s response to the scan, any follow-up treatment, and whether the patient’s primary health care provider was contacted. SEE: *illus., Nursing Diagnoses Appendix*.

urinary system The organ system that includes the kidneys, ureters, bladder, and urethra. The kidneys form urine from blood plasma by filtration, reab-



URINARY RETENTION

(A) Massive distention of the bladder by two liters of urine. (B) After catheterization of the bladder.

sorption, and secretion. The formation of urine includes the excretion of waste products, but the kidneys also regulate the water and mineral content and the acid-base balance of the blood and all other body fluids. The other organs of the system are concerned with the elimination of urine after it has been formed.

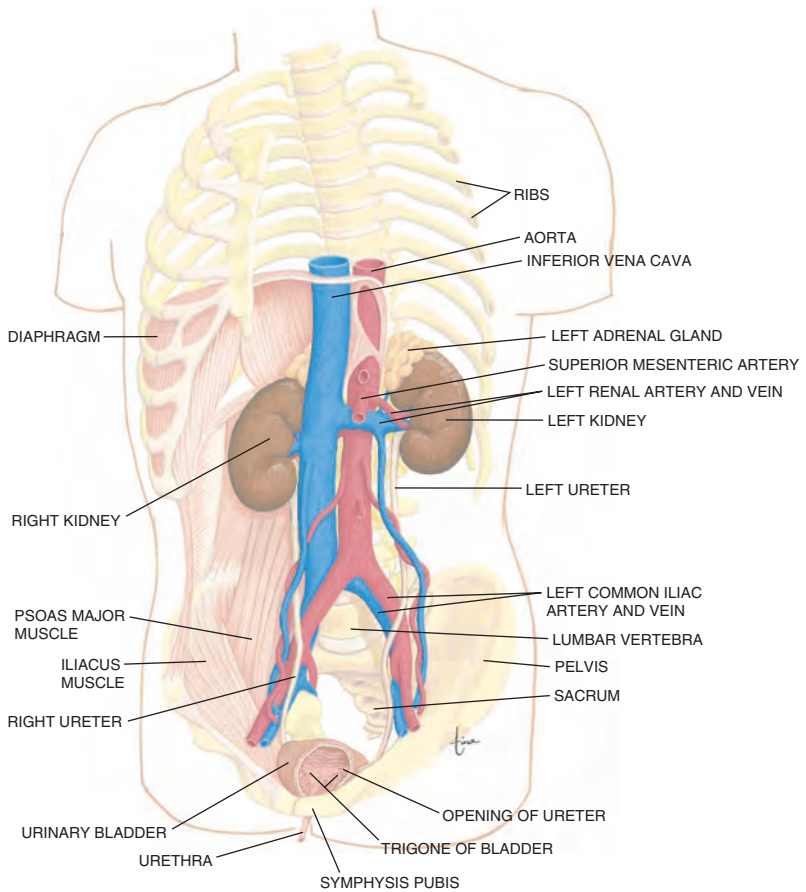
SEE: *illus.*

urinary tract infection ABBR: UTI. Infection of the kidneys, ureters, or bladder by microorganisms that either ascend from the urethra (95% of cases) or that spread to the kidney from the bloodstream (5%). About 7 million American patients visit health care providers each year because of UTIs. These infections commonly occur in otherwise healthy women, men with prostatic hypertrophy or bladder outlet obstruction, children with congenital anatomical abnormalities of the urinary tract, and patients with urinary stasis related to incomplete bladder emptying, neurogenic

bladder or indwelling bladder catheters. SEE: *clean-catch method; cystitis; pyelonephritis; urethritis.*

ETIOLOGY: *Escherichia coli* causes about 80% of all UTIs. In young women, *Staphylococcus saprophyticus* is also common. In men with prostate disease, enterococci are often responsible. The small remaining percentage of infections may be caused by *Klebsiella* species, *Proteus mirabilis*, *Staphylococcus aureus*, *Pseudomonas aeruginosa*, or other virulent organisms.

SYMPTOMS: The presenting symptoms of UTI vary enormously. Young patients with bladder infections may have pain with urination; urinary frequency or urgency, or both; pelvic or suprapubic discomfort; low-grade fevers; or a change in the appearance or odor of their urine (cloudy, malodorous, or rarely bloody). Older patients may present with fever, lethargy, confusion, delirium, or coma caused by urosepsis.



URINARY SYSTEM

Patients with pyelonephritis (an infection of the kidneys themselves) often complain of flank pain, prostration, nausea, vomiting, diarrhea, and high fevers with shaking chills. UTI may also be asymptomatic, esp. during pregnancy. Asymptomatic UTI during pregnancy is a contributing factor to maternal pyelonephritis, or fetal prematurity and stillbirth.

DIAGNOSIS: Urinalysis (obtained either as a clean catch or catheterized specimen) and subsequent urinary culture are used to determine the presence of UTI, the culprit microorganism, and the optimal antibiotic therapy. A dipstick test may identify leukocyte esterase and nitrite in a urinary specimen, strongly suggesting a UTI. The presence of more than 8 to 10 white blood cells per high-power field of spun urine also strongly suggests UTI, as does the presence of bacteria in an uncentrifuged urinary specimen.

TREATMENT: Sulfa drugs, nitrofurantoin, cephalosporins, or quinolones may be used for the outpatient treatment of UTIs while the results of cultures are pending. Patients sick enough to be hospitalized may also be treated with intravenous aminoglycosides, medicine to treat nausea and vomiting, and hydration. The duration of therapy and the precise antibiotics used depend on the responsible organism and the underlying condition of the patient. Patients with anatomical abnormalities of the urinary tract (e.g., children with ureteropelvic obstruction, or older men with bladder outlet obstruction) may sometimes require urological surgery.

RISK FACTORS: The following conditions predispose sexually active women to development of UTI: the use of a contraceptive diaphragm, the method of sexual intercourse (i.e., greatly prolonged or cunnilingus), and failure to void immediately following intercourse.

PREVENTION OF UTI IN YOUNG WOMEN: Fluid intake should be increased to and maintained at six to eight glasses daily. Although cranberry and other fruit juices are often recommended for patients with UTI, there is little objective evidence to show they have an impact. The urinary tract anesthetic phenazopyridine and sitz baths may provide relief from perineal discomfort. The anal area should be wiped from front to back or wipe the front first to prevent carrying bacteria to the urethral area; the bladder should be emptied shortly before and after intercourse; the genital area should be washed before intercourse; if vaginal dryness is a problem, water-soluble vaginal lubricants should be used before intercourse; a contraceptive diaphragm, cap, shield, or sponge should not remain

in the vagina longer than necessary. An alternative method of contraception should be considered.

PATIENT CARE: Patient teaching should emphasize self-care procedures and prevention of recurrent episodes. The antibiotic regimen should be explained, and the patient should be aware of signs and symptoms and, when they occur, should report them promptly to the primary caregiver.

urinate (ū'ri-nāt) [L. *urinare*, to discharge urine] To pass urine from the bladder. SYN: *micturate*.

urination (ū'ri-nā'shūn) [L. *urinatio*, a discharging of urine] The release of urine from the body. SYN: *micturition*; *uresis*.

DIFFERENTIAL DIAGNOSIS: Increased frequency is seen in polydipsia; polyuria; diabetes mellitus and diabetes insipidus; irritation of the bladder, urethra, or urinary meatus; diseases of the spinal cord; enlarged prostate in males; pregnancy in females; beer drinking; interstitial nephritis; use of medications (e.g., diuretics); and phimosis. Decreased frequency occurs after dehydration, sweating, diarrhea, or bleeding; and in anuria, oliguria, uremia, and anticholinergic drug use. SEE: *urine*.

urine (ū'rīn) [L. *urina*; Gr. *ouron*, urine] The fluid and dissolved solutes (including salts and nitrogen-containing waste products) that are eliminated from the body by the kidneys. SEE: *tables*.

COMPOSITION: Urine consists of approx. 95% water and 5% solids. Solids amount to 30 to 70 g/L and include the following (values are in grams per 24 hr unless otherwise noted): *Organic substances:* urea (10 to 30), uric acid (0.8 to 1.0), creatine (10 to 40 mg/24 hr in men and 10 to 270 mg/24 hr in women), creatinine (15 to 25 mg/kg of body weight per day), ammonia (0.5 to 1.3). *Inorganic substances:* chlorides (110 to 250 nmol/L depending on chloride intake), calcium (0.1 to 0.2), magnesium (3 to 5 nmol/24 hr), phosphorus (0.4 to 1.3). *Osmolarity:* 0.1 to 2.5 mOsm/L.

In addition to the foregoing, many other substances may be present depending on the diet and state of health of the individual. Among component substances indicating pathological states are abnormal amounts of albumin, glucose, ketone bodies, blood, pus, casts, and bacteria. SEE: *illus*.

double-voided u. A urine sample voided within 30 min after the patient has emptied the bladder.

midstream specimen of u. A urine specimen collected after the first few milliliters of urine are voided and discarded. SEE: *clean-catch method*.

residual u. Urine left in the bladder after urination, an abnormal occurrence

Significance of Changes in Urine

QUANTITY		
Normal	Abnormal	Significance
1000–3000 ml/day		Varies with fluid intake, food consumed, exercise, temperature, kidney function
	High (polyuria >3000 ml/day)	Diabetes insipidus, diabetes mellitus, water intoxication, chronic nephritis, diuretic use
	Low (oliguria)	Dehydration, hemorrhage, diarrhea, vomiting, urinary obstruction, or many intrinsic kidney diseases
	None (anuria)	Same as oliguria
COLOR		
Normal	Abnormal	Significance
Yellow to amber		Depends on concentration of urochrome pigment
	Pale	Dilute urine, diuretic effect
	Milky	Fat globules, pus, crystals
	Red	Drugs, blood or muscle pigments
	Green	Bile pigment (jaundiced patient)
	Brown-black	Toxins, hemorrhage, drugs, metabolites
HEMATURIA (blood in urine)		
Normal	Abnormal	Significance
0–2 RBC/high-powered field (hpf)		Normal (physiological) filtration
	3 or more RBCs/hpf	Extrarenal: urinary tract infections, cancers, or stones. Renal: infections, trauma, malignancies, glomerulopathies, polycystic kidneys
PYURIA (leukocytes in urine)		
Normal	Abnormal	Significance
0–9 leukocytes per hpf		
	10 or more leukocytes/hpf	Urinary tract infection, urethritis, vaginitis, urethral syndrome, pyelonephritis, and others
PROTEINURIA		
Normal	Abnormal	Significance
10–150 mg/day		
	30–300 mg/day of albumin	Indicative of initial glomerular leakage in diabetes mellitus or hypertension (microalbuminuria)
	>300 mg/day	Macroalbuminuria. Indicative of progressive kidney failure. Injury to glomeruli or tubulointerstitium of kidney.
	>3500 mg/day	Nephrotic range proteinuria. Evaluation may include kidney biopsy.

Table continued on following page

Significance of Changes in Urine (Continued)

SPECIFIC GRAVITY		
Normal	Abnormal	Significance
1.010–1.025		Varies with hydration
	1.010 (Low)	Excessive fluid intake, impaired kidney concentrating ability
	>1.025 (High)	Dehydration, hemorrhage, salt-wasting, diabetes mellitus, and others
ACIDITY		
Normal	Abnormal	Significance
Acid (slight)		Diet of acid-forming foods (meats, eggs, prunes, wheat) overbalances the base-forming foods (vegetables and fruits)
	High acidity	Acidosis, diabetes mellitus, many pathological disorders (fevers, starvation)
	Alkaline	Vegetarian diet changes urea into ammonium carbonate; infection or ingestion of alkaline compounds

that may accompany enlargement of the prostate. SYN: *postvoid residual*.

urino-, urin- Combining forms meaning *urine*. SEE: *uro-*.

urinoma (ū'rī-nō'mă) [ʹ + Gr. *oma*, mass] A cyst containing urine.

urinometer (ū'rī-nōm'ĕ-tēr) [ʹ + Gr. *metron*, measure] A device, a form of hydrometer, for determining the specific gravity of urine. SEE: *hydrometer*.

urinophil (ū'rī-nō-fil) [ʹ + Gr. *philein*, to love] Capable of existing in the urine, such as bacteria that grow well in the urinary bladder or in urine.

urinous, urinous (ū'rī-nōs, ū'rī-nūs) [L. *urina*, urine] Having the characteristics of or containing urine.

uriposia (ū'rī-pō'zē-ă) [ʹ + *posis*, drinking] Drinking of urine.

uro- [Gr. *ouron*, urine] Combining form meaning *urine*. SEE: *urino-*.

uroammoniac (ū'rō-ă-mō'nē-ăk) Containing urine and ammonia.

urobilin (ū'rō-bī'līn) [ʹ + L. *bilis*, bile] A brown pigment formed by the oxidation of urobilinogen, a decomposition product of bilirubin. Urobilin may be formed from the urobilinogen in stools or in urine after exposure to air.

urobilinemia (ū'rō-bī'līn-ĕ-mē-ă) [ʹ + " + Gr. *haima*, blood] Urobilin in the blood.

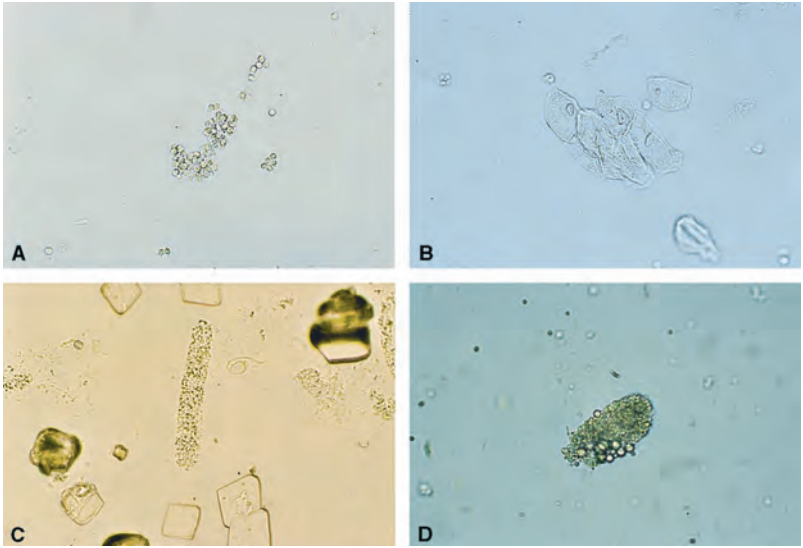
urobilinicterus (ū'rō-bī'līn-ĭk'tēr-ŭs) [ʹ + L. *bilis*, bile, + Gr. *ikteros*, jaundice] Jaundice resulting from urobilinemia.

urobilinogen (ū'rō-bī'līn'ō-jĕn) [ʹ + " + Gr. *gennan*, to produce] A colorless derivative of bilirubin, from which it is formed by the action of intestinal bacteria.

urobilinogenemia (ū'rō-bī'līn-ō-jĕn-ĕ-mē-ă)

Common Disorders of Urination

Anuria	Complete (or nearly complete) absence of urination
Diversion	Drainage of urine through a surgically constructed passage (e.g., a ureterostomy or ileal conduit)
Dysuria	Painful or difficult urination (e.g., in urethritis, urethral stricture, urinary tract infection, prostatic hyperplasia, or bladder atony)
Enuresis	Involuntary discharge of urine, esp. by children at night (bedwetting)
Incontinence	Loss of control over urination from any cause (e.g., from involuntary relaxation of urinary sphincter muscles or overflow from a full or paralyzed bladder)
Nocturia	Excessive urination at night
Oliguria	Decreased urinary output (usually less than 500 ml/day), often associated with dehydration, shock, hemorrhage, acute renal failure, or other conditions in which renal perfusion or renal output are impaired
Polyuria	Increased urinary output (usually more than 3000 ml/day), such as occurs in diabetes mellitus, diabetes insipidus, and diuresis



URINE

(A) white blood cells, (B) squamous epithelial cells, (C) granular cast and uric crystals, (D) fat body ($\times 400$)

[" + " + " + *haima*, blood] Urobilinogen in the blood.

urobilinuria (ū'rō-bī'lin-ū'rē-ā) [" + " + Gr. *ouron*, urine] Excess of urobilin in the urine.

urocele (ū'rō-sēl) [" + *kele*, tumor, swelling] Escape of urine into the scrotum. SYN: *uroscheocele*.

urochesia (ū-rō-kē'zē-ā) [" + *chezein*, to defecate] A discharge of urine in the feces.

urochrome (ū'rō-krōm) [" + *chroma*, color] The pigment that gives urine its characteristic color. It is derived from urobilin.

urocortin (ūr'ō-kōr'tin) Any of a family of neuropeptides functionally related to corticotropin-releasing hormone that decreases appetite, delays gastric emptying, and decreases distal colonic motility

urocyanin (ū-rō-sī-ā-nin) [" + *kyanos*, blue] A blue pigment present in the urine in certain diseases.

urocyanogen (ū'rō-sī-ān-ō-jēn) [" + " + *gennan*, to produce] A blue pigment in urine, esp. in cholera patients.

urocyanosis (ū'rō-sī-ān-ō'sis) [" + " + *osis*, condition] Blue discoloration of the urine; possibly due to the presence of indigo blue from oxidation of indican or to ingestion of drugs such as methylene blue. SEE: *indicanuria*.

urodynamics (ūr'ō-dī-nām'iks) The study of the holding or storage of urine in the bladder, the facility with which it empties,

and the rate of movement of urine out of the bladder during micturition.

urodynia (ū'rō-dīn-ē-ā) [" + *odyne*, pain] Pain associated with urination.

uroerythrin (ū'rō-ēr'ith-rin) [" + *erythros*, red] A reddish pigment sometimes present in urine.

uroflavin (ū'rō-flā'vin) A fluorescent compound present in the urine of persons taking riboflavin.

uroflow (ūr'ū-flō) [G. *ourikos*, urine, AS. *flowan*, to flow] The volume of urine voided in a specified period. Low flow rates associated with high bladder pressures occur in bladder outlet obstruction.

uroflowmeter (ūr'ō-flō'mē'tēr) A device for recording urine flow; used to quantify obstruction to urine flowing from the bladder.

uroflowmetry (ū'rō-flō'mē-trē) Timed measurement of the rate of urination. Uroflowmetry is used to diagnose conditions that result in slow urinary output, e.g., bladder outlet obstruction resulting from enlargement of the prostate gland. The maximal volume of urinary flow over time is called the Q_{max} . A Q_{max} of less than 10 ml of urine/second is an indication of significantly reduced urinary output.

urofusin (ū'rō-fūs'in) [" + L. *fuscus*, dark brown] A red-brown pigment sometimes found in samples of urine, esp. in cases of porphyria.

urofuscohematin (ūr'ō-fūs'kō-hēm'āt-in) [" + " + Gr. *haima*, blood] A red-

dish-brown pigment in urine in some diseases.

urogastrone (ū'rō-gās'trōn) [*u* + *gaster*, belly] A polypeptide present in urine that has an inhibitory effect on gastric secretion.

urogenital (ū'rō-jěn'ī-tāl) [*u* + *L. genitalia*, genitals] Pert. to the urinary and reproductive organs.

urogenital system Genitourinary system.

urogenous (ū-rōj'ēn-ūs) [*u* + *gennan*, to produce] **1.** Producing urine. **2.** Originating in urine.

urogram (ū'rō-grām) [*u* + *gramma*, something written] A radiograph of the urinary tract.

urography (ū'rōg'rā-fē) [Gr. *ouron*, urine, + *graphein*, to write] Radiography of the urinary tract after the introduction of a contrast medium.

ascending u. Urography in which the radiopaque contrast agent is injected into the bladder during cystoscopy. SYN: *cystoscopic urography*; *retrograde urography*.

cystoscopic u. Ascending u.

descending u. Urography in which an injected contrast agent is excreted by the kidney and studied by x-ray examination during excretion. SYN: *excretory urography*; *intravenous urography*.

excretory u. Descending u.

intravenous u. Descending u.

retrograde u. Ascending u.

urohematin (ū'rō-hēm'āt-in) [*u* + *haima*, blood] Pigment in urine, considered as identical with hematin, that alters the color of urine in proportion to the degree of oxidation.

urohematonephrosis (ū'rō-hēm'ā-tō-nē-frō'sīs) [*u* + " + *nephros*, kidney] A pathological condition of the kidney in which the pelvis is distended with blood and urine.

urohematoporphyrin (ū'rō-hēm'ā-tō-por'fir-in) [*u* + " + *porphyra*, purple] Iron-free hematin in urine when intravascular hemolysis occurs.

urokinetic (ū'rō-kī-nēt'ik) [*u* + *kinesis*, movement] Resulting reflexly from stimulation of the urinary organs.

urolognia (ū-rō-lāg'nē-ā) [*u* + *lagneia*, lust] Sexual excitation associated with urine or urination (e.g., watching another person urinate or having another person urinate on one's own body).

urolith (ū'rō-lith) [*u* + *lithos*, stone] A concretion in the urine.

urolithiasis (ū'rō-li-thī'ās-īs) [*u* + " + *-iasis*, condition] The formation of kidney stones. SEE: *Nursing Diagnoses Appendix*.

urolithic (ū'rō-lith'ik) Concerning kidney stones.

urological (ū-rō-lōj'ik-āl) [*u* + *logos*, word, reason] Pert. to urology.

urologist (ū-rōl'ō-jist) A physician who specializes in the practice of urology.

urology (ū-rōl'ō-jē) [*u* + *logos*, word, reason] The branch of medicine concerned with the urinary tract in both sexes and the male genital tract.

urolostein (ū-rō-lū'tē-in) [*u* + *L. luteus*, yellow] A yellow pigment seen in the urine.

uromedulin, human (ū'rō-mēd'ū-līn) The most abundant protein of renal origin in normal urine. This glycoprotein is the same protein termed Tamm-Horsfall mucoprotein. SEE: *mucoprotein*, *Tamm-Horsfall*.

uromelanin (ū-rō-mēl'ān-in) [*u* + *melas*, black] A black pigment occurring in urine resulting from the decomposition of urochrome.

uronephrosis (ū'rō-nēf-rō'sīs) [*u* + *nephros*, kidney, + *osis*, condition] Dilatation of the renal structures from obstruction of the urinary flow; distention of the renal pelvis and tubules with urine. SYN: *hydronephrosis*.

uropathogen (ū'rō-pāth'ō-jēn) [*u* + *pathos*, disease, suffering, + *gennan*, to produce] A microorganism capable of causing disease of the urinary tract.

uropathy (ū-rōp'ā-thē) Any disease affecting the urinary tract.

obstructive u. Any disease that blocks the flow of urine (e.g., prostatic hyperplasia).

uropepsin (ū'rō-pēp'sin) The end product of pepsin metabolism. It is excreted in the urine.

urophein, urophaein (ū'rō-fē'in) [*u* + *phaios*, gray] Gray pigment sometimes found in urine.

urophosphometer (ū'rō-fōs-fōm'ē-tēr) [*u* + *L. phosphas*, phosphorus] A device for estimating the amount of phosphorus in the urine.

uroporphyrin (ū'rō-por'fir'ē-ā) Porphyrin in which an excess amount of uroporphyrin is excreted in the urine.

uroporphyrin (ū'rō-por'fir-in) A red pigment present in the urine and feces in cases of porphyria; may also be present in the urine of persons taking certain drugs.

uroporphyrinogen (ū'rō-por'fir-in'ō-jēn) Any one of several porphyrins that are the precursors of uroporphyrins.

u. An abnormal isomer of a precursor of protoporphyrin, which accumulates in one form of porphyria. It causes the urine to be red, the teeth to fluoresce brightly in ultraviolet light, and the skin to be abnormally sensitive to sunlight. This is observed in congenital erythropoietic porphyria.

uropsammus (ū'rō-sām'ūs) [*u* + *psamos*, sand] Gravel or calcified sediment in the urine.

uropyoureter (ū'rō-pī'ō-ū-rē'tēr) [*u* + " + *oureter*, ureter] Accumulation of urine and pus in the ureter.

uroscheocele (ū-rōs'kē-ō-sēl) [*u* + *os-*

cheon, scrotum, + *kele*, tumor, swelling] Urocele.

uroschesis (ū-rōs'kēs-ĭs) [ʹ + *schesis*, a holding] **1.** Suppression of urine. **2.** Retention of urine.

uroscopy (ū-rōs'kō-pē) [ʹ + *skopein*, to examine] **1.** Examination of the urine. **2.** Diagnosis by examination of the urine.

urothelium (ū'rō-thēl'ē-ūm) The endothelium that lines the urinary tract, extending from the renal calyces, through the ureters, to the urinary bladder. **urothelial** (ū'rō-thē'lē-āl), *adj.*

uroreter (ū'rō-ū-rē-tēr, ū'rō-ū-rē'tēr) [ʹ + *oureter*, ureter] Distention of the ureter with urine caused by stricture or obstruction.

uroxanthin (ū'rō-zān'thĭn) [ʹ + *xanthos*, yellow] Yellow pigment of the urine; an indigo-forming substance.

uroxin (ū-rōk'sĭn) [ʹ + *oxys*, sharp] Alloxantin, a derivative of alloxan.

urtica (ūr-tĭ'kā) *pl. urticae* [L., nettle] *Wheat.*

Urtica dioica (dī-ō'ĭ-kā, dē-) The scientific name for the stinging nettle, an herb used to treat allergic conditions such as allergic rhinitis. Exposure to the herb can cause a rash. Extracts made from it are promoted for their diuretic effects.

urticant (ūr'tĭ-kānt) That which causes hives.

urticaria (ūr-tĭ-kā-rē-ā) [L. *urtica*, nettle] An allergic reaction marked by multiple discrete swellings on the skin (wheals) that are intensely itchy and last up to 24 hr. The wheals appear primarily on the chest, back, extremities, face, or scalp. SYN: *hives*. SEE: *illus.; allergy; angioedema*.



URTICARIA

ETIOLOGY: Urticaria is caused by vasodilation and increased permeability of capillaries of the skin due to the release by mast cells of vasoactive mediators. The mast cell degranulation is due to an

immunoglobulin E-mediated reaction to allergens (e.g., foods, drugs, or drug additives), heat, cold, and, rarely, infections or emotions. Urticaria is a primary sign of local and systemic anaphylactic reactions. It affects people of all ages but is most common between the ages 20 and 40. Angioedema is frequently associated with urticaria.

TREATMENT: Drugs that block histamine-1 (H_1) receptors (antihistamines) are the primary treatment for urticaria. The use of both H_1 and H_2 receptor blockers has been recommended but has not been proven more effective. Patients should avoid identified allergens. Corticosteroids are not usually used.

aquagenic u. Urticaria caused by exposure of the skin to water.

u. bullosa Eruption of temporary vesicles with infusion of fluid under the epidermis.

cholinergic u. Urticaria that develops after exposure to high ambient temperatures (e.g., after exercise, a warm shower or bath, or during a fever). The hives that develop are typically small (1 to 3 mm) and are often surrounded by erythema. SYN: *generalized heat urticaria*.

chronic u. Urticaria that occurs frequently for 6 weeks or more. It is often associated with autoimmune disease.

cold u. Cold-induced urticaria that may progress to angioedema.

u. factitia Urticaria following slight irritation of the skin.

generalized heat u. Cholinergic urticaria.

giant u. Angioedema.

u. medicamentosa Urticaria caused by an allergic reaction to a drug (e.g., a sulfa drug).

papular u. Urticaria in which the wheal is followed by a lingering papule and considerable itching. It is most commonly observed in debilitated children. SYN: *prurigo simplex*.

physical u. Urticaria due to the direct effects of physical forces on the skin. Cold temperature (cold urticaria), pressure (pressure urticaria), ultraviolet radiation (solar urticaria), and scratching (dermographism) are some causes of physical urticaria.

u. pigmentosa Urticaria characterized by persistent, pigmented maculopapular lesions that urticate when stroked (Darier's sign). It typically occurs in childhood. Biopsy reveals infiltration by mast cells.

pressure u. Urticaria produced by pressure perpendicular to the surface of the skin. The persistent red swelling appears after a delay of 1 to 4 hr.

solar u. Urticaria occurring in certain people after exposure to sunlight.

urticate (ūr'tĭ-kāt) **1.** To produce urti-

caria. 2. Marked by the appearance of wheals.

urushiol (ū-roo' shē-ōl') [Japanese *urushi*, lac, + *L. oleum*, oil] The principal toxic irritant substance of plants such as poison ivy, which produces characteristic severe dermatitis on contact.

USAEC *United States Atomic Energy Commission*.

USAN *United States Adopted Names* (for drugs).

USAN and the USP Dictionary of Drug Names A dictionary of nonproprietary names, brand names, code designations, and Chemical Abstracts Service registry numbers for drugs.

USDA *United States Department of Agriculture*.

USDA organic A USDA designation for food that specifies that 95% of its components are organic.

usenet A world-wide collection of user-submitted notes or messages on various subjects that are posted to servers on the Internet.

Usher's syndrome (ūsh' ērz) [Charles Howard Usher, Brit. ophthalmologist, 1865–1942] An autosomal recessive disorder marked by a combination of congenital sensorineural deafness and retinitis pigmentosa that results in a gradual loss of vision. One variant of the syndrome also interferes with normal balance. SEE: *retinitis pigmentosa*.

USP, US Phar *United States Pharmacopeia*.

USPHS *United States Public Health Service*.

USP-PRN *United States Pharmacopeia-Practitioners' Reporting Network*.

USP unit Any unit specified in the U.S. Pharmacopeia.

Ustilago (ūs-tīl-ā' gō) A mold parasite of plants, commonly called smut, which renders grains unfit to eat.

uta (ū'tā) American leishmaniasis.

Utah Elbow (ū'tah) A myoelectric prosthesis that uses an electrode and microprocessors to control both the elbow and the terminal device. The system is also designed to permit a natural elbow swing during walking.

uter- SEE: *utero-*.

uteralgia (ū'tēr-āl' jē-ā) [L. *uterus*, womb, + Gr. *algos*, pain] Uterine pain.

uterectomy (ū'tēr-ēk'tō-mē) [+ Gr. *ektome*, excision] Hysterectomy.

uterine (ū'tēr-īn, -īn) [L. *uterinus*] Pert. to the uterus.

uterine artery Doppler velocimetry SEE: *Doppler echocardiography*.

uterine factor (ūt' ā-rīn', -rīn) Any abnormality of the uterus that produces infertility.

uterine tube Fallopian tube.

utero-, uter- Combining forms meaning *uterus*. SEE: *hystero-*; *metro-*.

uteroabdominal (ū'tēr-ō-āb-dōm' ī-nāl)

[L. *uterus*, womb, + *abdomen*, belly] Pert. to both the uterus and abdomen.

uterocele (ū-tēr'ō-sēl) [+ Gr. *kele*, tumor, swelling] Hernia containing the uterus.

utero cervical (ū'tēr-ō-sēr' vī-kāl) [+ *cervix*, neck] Rel. to the uterus and cervix.

uterozystostomy (ū'tēr-ō-sīs-tōs'tō-mē) [+ Gr. *kystis*, bladder, + *stoma*, mouth] The formation of a passage between the uterine cervix and the bladder.

uterofixation (ū'tēr-ō-fīks-ā' shūn) [+ *fixatio*, a fixing] Fixation of a displaced uterus.

uterography (ū'tēr-ōg' rā-fē) [+ Gr. *graphein*, to write] Hysteroogram.

uterolith (ū'tēr-ō-līth) [+ Gr. *lithos*, stone] A uterine stone.

uterometer (ū'tēr-ōm' ēt-er) [+ Gr. *metron*, measure] Hysterometer.

uteroovarian (ū'tēr-ō-ō-vā' rē-ān) [+ L. *ovarium*, ovary] Rel. to the uterus and ovary.

uteropexia, uteropexy (ū'tēr-ō-pēks' ē-ā, ū'tēr-ō-pēks' ē) [+ Gr. *pexis*, fixation] Fixation of the uterus to the abdominal wall.

uteroplacental (ū'tēr-ō-plā-sēn' tāl) [+ *placenta*, a flat cake] Rel. to the placenta and uterus.

uteroplasty (ū'tēr-ō-plās'tē) [+ Gr. *plassein*, to form] Plastic surgery of the uterus. SYN: *metroplasty*.

uterorectal (ū'tēr-ō-rēk' tāl) Concerning the uterus and rectum.

uterosacral (ū'tēr-ō-sā' krāl) [+ *sacralis*, pert. to the sacrum] Rel. to the uterus and sacrum.

uterosalpingography (ū'tēr-ō-sāl-pīng-ōg' rā-fē) [+ Gr. *salpinx*, tube, + *graphein*, to write] Radiography of the uterus and fallopian tubes after the introduction of a contrast medium. SYN: *hysterosalpingography*.

uterotomy (ū-tēr-ōt'ō-mē) Incision of the uterus.

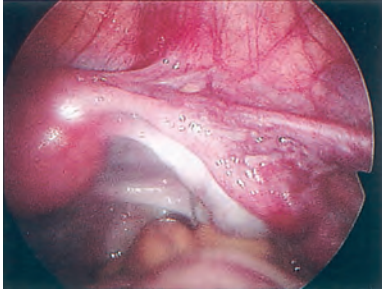
uterotractor (ū'tēr-ō-trāk'tor) [+ *tractor*, drawer] An instrument for applying traction to the cervix uteri.

uterotubal (ū'tēr-ō-tū' bāl) [+ *tuba*, tube] Relating to the uterus and oviducts.

utero vaginal (ū'tēr-ō-vāj' ī-nāl) [+ *vagina*, sheath] Rel. to the uterus and vagina.

uterus (ū'tēr-ūs) [L.] A reproductive organ for containing and nourishing the embryo and fetus from the time the fertilized egg is implanted to the time the fetus is born. SYN: *womb*. SEE: *illus*; *genitalia*, *female* for *illus*.

ANATOMY: The uterus is a muscular, hollow, pear-shaped organ situated in the midpelvis between the sacrum and the pubic symphysis. Before child-bearing, it is about 3 in. (7.5 cm) long, 2 in. (5 cm) wide, and 1 in. (2.5 cm) thick. Its



UTERUS

Uterus and its ligaments seen laparoscopically ($\times 1/3$)

upper surface is covered by peritoneum called the perimetrium, and it is supported by the pelvic diaphragm supplemented by the two broad ligaments, two round ligaments, and two uterosacral ligaments. It is usually anteflexed, or tilted forward, over the top of the urinary bladder. The upper portion of the uterus, between the openings of the fallopian tubes, is the fundus; the large central portion is the body; and the narrow lower end is the cervix, which projects into the vagina. The cavity of the uterus is widest in the fundus. The canal of the cervix is narrow, opens into the uterine cavity at the internal os, and into the vagina at the external os.

The wall of the uterus consists of the outer perimetrium, middle myometrium, and inner endometrium. The perimetrium is the visceral peritoneum that covers the uterus, except for the portion that rests on the bladder and the vaginal part of the cervix. The thick myometrium is smooth muscle that contracts for labor and delivery. The endometrium is the vascular lining that can become the placenta for nourishment of the embryo-fetus; it is thin before puberty; grows and is shed cyclically during childbearing years, and degenerates after menopause. The uterine and ovarian arteries supply blood to the uterus.

POSITIONS: *Anteflexion:* The uterus bends forward. *Anteversio:* The fundus is displaced forward toward the pubis, while the cervix is tilted up toward the sacrum. *Retroflexion:* The uterus bends backward at the junction of the body and the cervix. *Retroversion:* The uterus inclines backward with retention of the normal curve; this position is the opposite of anteversion. SEE: *hysterectomy; pregnancy.*

u. acollis A uterus without a cervix.

u. arcuatus A uterus with a depressed arched fundus.

u. bicornis A uterus in which the fundus is divided into two parts.

u. biforis A uterus in which the ex-

ternal os is divided into two parts by a septum.

u. bilocularis A uterus in which the cavity is divided into two parts by a partition.

bipartite u. A uterus in which the body is partially divided by a median septum.

cancer of u. A malignant neoplasm of the uterus, suggested by size, intermittent bleeding, purulent discharge, and detected by vaginal or Papanicolaou smear, or cervical or endometrial biopsy. Cancer may produce sterility, abortion, hemorrhage, or sepsis. SEE: *the Bethesda System; cancer cervical intraepithelial neoplasia.*

u. cordiformis A heart-shaped uterus.

u. didelphys Double uterus.

u. duplex A double uterus resulting from failure of union of müllerian ducts.

fetal u. A uterus that is retarded in development and possesses an extremely long cervical canal.

fibroids of u. Uterine leiomyoma.

gravid u. A pregnant uterus.

u. parvicollis A normal uterus with a disproportionately small vaginal portion.

prolapse of u. A condition in which a defective pelvic floor allows the uterus or part of it to protrude out of the vagina. In first-degree uterine prolapse, the cervix uteri reaches down to the vaginal introitus. In second-degree uterine prolapse, it protrudes out from the vagina. In third-degree uterine prolapse, the entire uterus lies outside of the vagina. SYN: *descensus uteri.* SEE: *prolidentia.*

ETIOLOGY: This condition may be congenital or acquired; most often, however, it is acquired. The etiological factors are congenital weakness of the uterine supports and injury to the pelvic floor or uterine supports during childbirth.

SYMPTOMS: The condition is most often seen following instrumental deliveries or when the patient has been allowed to bear down during labor before the cervix is fully dilated. Frequently associated with this is a prolapse of the anterior and posterior vaginal walls, as seen in cystocele and rectocele. In the early stages, there are dragging sensations in the lower abdomen, back pain while standing and on exertion, a sensation of weight and bearing down in the perineum, and frequency of urination and incontinence of urine in cases associated with cystocele. In the later stages, a protrusion or swelling at the vulva is noticed on standing or straining, and leukorrhea is present. In prolidentia, there is frequently pain on walking, an inability to urinate unless the mass is reduced, and cystitis.

TREATMENT: The treatment depends on the age of the patient, the degree of prolapse, and the associated pathology. Abdominal surgery with fixation of the uterus is required if the prolapse is complete.

pubescent u. An adult uterus that resembles that of a prepubertal female.

rupture of u. in pregnancy SEE: under *rupture*; *Nursing Diagnoses Appendix*.

subinvolution of u. The lack of involution of the uterus following childbirth, manifested by a large uterus (greater than 100 g) and a continuation of lochia rubra beyond the usual time. It is caused usually by puerperal infection, overdistention of the uterus by multiple pregnancy or polyhydramnios, lack of lactation, malposition of the uterus, and retained secundines. Involution is aided by the certainty that the placenta is intact at the time of delivery and the use of ecbolics to cause uterine contraction.

tumors of u. Uterine neoplasia, which may cause sterility or abortion or obstruct labor; they may become infected or twisted on their attachments. SEE: *cancer of uterus*; *endometrioma*; *uterine fibroma*.

u. unicornis A uterus possessing only one lateral half and usually having only one uterine tube. About 20% to 30% of women who have this structural abnormality also experience repeated spontaneous abortion during early pregnancy.

utilization behavior The compulsive or thoughtless use of any found object even though its use is not appropriate for the context in which it was found. Finding a toothbrush in a grocery store and automatically using it to brush one's teeth in public is an example.

utilization review Evaluation of the necessity, quality, effectiveness, or efficiency of medical services, procedures, and facilities. In regard to a hospital, the review includes appropriateness of admission, services ordered and provided, length of stay, and discharge practices.

utricle (ū'trīk'l) [L. *utriculus*, a little bag] **1.** A small sac. **2.** The larger of two sacs of the vestibular labyrinth in the vestibule of the inner ear. It communicates with the semicircular ducts, the saccule, and the endolymphatic duct, all of which are filled with endolymph. In its wall is the macula utriculi, a sensory area with hair cells that respond to movement of otoliths as the position of the head changes.

prostatic u. A small blind pouch of the urethra extending into the substance of the prostate gland. It is a remnant of the embryonic müllerian duct. The ejaculatory duct opens into or at the opening of the prostatic utricle.

utricular (ū-trīk'ū-lār) [L. *utriculus*, a little bag] **1.** Pert. to the utricle. **2.** Like a bladder.

utriculitis (ū-trīk'ū-lī'tīs) [l' + Gr. *itis*, inflammation] Inflammation of the utricle, that of either the vestibule or the prostate.

utriculoplasty (ū-trīk'ū-lō-plās'tē) [l' + Gr. *plassein*, to form] Surgical reduction of the size of the uterus by excision of a longitudinal wedge-shaped section.

uva-ursi (ū'vā-ūr'sē) An evergreen perennial shrub, *Arctostaphylos uva-ursi* (family Ericaceae)—commonly known as bearberry—whose dried leaves are used as a urinary antiseptic and diuretic. There have been few clinical trials on its effectiveness.

uvea (ū'vĕ-ă) [L. *uva*, grape] The highly vascular middle layer of the eyeball, immediately beneath the sclera. It consists of the iris, ciliary body, and choroid, and forms the pigmented layer.

uveal (ū'vĕ-āl) Pert. to the middle layer of the eye, or uvea.

uveitic (ū-vĕ-ī'tīk) [l' + Gr. *itis*, inflammation] Marked by or pert. to uveitis.

uveitis (ū-vĕ-ī'tīs) A nonspecific term for any intraocular inflammatory disorder. The uveal tract structures—iris, ciliary body, and choroid—are usually involved, but other nonuveal parts of the eye, including the retina and cornea, may be involved.

Uveitis that is not associated with known infections or that is associated with diseases of unknown cause is termed endogenous uveitis. This is thought to be due to an autoimmune phenomenon.

TREATMENT: Corticosteroids and other immunosuppressive agents, including cyclosporine, are used in treating some causes of uveitis, but their use may make some types of uveitis worse.

Short-acting cycloplegic agents such as hematomine, scopolamine, or cyclopentolate are used during therapy to prevent inflammatory adhesions (posterior synechiae) between the iris and lens.

diffuse u. Panuveitis.

intermediate u. Pars planitis.

sympathetic u. Severe, bilateral uveitis that starts as inflammation of the uveal tract of one eye resulting from a puncture wound. The injured eye is termed the "exciting eye." SEE: *sympathetic ophthalmia*.

TREATMENT: High-dose corticosteroids are often effective.

uveitis-glaucoma-hypHEMA syndrome ABBR: UGH. A rare complication of cataract surgery with intraocular lens implantation in which patients experience brief episodes of visual loss affecting a single eye, typically months or years after cataract surgery.

uveoparotitis (ū'vĕ-ō-pār-ō-tī'tīs) [l' +

- Gr. *para*, beside, + *ous*, ear, + *itis*, inflammation] Inflammation of the parotid gland and uveitis.
- uveoplasty** (ū'vē-ō-plās'tē) ["] + Gr. *plassein*, to form] Reparative operation of the uvea.
- uveoscleritis** (ū'vē-ō-skler-ī'tis) Inflammation of the sclera in which the infection has spread from the uvea.
- uviform** (ū'vī-form) ["] + *forma*, form] Shaped like a grape.
- uviofast** (ū'vē-ō-fāst) Uvioreistant.
- uviol** (ū'vē-ōl) Glass that is unusually transparent to ultraviolet rays.
- uvioresistant** (ū'vē-ō-rē-zis'tānt) Resistant to the effects of ultraviolet radiation. SYN: *uviofast*.
- uviosensitive** (ū'vē-ō-sēn'sī-tīv) Sensitive to the effects of ultraviolet radiation.
- uvula** (ū'vū-lā) [L. *uvula*, a little grape]
1. The free edge of the soft palate that hangs at the back of the throat above the root of the tongue; it is made of muscle, connective tissue, and mucous membrane. 2. Any small projection.
 - u. fissa* A cleft uvula.
 - u. vermis* A small, triangular elevation on the vermis of the cerebellum of the brain.
 - u. vesicae* A median projection of mucous membrane of the urinary bladder located immediately anterior to the orifice of the urethra.
- uvular** (ū'vū-lār) [L. *uvula*, little grape] Pert. to the uvula.
- uvularis** (ū'vū-lā'rīs) [L.] The azygos uvulae muscle.
- uvulectomy** (ū'vū-lēk'tō-mē) ["] + Gr. *ektome*, excision] Surgical removal of the uvula.
- uvulitis** (ū'vū-lī'tis) ["] + Gr. *itis*, inflammation] Inflammation of the uvula.
- uvulopalatopharyngoplasty** (ū'vū-lō-pāl'ā-tō-fā-rīn'gō-plās'tē) ABBR: UPPP. Plastic surgery of the oropharynx in which redundant soft palate, uvula, pillars, fauces, and sometimes posterior pharyngeal wall mucosa are removed. The procedure may be done by using laser therapy. It is usually done to correct intractable snoring or sleep apnea. SEE: *sleep disorder*; *snore*.
- uvuloptosis** (ū'vū-lōp-tō'sīs) ["] + Gr. *ptosis*, a dropping] A relaxed and pendulous condition of the palate. SYN: *uvulaptosis*.
- U wave** In the electrocardiogram, a low-amplitude deflection that follows the T wave. It is exaggerated in hypokalemia and with digitalis use, and negative in ventricular hypertrophy. SEE: *QRST complex*; *electrocardiogram*.