



**X** Symbol for Kienböck's unit of x-ray dose; symbol for xanthine.

**Xalatan** Latanoprost.

**Xanax** Alprazolam.

**xanthelasma** (zăn'thêl-ăz'mă) [Gr. *xanthos*, yellow, + *elasma*, plate] A yellow, lipid-rich plaque (a xanthoma) present on the eyelids, esp. near the inner canthus. **SEE:** *illus.*



#### XANTHELASMA

**xanthematin** (zăn-thêm'ă-tîn) A yellow substance produced by the action of nitric acid on hematin.

**xanthemia** (zăn-thê'mê-ă) [ʹ + *haima*, blood] Carotenemia.

**xanthene** (zăn'thên) A crystalline compound,  $O=(C_6H_4)_2=CH_2$ , from which various dyes are formed, including rhodamine and fluorescein.

**xanthic** (zăn'thik) [Gr. *xanthos*, yellow]  
1. Yellow. 2. Pert. to xanthine.

**xanthine** (zăn'thîn, -thên) A nitrogenous compound present in muscle tissue, liver, spleen, pancreas, and other organs, and in the urine. It is formed during the degradation of adenosine monophosphate to uric acid.

*dimethyl-x.* Theobromine.

**xanthine base** A group of chemical compounds including xanthine, hypoxanthine, uric acid, and theobromine, which have a purine as their base. **SYN:** *purine base.*

**xanthinuria, xanthiuria** (zăn'thên'ür'ê-ă, zăn'thê-ür'rê-ă) The excretion of large amounts of xanthine in the urine. **SYN:** *xanthuria.*

**xanthochromia** (zăn'thō-krō'mê-ă) [ʹ + *chroma*, color] Yellow discoloration, as of the skin in patches or of the cerebrospinal fluid, resembling jaundice.

**xanthochromic** (zăn'thō-krō'mîk) 1. Pert. to anything yellow. 2. Pert. to xanthochromia.

**xanthocyanopia, xanthocyanopsia** (zăn'thō-sī-ăn-ō'pê-ă, -ōp'sê-ă) [Gr. *xanthos*, yellow, + *kyanos*, blue, + *opsis*, sight] A form of color blindness in which yellow and blue are distinguishable, but not red and green. **SYN:** *xanthokyanopy.*

**xanthocyte** (zăn'thō-sīt) [ʹ + *kytos*, cell] A cell containing yellow pigment.

**xanthoderma** (zăn'thō-dêr'mă) [ʹ + *derma*, skin] Yellowness of the skin.

**xanthodont** (zăn'thō-dōnt) [ʹ + *odous*, tooth] An individual who has yellow teeth.

**xanthogranuloma** (zăn'thō-grăn'ū-lō'mă) [ʹ + L. *granulum*, grain, + *oma*, tumor] A tumor having characteristics of both an infectious granuloma and a xanthoma.

**juvenile x.** A skin disease that may be present at birth or develop in the first months of life. Firm dome-shaped yellow, pink, or orange papules, ranging from a few millimeters to 4 cm in diameter, are usually present on the scalp, face, and upper trunk. Biopsy of these lesions reveals lipid-filled histiocytes, inflammatory cells, and Touton giant cells (multinucleated vacuolated cells with a wreath of nuclei and peripheral rim of foamy cytoplasm). The lesions regress spontaneously during the first years of life. Juvenile xanthogranuloma of the iris is one of the most common causes of bleeding into the anterior chamber of the eye in childhood.

**xanthokyanopy** (zăn'thō-kī-ăn'ō-pê) [ʹ + *kyanos*, blue, + *opsis*, sight] Xanthocyanopia.

**xanthoma** (zăn'thō'mă) [Gr. *xanthos*, yellow, + *oma*, tumor] Soft, yellow skin plaques or nodules that contain deposits of lipoproteins inside histiocytes; they are esp. likely to be found on the skin of patients with hyperlipidemia.

**diabetic x.** A yellow fatty skin deposit associated with uncontrolled diabetes mellitus.

**x. disseminatum** A condition characterized by the presence of xanthomata throughout the body, esp. on the face, in tendon sheaths, and in mucous membranes. **SEE:** *Hand-Schüller-Christian disease.*

**x. multiplex** Xanthomata all over the body.

**x. palpebrarum** Xanthoma affecting the eyelids.

**x. tuberosum** A form of xanthoma that may appear on the neck, shoulders, trunk, or extremities, consisting of small elastic and yellowish nodules.

**xanthomatosis** (zăn"thō-mă-tō'sis) [" + " + *osis*, condition] A condition in which there is a deposition of lipid in tissues, usually accompanied by hyperlipemia. Cholesterol may accumulate in tumor nodules (xanthoma) or in individual cells, esp. histiocytes and reticulo-endothelial cells.

**xanthomatous** (zăn-thō'mă-tūs) Concerning xanthoma.

**Xanthomonas maltophilia** (zăn-thō'mō-nās) SEE: *Stenotrophomonas maltophilia*.

**xanthophose** (zăn"thō-fōz) [" + *phos*, light] Any yellow phase. SEE: *phase*.

**xanthophyll** (zăn"thō-fl) [" + *phyllon*, leaf] A yellow pigment derived from carotene. It is present in some plants and egg yolk.

**xanthoprotein** (zăn"thō-prō'tē-īn) A yellow substance produced by heating proteins with nitric acid.

**xanthopsia** (zăn-thōp'sē-ā) [" + *opsis*, sight] A condition in which objects appear to be yellow.

**xanthopsis** (zăn-thōp'sis) A yellow pigmentation seen in certain cancers and degenerating tissue.

**xanthosis** (zăn-thō'sis) [" + *osis*, condition] A yellowing of the skin seen in carotenemia resulting from ingestion of excessive quantities of carrots, squash, egg yolk, and other foods containing carotenoids. The condition is usually harmless, but it may indicate an increase of lipochromes in the blood caused by other conditions such as hypothyroidism, diabetes, or a malignancy.

**xanthous** (zăn"thūs) [Gr. *xanthos*, yellow] Yellow.

**xanthurenic acid** (zăn-thū-rēn'ik) An acid, C<sub>10</sub>H<sub>7</sub>NO<sub>4</sub>, excreted in the urine of pyridoxine-deficient animals after they are fed tryptophan. Also called 4,8-dihydroxyquinaldic acid.

**xanthuria** (zăn-thū-rē-ā) [" + *ouron*, urine] Xanthinuria.

**x-disease** Aflatoxicosis.

**XDR-TB** Extremely drug-resistant *Mycobacterium tuberculosis*.

**Xe** Symbol for the element xenon.

**xeno-** [Gr. *xenos*, stranger] Combining form indicating *strange*, *foreign*.

**xenobiotic** (zěn"ō-bi-ōt'ik) An antibiotic not produced by the body, and thus foreign to it.

**xenodiagnosis** (zěn"ō-dī-āg-nō'sis) [" + "] The diagnosis of parasitic infection in humans or animals using an intermediate host such as an insect as a culture tool. Uninfected insects are allowed to feed on the infected person. The insects are subsequently tested for the presence of infection, e.g., Chagas' disease or leishmaniasis, a few days or weeks later.

**xenogeneic** (zěn"ō-jēn-ā'ik) [" + *gennan*, to produce] Obtained from a different species. Antigenically foreign.

**xenogenous** (zěn-ōj'ēn-ūs) [Gr. *xenos*, stranger, + *gennan*, to produce] **1.** Caused by a foreign body. **2.** Originating in the host, as a toxin resulting from stimuli applied to cells of the host.

**xenograft** (zěn"ō-grāft) [" + L. *graphium*, stylus] A surgical graft of tissue from an individual of one species to an individual of a different species. SYN: *heterograft*.

**xenomenia** (zěn-ō-mē'nē-ā) [" + *meniaia*, menses] Menstruation from a part of the body other than the uterus. SYN: *stigmata*; *menstruation*, *vicarious*. SEE: *endometriosis*.

**xenon** (zē'nōn) [Gr. *xenos*, stranger] SYMB: Xe. A gaseous element; atomic weight, 131.29; atomic number, 54. Xenon can be used as an (expensive) anesthetic agent. It is neither explosive nor inflammatory, and it is analgesic and hypnotic. It has no teratogenic effects, does not suppress cardiac function, and has a short recovery time.

**PATIENT CARE:** Radioactive isotopes of xenon, including Xe<sup>133</sup> and Xe<sup>127</sup>, are used in ventilation/perfusion (V/Q) lung scans to diagnose pulmonary embolism. The xenon gas is the ventilation agent in the study, i.e., the agent that highlights how well gases move in and out of lung tissues. An isotope of technetium is used to demonstrate pulmonary blood flow.

**xenoparasite** (zěn"ō-pār'ă-sīt) An ectoparasite of a weakened animal, one that would not normally serve as a host.

**xenophobia** (zěn"ō-fō'bē-ā) [" + *phobos*, fear] Abnormal dread of strangers.

**xenophonia** (zěn"ō-fō'nē-ā) [" + *phone*, voice] Alteration in accent and intonation of a person's voice resulting from a speech defect.

**xenophthalmia** (zěn"ōf-thāl'mē-ā) [" + *ophthalmia*, eye inflammation] Inflammation of the eye caused by a foreign body.

**Xenopsylla** (zěn"ōp-sil'ă) [" + *psylla*, flea] A genus of fleas belonging to the family Pulicidae, order Siphonaptera.

**X. cheopis** The rat flea; other hosts include humans. This species is a vector for a number of pathogens including *Hymenolepis nana*, the dwarf tapeworm; *Salmonella* organisms; the causative organisms of bubonic and sylvatic plague and endemic typhus.

**xenotransplantation** (zěn"ō-trāns"plānt-ā'shūn) Transplantation of animal tissues or organs into humans.

**xenotropic** (zěn"ō-trōp'ik) [" + Gr. *tropikos*, turning] Of some viruses, capable of growing in a species that differs from their normal host

**xerantic** (zē-rān'tik) [Gr. *xeros*, dry] Causing dryness. SYN: *siccant*; *siccative*.

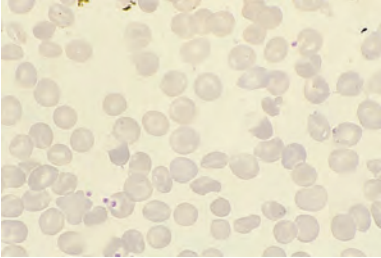
**xerasia** (zē-rā'sē-ā) [Gr. *xeros*, dry] A disease of the hair in which there is ab-

normal dryness and brittleness, and eventually hair loss.

**xero-** Combining form meaning *dry*.

**xerocheilia** (zē'rō-kī'lē-ā) [ʹ + *cheilos*, lip] Dryness of the lips; a type of cheilitis.

**xerocyte** (zē'rō-sīt) An erythrocyte that is dehydrated and appears to have "puddled" at one end, seeming half dark and half light. This type of cell is found in hereditary xerocytosis. **SEE:** *illus.*; *xerocytosis*, *hereditary*.



**XEROCYTES**

**xerocytosis, hereditary** (zē'rō-sī-tō'sīs) A disorder of erythrocytes usually inherited as an autosomal dominant trait. A membrane defect in the red blood cells permits the loss of excess potassium ions and water, causing dehydration of the cells. Hemolysis and anemia range from mild to severe. **SEE:** *xerocyte* for *illus*.

**xeroderma** (zē'rō-dēr'mā) [ʹ + *derma*, skin] Roughness and dryness of the skin; mild ichthyosis.

**x. pigmentosum** A rare, progressive, autosomal recessive, degenerative disease characterized by severe photosensitivity developing in the first years of life. There is rapid onset of erythema, bullae, pigmented macules, hypochromic spots, and telangiectasia. The skin becomes atrophic, dry, and wrinkled. A variety of benign and malignant growths appear early in life. The condition is treated symptomatically and sunlight is avoided. **SYN:** *Kaposi's disease*; *melanosis lenticularis*.

**xerography** (zē-rōg'rā-fē) Xeroradiography.

**xeroma** (zē-rō'mā) [ʹ + *oma*, tumor] Xerophthalmia.

**xeromycteria** (zē'rō-mīk-tē'rē-ā) [ʹ + *mykter*, nose] Dryness of the nasal passages.

**xerophthalmia** (zē-rōf-thāl'mē-ā) [ʹ + *ophthalmos*, eye] Conjunctival dryness with keratinization of the epithelium following chronic conjunctivitis and in disease caused by vitamin A deficiency. **SYN:** *xeroma*; *xerophthalmus*. **SEE:** *Schirmer's test*.

**xerophthalmus** (zē'rōf-thāl'mūs) Xerophthalmia.

**xeroradiography** (zē'rō-rā'dē-ōg'rā-fē)

A method of photoreproduction used in radiography. It is a dry process involving the use of metal plates covered with a powdered substance, such as selenium, electrically and evenly charged. The x-rays alter the charge of the substance to varying degrees, depending on the tissues they have traversed. This produces the image. This procedure has been replaced by film and screen mammography because of its high radiation dose.

**xerosis** (zē-rō'sīs) [Gr.] Abnormal dryness of the skin, mucous membranes, or conjunctiva. **SEE:** *illus.* **xerotic**, *adj.*



**XEROSIS**

**xerostomia** (zē'rō-stō'mē-ā) [ʹ + *stoma*, mouth] Dry mouth.

**xerotocia** (zē'rō-tō'sē-ā) [ʹ + *tokos*, birth] Dry labor caused by a diminished amount of amniotic fluid.

**X factor** A growth factor, identified as hemin, that is needed to grow the bacterium, *Haemophilus influenzae* in culture.

**-ximab** (zī'māb) [from the shape of the Gr. letter chi (X) in "chimera" as if it were a Latin "X" + monoclonal antibody] A combining form for *chimeric monoclonal antibody*. Unlike monoclonal antibodies made from humanized sources (-zumabs), -ximabs usually elicit a neutralizing antibody response in a patient who receives them.

**X inactivation** The silencing of the genes on one of a woman's paired X chromosomes, allowing the other chromosome's genes to be expressed phenotypically. The process is not universal but affects 75% or more of the genes on the chromosome. Genes that are found near the short end of the chromosome are more likely than the rest to be expressed phenotypically, i.e., to escape inactivation.

**xiphi-, xipho-, xiph-** Combining forms meaning *sword-shaped*, *xiphoid*.

**xiphisternum** (zif'ī-stēr'nūm) [Gr. *xiphos*, sword, + *sternon*, chest] Xiphoid process.

**xiphocostal** (zif'ō-kōs'tāl) [" + L. *costa*, rib] Rel. to the xiphoid process and ribs.

**xiphodynia** (zif'ō-dīn'ē-ā) [" + *odyne*, pain] Pain in the xiphoid process.

**xiphoid** (zif'oyd) [Gr. *xiphos*, sword, + *eidōs*, form, shape] Sword-shaped. SYN: *ensiform*.

**xiphoiditis** (zif'oyd-ī'tīs) [" + " + *itis*, inflammation] Inflammation of the xiphoid process.

**xiphopagotomy** (zī-fōp'ā-gōt'ō-mē) Surgical separation of twins joined at the xiphoid process.

**xiphopagus** (zī-fōp'ā-gūs) [" + *pagos*, thing fixed] Symmetrical twins joined at the xiphoid process.

**X-linked** (x'līnkt) Denoting characteristics that are transmitted by genes on the X chromosome.

**X-linked disorder** A disease caused by genes located on the X chromosome. SEE: *choroideremia*; *hemophilia*.

**X<sup>m</sup>** The X chromosome that a child gets from his or her mother.

**X<sup>p</sup>** The X chromosome that a daughter gets from her father.

**x radiation** SEE: under *radiation*.

**x-ray** **1.** Electromagnetic radiation having a wavelength between 0.1 and 100 angstrom units. **2.** A term commonly but loosely used to signify an image of a part of the body made with electromagnetic radiation. The formal synonym for this colloquial term is *radiograph*.

**x-ray photon** An uncharged particle of energy, moving in waves produced by the interaction of high-speed electrons with a target (commonly tungsten).

These particles vary from those of lower energy (1 to 0.1 A.U.), used in diagnostic imaging, to those of higher energy (0.1 to 10<sup>-4</sup> A.U.), used in therapy. SYN: *roentgen ray*.

**xylylene** (zī'lēn, zī-lēn') A mixture of isomeric dimethylbenzenes used in making lacquers and rubber cement. SYN: *xylol*.

**xylenol** (zī'lē-nōl") General name for a series of dimethylphenols found in the pine-type coal tar disinfectants.

**xylitol** (zī'lī-tōl) A five-carbon sugar alcohol that has a sweet taste and has chemical properties similar to those of sucrose. It may be used in place of sucrose as a sweetener. The use of xylitol in the diet might reduce tooth decay in children. SEE: *wood sugar*.

**xylol** (zī'lōl) Xylene.

**xylose** (zī'lōs) [Gr. *xylon*, wood] Wood sugar (also known as birch sugar). It is a sugar substitute obtained from tree sap, but can also be found in fruits and vegetables (such as berries or corn). SYN: *wood sugar*.

**xylulose** (zī'lū-lōs) A pentose sugar present in nature as L-xylulose. It appears in the urine in essential pentosuria and in the form of D-xylulose.

**xyllyl** (zī'līl) A radical, CH<sub>3</sub>C<sub>6</sub>H<sub>4</sub>CH<sub>2</sub>—, formed by the removal of a hydrogen atom from xylene.

**xyrospasm** (zī'rō-spāzm) [Gr. *xyron*, razor, + *spasmos*, a convulsion] An occupational spasm or overuse syndrome involving the fingers and arms; seen in barbers.

**xyster** (zīs'tēr) [Gr., scraper] Raspatory.