

**AIDS**

abbr. immune deficiency disease that cannot be cured

AIDS is a devastating illness related to HIV.

*Forms:* acquired immune deficiency syndrome

**ATP**

abbr. nucleotide with a role in energy metabolism

ATP is made up of adenine, ribose and 3 phosphates.

*Forms:* adenosine triphosphate

**abbreviation**

n. shortening

In physics there are prefix abbreviations for metric systems.

*Forms:* plural: abbreviations

**abdomen**

n. the part of your body containing the digestive organs

The thorax is separated from the abdomen by the diaphragm.

*Forms:* plural: abdomens

**abnormal**

adj. unusual; irregular

Abnormal development may be caused by genetic disease.

**abnormal vision**

n. malfunction of the eyes

A higher bilateral visual system functional level resulted postoperatively in 10.7% of all patients, including 28.6% of patients with abnormal vision in the fellow eye (by definition, the visual system functional level of patients with normal vision in the fellow eye could not be improved).

*Forms:* no plural

**abnormality**

n. irregularity

Sympathetic stimulation (mainly left) caused by physical or emotional stress could periodically increase the amplitude of EADs that were present because of the intrinsic repolarisation abnormality, so that they reach threshold and provoke ventricular tachyarrhythmias.

*Forms:* plural: abnormalities

**absolute zero**

n. the lowest possible temperature where particles of matter have the smallest amount of energy possible

Absolute zero is approximately equal to minus 273 degrees Celsius.

*Forms:* no plural

**absorb**

v. to take in; to take up

The large intestine absorbs water back into the blood.

*Forms:* absorbed; absorbed; absorbing

**acceleration**

n. change of velocity

Average acceleration refers to the change in instantaneous velocity over the time period.

*Forms:* no plural

**acclimatize**

v. adapt to changes in the environment

People must allow enough time to rest and acclimatize when they go to mountainous areas or they will develop altitude sickness.

*Forms:* acclimatized; acclimatized; acclimatizing

**acetaminophen**

n. a painkiller

Acetaminophen is a painkiller. Granted that psychologists have described a whole taxonomy of memory, procedural and declarative, episodic and semantic, working and reference, should one expect similar underlying biochemical and cellular changes to be involved in each, or would every form of memory have its own special biochemistry?

*Forms:* plural: acetaminophens

**acetone**

n. solvent which is a ketone

Acetone is the simplest form of ketone.

*Forms:* no plural

**acetylcholine**

n. the neurotransmitter used by cholinergic nerves

Acetylcholine is a compound of choline and acetic acid.

*Forms:* no plural

**acid anhydride**

n. an organic compound that has two acyl groups bound to the same oxygen atom

Acetic anhydride is an example of an acid anhydride.

*Forms:* plural: acid anhydrides

**acid chloride**

n. this is made when the hydroxyl group of an organic compound with the formula  $\text{RCOCl}$  is replaced by a chlorine atom

Acid chlorides are highly reactive.

*Forms:* plural: acid chlorides

**acid dissociation constant**

n. a fixed value

Acid dissociation constants are a measure of how much acids dissociate into ions in solution.

*Forms:* plural: acid dissociation constants

**acid rain**

n. low pH precipitation due to dissolved sulphur dioxide and nitrogen oxides

Acid rain is a type of pollution which has increased because of industrial processes.

*Forms:* no plural

**acid salt**

n. a compound made by partially neutralizing an acid with ionisable hydrogen atoms

Sodium hydrogensulfate is an acid salt formed by partially neutralizing sulfuric acid.

*Forms:* plural: acid salts

**acid strength**

n. this is the degree to which acids are able to dissociate into ions in a solution

The acid dissociation constant is a measure of the acid strength.

*Forms:* plural: acid strengths

**acne**

n. a disorder where the sebaceous glands become blocked causing pimples

Acne is common in adolescents on the face.

*Forms:* no plural

**acromegaly**

n. chronic disease produced by an overactivity of the pituitary gland leading to an enlargement of bones

Acromegaly is caused by an overproduction of the growth hormone.

*Forms:* no plural

**actin**

n. protein component of muscle fibers

Actin and myosin are both needed to make a muscle bundle contract.

*Forms:* no plural

**actin filament**

n. eukaryotic structure that makes up the cytoskeleton

The actin filaments are also called the microfilaments.

*Forms:* plural: actin filaments

**actinide series**

n. 15 radioactive elements

Atomic numbers of the actinide series increases from actinium to lawrencium.

*Forms:* only plural

**action potential**

n. electrical impulse that passes along a muscle or nerve cell to carry information

There are no variations in the intensity of an action potential; it either fires or it doesn't fire!

*Forms:* no plural

**activated complex**

n. a combination of reacting particles (atoms; molecules or ions) when they are at the top of the activation energy barrier between the products and the reactants

The activated complex exists in a transition state during the course of collision; once formed it will change into the products of the reaction. The arrangement of molecules at the potential energy maximum is known as the "activated complex".

*Forms:* plural: activated complexes

**active site**

n. part of an enzyme where a substrate is accepted and is responsible for its catalytic activity

The coiling of an enzyme creates an active site with a precise 3-dimensional structure.

*Forms:* plural: active sites

**acute**

adj. of recent or sudden onset

Meningitis is usually an acute illness.

*Forms:* more acute; most acute; the most acute

**acyl anhydride**

n. produced by removing a water molecule from two carboxylic acid groups

Acetic anhydride is an example of an acyl anhydride.

*Forms:* plural: acyl anhydrides

**acyl chloride**

n. this is made when the hydroxyl group of a carboxylic acid is replaced by a chlorine atom

Acyl chlorides are highly reactive.

*Forms:* plural: acyl chlorides

**adapt**

v. to habituate (become used to) an environment

Plants and animals develop characteristics that help them adapt to their environment.

*Forms:* adapted; adapted; adapting

**adaptation**

n. characteristics that increase an organism's ability to survive within a changing environment

Adaptation occurs as a result of evolution.

*Forms:* no plural

**addition polymerisation**

n. process in which complex compounds are made by adding together monomers which contain carbon double bonds

Monomers of vinyl chloride are joined together by addition polymerisation to form the polymer PVC.

*Forms:* plural: addition polymerisations

**addition reaction**

n. process in which two molecules join to form a single compound

Addition reactions occur typically with unsaturated compounds.

*Forms:* plural: addition reactions

**addition-elimination reaction**

n. describes a process where two molecules are linked causing another molecule to be removed (such as water)

Another term for addition-elimination reaction is a condensation reaction.

*Forms:* plural: addition-elimination reactions

**adenoids**

n. lymphoid tissue at the back of the throat

If the adenoids become swollen due to infection they may inhibit breathing.

*Forms:* no plural

**adenosine diphosphate**

n. an ester of pyrophosphoric acid with the nucleotide adenine

Adenosine diphosphate is usually abbreviated to ADP.

*Forms:* plural: adenosine diphosphates

**adenylate cyclase**

n. enzyme which changes ATP to cyclic AMP

When adenylate cyclase acts on ATP cyclic AMP and pyrophosphate are formed.

*Forms:* no plural

**adiabatic**

adj. related to a thermodynamic process involving no heat exchange

Loss or gain of heat does not occur during an adiabatic process.

**adipose**

adj. of fat; fatty

Adipose tissue helps insulate the body.

*Forms:* more adipose; most adipose; less adipose; least adipose

**adrenaline**

n. epinephrine

The release of adrenaline triggers the "flight or fight" reaction.

*Forms:* no plural

**advised**

adj. well-thought through; well-prepared; informed

The clinical approach to family planning in which medical staff advised upon and provided services at the hospital was replaced by an extension approach in which a vast array of extension agents and network of services in the countryside was set up, using many techniques of marketing and advertising adapted to the Indian context.

*Forms:* advised; more advised; most advised; less advised; least advised

**aerobic**

adj. presence of oxygen

Under aerobic conditions oxidation of pyruvate can take place during cell respiration in the mitochondria.

**aerosol**

n. very fine particles that are suspended in a gas

Aerosols are usually stored under pressure in a spray can.

*Forms:* plural: aerosols

**agent**

n. a substance that induces a reaction or effect

A chemical agent is a substance which is intended for use in military operations to kill, seriously injure or incapacitate people because of its physiological effects.

*Forms:* plural: agents

**aggravate**

v. to make worse; to worsen

Decaffeinated coffee is now widely available as beans or as instant coffee and is suitable for drinking by children and insomniacs and by people with heart conditions and high blood pressure, where caffeine can aggravate the symptoms.

*Forms:* aggravated; aggravated; aggravating

**alanine**

n. an amino acid

Alanine is a non-essential amino acid.

*Forms:* no plural

**albino**

n. an organism that is unable to produce melanin and is without pigmentation

Albino animals are white in color and may have pink eyes.

*Forms:* plural: albinos

**albumin**

n. protein found in animal tissues and fluids

Albumin is found in egg whites, blood and milk.

*Forms:* plural: albumins

**alcohol**

n. any of a class of organic compounds formed when a hydroxyl group (-OH) is substituted for a hydrogen atom in a hydrocarbon

Alcohol has antiseptic properties.

*Forms:* plural: alcohols

**alcoholism**

n. the syndrome due to physical dependence on ethanol so that stopping intake leads to withdrawal symptoms

Alcoholism is quite common amongst doctors. Mexico has one of the highest rates of alcoholism in the world, which appears to be the result of the coincidence of traditional and modern advertisement-inspired modes of behaviour.

*Forms:* no plural

**alertness**

n. carefulness; vigilance; watchfulness

If a raised body temperature promotes alertness and staves off feelings of fatigue, high body temperatures are obviously disadvantageous when we wish to get to sleep.

*Forms:* no plural

**alimentary canal**

n. digestive tract in mammals

The alimentary canal is a one-way digestive tract.

*Forms:* no plural

**aliphatic**

adj. related to a group of organic molecules in which the carbon atoms are linked in open chains

'Aliphatic' describes all substances being not aromatic and therefore having no stable ring system.

**alkali metal**

n. element in the left-hand side of the periodic table

Sodium and potassium are alkali metals.

*Forms:* plural: alkali metals

**alkaloid**

n. organic substances that contain nitrogen

Alkaloids are found mostly in plants.

*Forms:* plural: alkaloids

**allele**

n. one of two or more alternative forms of a gene; can be dominant or recessive

There is an allele for blue eyes and another for brown.

*Forms:* plural: alleles

**allergen**

n. a substance that causes an allergic reaction

Pollen, animal dander and dust mites can all be allergens.

*Forms:* plural: allergens

**allergy**

n. hypersensitivity reaction

People who are especially at risk include those who are unable to move, perhaps because of a stroke, those with contracted limbs which could be a result of an arthritic condition, people with a known skin condition or allergy and those who are debilitated or undernourished, where there is little flesh between the skin and the bone.

*Forms:* plural: allergies

**allosteric**

adj. another space

An allosteric enzyme is an enzyme which has another receptor site in a space away from the active site.

**allosteric enzyme**

n. catalytic protein which has a receptor site other than the active site

Protein kinase is an allosteric enzyme.

*Forms:* plural: allosteric enzymes

**allosteric site**

n. region on a catalytic protein away from the main active region

The allosteric site is often found where the polypeptide chains join up.

*Forms:* plural: allosteric sites

**allotrope**

n. crystalline form of a chemical element

Graphite and diamond are allotropes of carbon.

*Forms:* plural: allotropes

**alpha helix**

n. secondary structure of a protein where the polypeptide chain has formed spirals

The folds in the alpha helix are generally held together by hydrogen bonds.

*Forms:* plural: alpha helices

**alveolus**

n. air sac in the lung; part of the jaw that supports the teeth; any small cavity

Exchange of gases occurs in the alveolus. Babies born preterm are likely to lack surfactant -- a material that covers the surface of the lung, lowering surface tension in the alveolus and thereby preventing lung collapse on breathing out.

*Forms:* plural: alveoli

**ambien**

n. sedative-hypnotic used for the short-term treatment of insomnia

Ambien is a prescription drug that is used for treating short-term insomnia.

*Forms:* no plural

**amino sugar**

n. compounds where a hydroxyl group is replaced by an amino group

Glucosamine and galactosamine are amino sugars.

*Forms:* plural: amino sugars

**amorphous**

adj. shapeless

An amorphous solid like glass does not have a three-dimensional arrangement, however, the molecules are fixed in place.

*Forms:* more amorphous; most amorphous; less amorphous; least amorphous

**amphipathic**

adj. having both hydrophobic (water-hating) and hydrophilic (water-loving) regions

Lipids that form membranes often have amphipathic qualities.

*Forms:* more amphipathic; most amphipathic; the most amphipathic

**amphipathic lipid**

n. contains a hydrophobic and a hydrophilic part

Amphipathic lipids make up cell membranes and are important lipids.

*Forms:* plural: amphipathic lipids

**amphoteric**

adj. having the features of an acid and a base and being able of reacting chemically either as an acid or a base

An amphoteric species can act either as an acid or a base depending on its chemical environment.

**amprenavir**

n. generic name for a drug that is used to treat HIV infections; produced by GlaxoSmithKline; brand name: Agenerase

Amprenavir, also known as Agenerase, is a type of medicine called a protease inhibitor (PI).

*Forms:* no plural

**anabolic**

adj. energy-requiring during the synthesis of complex molecules from simple molecules

Anabolic processes need to absorb energy to trigger a biochemical reaction.

**analgesic**

adj. pain-killing properties

Acetaminophen is an analgesic drug. It would seem reasonable to call a drug an analgesic for a rat if it delays the time when the rat licks its feet when parked on a hot plate.

*Forms:* more analgesic; most analgesic; less analgesic; least analgesic

**anaphase**

n. stage of cell cycle where chromosomes separate and move towards opposite ends of the cell

Anaphase is followed by telophase.

*Forms:* plural: anaphases

**anatomy**

n. the study of the physical structure and arrangement of an organism

Anatomy is an important part of medicine.

*Forms:* plural: anatomies

**androgen**

n. steroid hormone controlling the development of male sexual characteristics

Testosterone is an androgen influencing male sexual behavior and development.

*Forms:* no plural

**anemia**

n. lack of red blood cells; deficiency of red blood cells; a low level of hemoglobin in the blood

Iron deficiency may cause anemia.

*Forms:* plural: anemias

**anhydride**

n. molecule being formed from another by the removal of water

The most common and important anhydride is acetic anhydride being the dimer of acetic acid.

*Forms:* plural: anhydrides

**anterior**

n. front tooth

At the anterior end of the embryo where the brain will form the folds are well separated with a broad area between them, but the folds run close together towards the rear end.

*Forms:* plural: anteriors

**antibiotic**

adj. a substance that destroys bacteria

Antibiotic drugs have bactericidal properties. It is unwise for general practitioners and the staff of casualty departments to delay giving antibiotic treatment until a lumbar puncture has been performed, such a response may prove fatal.

*Forms:* plural: antibiotics

**antibody**

n. protein made by white blood cells, in response to a particular antigen attack, in order to make the antigen harmless

Antibody reaction is the basis of immunity, allergy, tissue and organ rejection.

*Forms:* plural: antibodies

**antigen**

n. any substance the body reacts to as foreign or harmful, by producing an antibody against it

Most antigens are large proteins or carbohydrate.

*Forms:* plural: antigens

**anus**

n. opening at the end of the alimentary canal

Feces is expelled via the anus.

*Forms:* plural: anuses

**appearance**

n. the way a person looks; a person's visible aspect

Produced by Ugine, the world's largest stainless steel producer, since 1970, its attractive lead-like weathered appearance and long maintenance free life have made it very successful, and since then over 5 million square metres have been used in roofing and cladding applications.

**approval**

n. endorsement

Local ethical committee approval was obtained, and all patients had given fully informed consent to the procedures.

*Forms:* plural: approvals

**approved for treatment**

phr. endorsed by a drug authority to be used as medication

Clozapine has not yet been approved for treatment of bipolar disorder, but has shown promise in investigative studies.

**aromatic**

adj. containing one or more cyclical structures made up of carbon chains

Aromatic hydrocarbons are called arenes.

**artery**

n. carries oxygenated blood from the heart to the rest of the body

The main artery of the body is the aorta.

*Forms:* plural: arteries

**arthr-**

pref. joint

Arthritis is inflammation in the joints.

**arthritis**

n. inflammation of a joint or joints

If alcohol is taken with sleeping tablets and painkillers, excessive drowsiness can result, and severe stomach upsets can be caused when alcohol is taken with drugs used for arthritis.

*Forms:* no plural

**articular cartilage**

n. a type of dense connective tissue which is composed of collagen fibers and/or elastin fibers

Articular cartilage facilitates movement on the opposing bone surfaces.

*Forms:* no plural

**aspirin**

n. mild painkilling drug

Aspirin is made from acylation of salicylic acid.

*Forms:* plural: aspirins

**atom**

n. smallest unit of a chemical element which holds the properties of that element

Atoms combine to form molecules.

*Forms:* plural: atoms

**atrioventricular node**

n. muscle fibers in the heart receiving heartbeat impulses

The atrioventricular node works slowly allowing enough time for the atrial contraction and for the ventricles to fill with blood.

*Forms:* no plural

**atrium**

n. chamber of the heart

The right atrium receives venous blood from the vena cavae.

*Forms:* plural: atriums

**atrophy**

v. to shrink; to degenerate; to reduce

Muscles atrophy if they are not used.

*Forms:* atrophied; atrophied; atrophying

**audio-**

pref. hearing or sound

An audiometer tests hearing.

**auditory**

adj. relating to hearing

The auditory canals are the internal and external passages in the ear that help us hear.

**auricle**

n. outer area of the ear with the function of protection

Sound waves enter the outer ear consisting of the auricle and the auditory canal.

*Forms:* no plural

**auto-**

pref. self

An auto-immune reaction is an immune reaction against your own body.

**autoantibody**

n. protein formed to fight the body's own cells

Autoantibodies are implicated in autoimmune diseases.

*Forms:* plural: autoantibodies

**autonomic**

adj. referring to something which controls itself independently

The autonomic nervous system regulates many important body functions even while we sleep.

**autopsy**

n. medical dissection of a dead body which determines the cause of death

Another term for autopsy is post mortem.

*Forms:* plural: autopsies

**autotroph**

n. organism that makes their own food from simple food sources

Algae, plants and certain bacteria are autotrophs.

*Forms:* plural: autotrophs

**autotrophic**

adj. related to organisms converting sunlight into energy

Autotrophic organisms are plants that don't need an exogenous supply of organic nutrition. Autotrophic organisms make their food from inorganic compounds, e.g. nitrogen.

**avoid**

v. to keep away from; to prevent from happening

If you enjoy an occasional drink this may do no harm but by cutting out drink altogether you avoid any possible risks.

*Forms:* avoided; avoided; avoiding

**azimuthal**

adj. related to a horizontal angle

The second quantum number is called azimuthal quantum number and is labeled with the letter l.

**azole antifungal**

n. generic name for drugs that are used to treat fungus infections; brand names: Diflucan, Nizoral or Sporanox

The azole antifungal agents have five-membered organic rings that contain either two or three nitrogen molecules (the imidazoles and the triazoles respectively).

*Forms:* plural: azole antifungals

**Bunsen burner**

n. device used as a fuel source in laboratories

Bunsen burners are needed for laboratory experiments. In the 1850s, the invention of the Bunsen burner meant that very high temperatures could be achieved on the laboratory bench; and if the furnace was no longer necessary, then the laboratory could move upstairs.

*Forms:* no plural

**bacillus**

n. a genus of rod-shaped, Gram-positive bacteria

Salmonella are gram-negative bacilli.

*Forms:* plural: bacilli

**bacterium**

n. one-celled organisms that don't have a cell nucleus and reproduce by spore formation or fission

Bacteria are prokaryotes.

*Forms:* plural: bacteria

**balance**

v. to adjust a chemical equation so that the number of atoms and charge match on each side

In chemistry you learn how to balance equations.

*Forms:* balanced; balanced; balancing

**balance**

n. a scientific instrument that measures and compares masses

We use a balance to measure out the mass of a chemical substance in a laboratory experiment.

*Forms:* plural: balances

**barium**

n. metallic element found only as compounds

Barium is soft, white and is used to view the alimentary system in X-rays.

*Forms:* no plural

**basal metabolic rate**

n. the amount of energy expended by the body in order to survive at complete rest

Starvation slows the basal metabolic rate. Your basal metabolic rate (i.e. when you are resting) has an influence on how much energy you expend when you are doing anything that doesn't involve very much physical activity.

*Forms:* no plural

**base**

n. substance that contains hydroxyl ions when dissolved in water

Acids and bases cause color changes in certain substances called indicators.

*Forms:* plural: bases

**belly**

n. area of body below the diaphragm and above the pelvis (informal)

The belly is otherwise known as the abdomen.

*Forms:* plural: bellies

**benzene**

n. an organic chemical compound with the formula C<sub>6</sub>H<sub>6</sub>

Benzene is used to make detergents, fuels and insecticides.

*Forms:* no plural

**bereaved**

adj. related to someone who has lost a loved one through death

Bereaved people often feel very lonely.

**bereavement**

n. loss of someone close through death

People often experience great sadness after a bereavement.

*Forms:* plural: bereavements

**beriberi**

n. illness due to thiamine deficiency

Beriberi occurs in malnourished people e.g. the starving, very ill or alcoholics.

*Forms:* no plural

**beta cell**

n. pancreatic unit that makes insulin

The beta cells are found in the islets of Langerhans.

*Forms:* plural: beta cells

**beta pleated sheet**

n. secondary structure of a protein where the polypeptide chain forms a zigzag shape

Fibrous proteins contain a beta-pleated sheet.

*Forms:* plural: beta pleated sheets

**beta-carotene**

n. a nutrient found throughout plant and animal species

The liver converts beta-carotene to vitamin A.

*Forms:* no plural

**bias**

n. an error in the method or study design that could affect the results

If you do not randomly choose the subjects in a study you may introduce bias.

*Forms:* plural: biases

**binary fission**

n. type of asexual reproduction which leads to splitting of parental cells in two equal parts

Prokaryotes use binary fission as the primary process of cell division involving the replication of a single DNA molecule and the separation of both the original and replicated DNA molecules in different cells.

*Forms:* no plural

**binocular**

adj. involving both eyes at the same time

Although the principles of binocular vision might rather straightforward, they still require careful attention to the finer details of how we view and perceive the world.

**bio-**

pref. life

Biology is the study of life.

**biological clock**

n. system that controls daily cycles such as blood pressure, sleep rhythms and hormone release

The pineal gland helps control the biological clock.

*Forms:* no plural

**biopsy**

n. removal of a small piece of tissue from the body so it can be examined under the microscope

A biopsy is a medical investigation.

*Forms:* plural: biopsies

**biotic**

adj. living; living organisms

An anti-biotic agent kills living organisms.

**biotin**

n. part of the vitamin B complex

Biotin is found in eggs and yeast.

*Forms:* plural: biotins

**birth control**

n. the use of contraceptive methods to stop pregnancy; contraception

Sterilization is a means of birth control. Despite the current problem of over-population, the Vatican can still impose its strictures on birth control and abortion -- not on social or moral grounds, but on theological.

*Forms:* no plural

**black stools**

n. hematochezia; melena

Consuming black licorice, lead, iron pills, bismuth medicines like Pepto-Bismol, or blueberries can also cause black stools.

**bladder**

n. organ that stores urine

The bladder is a hollow organ lined with smooth muscle.

*Forms:* plural: bladders

**bleeding disorder**

n. coagulopathy

A bleeding disorder is an acquired or inherited tendency to bleed excessively.

*Forms:* plural: bleeding disorders

**blister**

n. a skin swelling which contains fluid

The hot water burnt his skin and a blister formed.

*Forms:* plural: blisters

**block**

v. to hinder; to stop

The specialist will probably suggest laser surgery to block off the leaking vessels.

*Forms:* blocked; blocked; blocking

**blockage**

n. an obstacle that prevents things from moving along

Atherosclerosis causes a blockage to blood flow in important arteries.

*Forms:* plural: blockages

**blood flow**

n. process that describes the movement of body fluids through the veins and arteries

It is true that we cannot observe or measure directly mental processes taking place in the brain in the way that we can measure, say, blood flow via a brain scanner.

*Forms:* no plural

**blood pressure**

n. the force within the cardiovascular system

The causes of high blood pressure, or hypertension, and of clotting, or thrombosis, are still obscure, in spite of the mountains of evidence accumulated about the mechanisms by which the blood pressure may be raised or the blood may clot.

*Forms:* no plural

**blood system cancer**

n. disease of the lymphatic complex

The blood system cancer, lymphoma, already occurs more commonly in Crohn's disease patients than in those without Crohn's.

*Forms:* plural: blood system cancers

**blood vessel**

n. part of the cardiovascular system (e.g. vein or artery)

The human cardiovascular system consists of a muscular four-chambered heart, a network of blood vessels, and the blood itself.

*Forms:* plural: blood vessels

**bone marrow**

n. spongy, red tissue found in the reticulo-endothelial system of mammals

Red blood cells, platelets and some white cells are made in the bone marrow.

*Forms:* no plural

**bony**

adj. osseous; sclerous

A bony person is someone who is so thin that you can see their bones through their skin.

*Forms:* bonier; boniest; the boniest

**brachial**

adj. relating to the arm (or similar vestige in other organisms)

The brachial artery supplies the arm with blood.

**breath**

n. air going into and out of your nose and mouth

A symptom people complain of is feeling 'out of breath' or 'short of breath'.

*Forms:* plural: breaths

**bromide**

n. a compound made of bromine joined to another element

Potassium bromide is an example of a bromide. Australian scientists have suggested that carbonyl sulphide should be used as a benign alternative to methyl bromide, a pesticide employed for fumigating soil, timbers, and grains and fruit after harvest.

*Forms:* plural: bromides

**bromine**

n. red-brown halogen that is a liquid at room temperature but gives off an irritating vapor

Bromine is in group 7 of the periodic table.

*Forms:* no plural

**bronchioles**

n. tiny branches of air tubes within the lungs

Bronchioles are surrounded by clusters of small air sacs or alveoli.

*Forms:* only plural

**bronchus**

n. air tube connecting trachea ('windpipe') and lungs

The left bronchus is longer than the right one.

*Forms:* plural: bronchia

**brow**

n. the part of the face above the eyes

The brow is also called the forehead.

*Forms:* plural: brows

**bug**

n. an infectious disease or agent (informal)

He caught a bug on holiday and has been in bed ever since!

*Forms:* plural: bugs

**burn**

v. to be on fire; to scald

Caustic agents can seriously burn skin.

*Forms:* burnt/burned; burned/burned; burning

**buttock**

n. fleshy part on which we sit; 'backside'

The buttocks are mainly formed by the gluteal muscles.

*Forms:* plural: buttocks

**buy in bulk**

phr. to purchase large amounts of products (often to get a discount)

Deciding whether your business should buy in bulk isn't as straightforward as deciding whether to shop at Costco for your household.

**CFC**

abbr. gases used in aerosols

Chlorofluorocarbons (CFCs) are harmful to the environment.

*Forms:* plural: CFCs

**CO**

abbr. a poisonous gas; carbon monoxid

CO poisoning can be caused by inhaling exhaust fumes.

*Forms:* carbon monoxide

**CPR**

abbr. the technique used to help start a person's heart if it has stopped

CPR is used in emergencies. Cardiopulmonary resuscitation (CPR) conjures up the image of a frenetic (often chaotic) and emotive scene where the dying are brought back to life.

*Forms:* cardiopulmonary resuscitation

**CSF**

abbr. clear fluid surrounding the brain and spinal cord

The CSF (cerebrospinal fluid) is contained in the subarachnoid space and moves in the ventricles of the brain and the central canal of the spinal cord.

*Forms:* cerebrospinal fluid

**caffeine**

n. a drug present in tea; coffee and cola that is a stimulant

Caffeine is a diuretic.

*Forms:* no plural

**calcified**

adj. made hard by calcium deposits

Bone is connective tissue that has been calcified.

*Forms:* more calcified; most calcified; the most calcified

**calcify**

v. to make hard by forming mineral deposits

If bones fail to calcify they become very soft.

*Forms:* calcified; calcified; calcifying

**calcium**

n. chemical element with the symbol Ca which is used to make bones and teeth

Calcium plays a role in muscle contraction, nerve conduction and blood clotting.

*Forms:* no plural

**cancer**

n. disease where cells divide at an excessive rate and become abnormal in function; malignancy; neoplasm

Cancer cells tend to spread.

*Forms:* plural: cancers

**cannabis**

n. a drug also known as marijuana

Cannabis can precipitate psychosis in some people.

*Forms:* no plural

**capillary**

n. blood vessel with walls only one cell thick

The thin vessel wall allows oxygen, carbon dioxide, water and salts to be exchanged between the blood and the tissues.

*Forms:* plural: capillaries

**carbamate**

n. salt or ester of carbamic acid

Carbamates are salts derived from substances called isocyanates.

*Forms:* plural: carbamates

**carbohydrate**

n. compound made from plants containing carbon, hydrogen and oxygen

Carbohydrates such as starch, are an important source of energy.

*Forms:* plural: carbohydrates

**carbon**

n. element that makes up most organic molecules and can form 4 bonds with other atoms

Carbon has the chemical symbol C and makes up 18% of a human body.

*Forms:* no plural

**carbon dioxide**

n. gas used by plants in photosynthesis and made in respiration

A high concentration of carbon dioxide in the blood stimulates respiration.

*Forms:* plural: carbon dioxides

**carbon monoxide**

n. a poisonous gas

Carbon monoxide poisoning can be caused by inhaling exhaust fumes.

*Forms:* plural: carbon monoxides

**carboxyl group**

n. denoted by -COOH

Carboxyl groups are present in all fatty acids.

*Forms:* plural: carboxyl groups

**carcinogen**

n. a substance that causes cancer

Tobacco smoke is a known carcinogen.

*Forms:* plural: carcinogens

**cardiac**

adj. of the heart

The patient died after a cardiac arrest.

**cardiogenic shock**

n. an illness where the circulation 'collapses' and the blood pressure drops

Some bacterial infections can cause cardiogenic shock. As many as 50% of patients admitted to hospital following a successful resuscitation from out-of-hospital cardiac arrest will die before discharge, mainly as a result of cardiogenic shock or the consequences of lengthy anoxia.

*Forms:* no plural

**cardiothoracic**

adj. relating to the heart and chest region

Cardiothoracics is a branch of medicine.

**carotene**

n. highly colored pigments (yellow to red) found in vegetables

Vitamin A can be produced in the body from consuming carotene.

*Forms:* plural: carotenes

**carrier-mediated active transport**

n. process in which substances are moved across a cell membrane from a region of low concentration to a region of high concentration

Carrier-mediated active transport requires energy such as ATP.

**catabolic**

adj. energy-releasing during the breakdown of complex molecules into simple molecules

Catabolic processes release energy during the biochemical reaction which in turn can be used for anabolic processes.

**catecholamines**

n. the hormones adrenaline and noradrenaline that are made and secreted by the adrenals

Catecholamines are released in reaction to stress.

*Forms:* only plural

**caution**

n. warning; caveat

The evidence suggests that human insulin is a faster and shorter acting insulin and caution should be exercised in transferring patients from animal insulins.

*Forms:* plural: cautions

**celebrex**

n. anti-arthritis medication; a Cox-2 inhibitor that alleviates pain without harming the digestive tract; used to cure osteoarthritis

Celebrex is a nonsteroidal anti-inflammatory drug that relieves arthritis pain, stiffness, and inflammation.

*Forms:* also known as celecoxib

**celexa**

n. selective serotonin reuptake inhibitor used to treat depression; generic name: citalopram

Celexa is an FDA approved drug that is used for treating depression and anxiety that is brought on by depression.

*Forms:* no plural

**cell membrane**

n. a semipermeable lipid bilayer

The cell membrane is semi-permeable and is largely made up of proteins and phospholipids.

*Forms:* plural: cell membranes

**cellular respiration**

n. redox process where hydrogen is transferred to oxygen from glucose releasing energy

Cellular respiration includes glycolysis, acetyl-CoA production, the citric acid cycle and electron transport.

*Forms:* plural: cellular respirations

**cellulose**

n. carbohydrate that makes up the bulk of plant matter

Cellulose is difficult for man to digest.

*Forms:* no plural

**centriole**

n. hollow cylinders containing nine microtubule triplets

Centrioles help form the mitotic spindle in cell division.

*Forms:* plural: centrioles

**cerebral**

adj. of the brain; concerning the brain

A cerebral hemorrhage is when a brain artery bleeds.

**cerebral cortex**

n. outer covering of the cerebrum responsible for consciousness, memory, intellect, voluntary activity and sensory perception

The cerebral cortex makes up 40% of the brain by weight.

*Forms:* no plural

**cerebral infarction**

n. the death of brain tissue due to inadequate blood flow

The patient suffered a cerebral infarction and was paralyzed. The triggering event in myocardial or cerebral infarction is not the atherosclerotic lesion of the blood vessel wall but the obstruction of the artery by a thrombus.

*Forms:* no plural

**cerebrospinal fluid**

n. clear liquid surrounding the brain and spinal cord

The cerebrospinal fluid is contained in the subarachnoid space and moves in the ventricles of the brain and the central canal of the spinal cord.

*Forms:* no plural

**chemical equation**

n. any reaction occurring between atoms or compounds can be written with the reactants on the left and the products on the right separated by arrows showing the direction of the reaction

A chemical equation showing the reaction of carbon and oxygen to form carbon monoxide looks like this:  
CO<sub>2</sub>(CO).

*Forms:* plural: chemical equations

**chemotaxis**

n. cell movement to or away from a chemical which is able to attract or repel the cell

Chemotaxis is an important cellular response.

**chest pain**

n. aching in the thorax

Now that ambulatory manometry has become available, it is necessary to identify these patterns if perfectly normal esophageal migrating motor complex activity is not to be interpreted as a sign of esophageal motility disorders or as a cause of esophageal chest pain.

*Forms:* plural: chest pains

**child**

n. opposite of adult; youngster; offspring

The importance of good lighting for people who are visually handicapped has already been stressed, as has the need for each child's requirements in levels of lighting to be stressed.

*Forms:* plural: children

**chlorofluorocarbon**

n. gases used in aerosols

Chlorofluorocarbons are harmful to the environment.

*Forms:* plural: chlorofluorocarbons

**chlorophyll**

n. green pigment found in all green plants that absorbs light so that photosynthesis can occur

Some bacteria contain chlorophyll as well as plants.

*Forms:* no plural

**chloroplast**

n. cell containing chlorophyll

Chloroplasts carry out photosynthesis.

*Forms:* plural: chloroplasts

**cholesterol**

n. a steroid that plays an important part in metabolism

Cholesterol is needed to make cell membranes.

*Forms:* plural: cholesterol

**chorion**

n. the external membrane of an embryo

The chorion has a role in the development of the placenta in humans.

*Forms:* plural: chorions

**chromatin**

n. nucleic substance that condenses to make chromosomes during mitosis

Chromatin is found in the nucleus and is made up of histones and DNA.

*Forms:* no plural

**chromatin strand**

n. fibres of DNA joined to proteins

Chromatin is then arranged to form chromosomes.

*Forms:* plural: chromatin strands

**chromium**

n. Group 2 metallic element

Chromium is used to make alloys and steel.

*Forms:* no plural

**chromosome**

n. gene material found in the cell nucleus

Human body cells have 23 pairs of chromosomes.

*Forms:* plural: chromosomes

**chronic**

adj. lasts a long time; persistent

Arthritis may be an acute or a chronic illness.

*Forms:* more chronic; most chronic; the most chronic

**chylomicron**

n. microscopic particles of fat in the blood and lymph

Chylomicrons are released into tiny lymph vessels.

*Forms:* plural: chylomicrons

**cialis**

n. brand name for a drug that is used to treat erectile dysfunctions; a selective inhibitor of cyclic guanosine monophosphate

Cialis tablets contain the active ingredient tadalafil, which is a medicine used in the treatment of erectile dysfunction (impotence).

**ciliary muscle**

n. organ that affects zonular fibers in the eye (fibers that suspend the lens in position during accommodation), enabling changes in lens shape for light focusing

The ciliary muscle changes the shape of the lens.

*Forms:* plural: ciliary muscles

**cilium**

n. hair-like organelle found in eukaryotic cells

Cilia line the upper respiratory tract and are damaged by cigarette smoke.

*Forms:* plural: cilia

**cimetidine**

n. generic name for drugs that used to treat peptic ulcers by decreasing the secretion of stomach acid; brand name: Tagamet

Cimetidine was the first H<sub>2</sub> blocker to reach the clinic, which was a triumph for synthetic organic chemistry.

**circadian rhythm**

n. daily activity cycle in many organisms caused by a 24-hours interval

Melatonin plays a role in the regulation of circadian rhythms.

*Forms:* plural: ircadian rhythms

**circulatory shock**

n. an illness where the circulation 'collapses' and the blood pressure drops

Some bacterial infections can cause circulatory shock.

*Forms:* no plural

**citric acid cycle**

n. process that aerobically breaks down food molecules to carbon dioxide; water and energy

The citric acid cycle is an aerobic event. The Citric Acid cycle also known as Krebscycle or tricarboxylic acid cycle consists of many steps and reactions.

*Forms:* plural: citric acid cycles

**cleavage**

n. series of fast mitotic divisions in embryology

The cleavage leads to an increase in cell numbers, while the total amount of cytoplasm stays constant.

*Forms:* plural: cleavages

**coagulate**

v. to thicken from a liquid state towards a solid state

Blood coagulates faster the slower it flows. Proteins tend to coagulate and form large particles when heated, but this is controlled using a high shear process (intensive blending).

*Forms:* coagulated; oagulated; coagulating

**coccus**

n. spherical-shaped bacterium

Staphylococci are gram-positive cocci.

*Forms:* plural: cocci

**coenzyme**

n. a non-protein substance that acts as a cofactor for a particular catalytic reaction to occur

Most vitamins are coenzymes. The Acetyl Coenzyme A (2C) unites with a molecule of Oxalacetic Acid (4C) to form Citric Acid (6C).

*Forms:* plural: coenzymes

**cofactor**

n. a non-protein substance, often a metal ion; that is needed for normal enzyme action

Some enzymes have two parts — an apoenzyme and a cofactor.

*Forms:* plural: cofactors

**coma**

n. unconscious state

A person in a coma is not dead.

*Forms:* no plural

**communicable**

adj. capable of being passed on easily

Tuberculosis is a communicable disease. Medical science did not make the progress in mastering cancer, heart ailments and mental and nervous disorders which it had made in dealing with communicable diseases.

*Forms:* more communicable; most communicable; the most communicable

**competitive inhibition**

n. interference of enzyme action by an abnormal substrate that blocks the normal substrate entering the active site

Competitive inhibition is a form of reversible enzyme inhibition. The scale of the amine abnormality is proportional to the degree of hyperphenylalaninaemia and probably depends on the combined effects of competitive inhibition of tyrosine and tryptophan hydroxylases (by phenylalanine) and a deficiency of the amino acid substrates for these enzymes.

*Forms:* plural: competitive inhibitions

**concentration**

n. the amount of a substance within a second substance, usually in a solution

The concentration of the solution was one mole.

*Forms:* plural: concentrations

**concentration gradient**

n. a ratio of the quantity of a substance from one section to another

During diffusion particles naturally move down the concentration gradient.

*Forms:* plural: concentration gradients

**condensation**

n. the process by which monomers are joined by covalent bonds

Condensation is a synthetic process.

*Forms:* no plural

**contraceptive**

n. device prevents pregnancy

The contraceptive pill was first used in the 1960's.

*Forms:* plural: contraceptives

**corticosteroids**

n. hormone that is produced by the adrenal cortex

Creams and ointments containing corticosteroids, because of their powerful anti-inflammatory action, can lessen the symptoms considerably but they also have the effect of damping down the body's natural defence and, in theory, could lead to the spread of the infection, with potentially fatal results in a primary attack when there is no natural immunity at all.

*Forms:* only plural

**cotyledon**

n. seed leaf of the embryo of a plant

The cotyledon contains food ready for germination.

*Forms:* plural: cotyledons

**cranium**

n. skull bone

The cranium protects the brain. In practice many laboratories use two electrodes on the scalp, one at the vertex (midway centrally between the bridge of the nose and the inion, or bony bump at the base of the cranium), and one frontally, about two centimetres behind the hairline.

*Forms:* no plural

**creatine**

n. an amino acid that does not occur in proteins but is found in the muscle tissue of vertebrates

Creatine is stored in muscle cells and made in the liver, pancreas and kidney.

*Forms:* no plural

**creatinine**

n. the form in which creatine is excreted from the body

The level of creatinine in the blood is a measure of kidney function.

*Forms:* no plural

**crista**

n. fold in a membrane which forms a projection

The cristae of the mitochondrial membrane act to increase its surface area.

*Forms:* plural cristae

**cyanide**

n. a heavy metal poison

Cytochrome oxidase is very sensitive to cyanide. Oxygen is extremely reactive, and any that appeared in an atmosphere containing ammonia, hydrogen cyanide, and the rest, would immediately have reacted with them.

*Forms:* plural: cyanides

**cyclic AMP**

n. second messenger molecule where the phosphate group is part of a ring-shaped structure

Cyclic AMP is a form of adenine monophosphate. The potent inhibitory action of prostacyclin on platelet aggregation correlates with its ability to stimulate the platelet adenylate cyclase system, thus increasing cyclic AMP levels within the cell.

*Forms:* plural: cyclic AMPs

**cyst**

n. a membrane lined vesicle or sac

Cysts can grow on the surface or deep inside anatomical structures.

*Forms:* plural: cysts

**cystic fibrosis**

n. a hereditary disease that mainly affects the lungs and digestive system

Patients with cystic fibrosis have a reduced lifespan. Intestinal motility disturbances with prolonged intestinal transit times are well described in patients with cystic fibrosis and may predispose to the development of small bowel bacterial overgrowth, bacterial dehydroxylation and deconjugation of bile acids, decreased bile salt solubility, diminished intestinal bile acid absorption, and excessive faecal bile acid loss.

*Forms:* no plural

**cystine**

n. an amino acid

There is a rare metabolic disorder called cystinosis where cystine deposits in large amounts in the kidneys.

*Forms:* no plural

**cyte**

suf. cell

A monocyte is a large white blood cell.

**cyto-**

pref. cell

The cytoplasm is all the cell contents apart from the nucleus.

**cytochrome**

n. protein that contains iron and acts as an electron and hydrogen acceptor for cellular energy processes

FAD and NAD are cytochromes. Hubel and his colleagues had studied the visual cortex of the rhesus monkey for many years without observing these cells and it was only when the cytochrome oxidase blobs had been demonstrated consistently and they started to look for receptive-field properties within them that they obtained these surprising results.

*Forms:* plural: cytochromes

**cytology**

n. the study of cells

Cytology is a section of pathology. Kennel staff are trained in the use of ultrasound, artificial insemination, cytology (testing to assess a bitch's optimum conception time), as well as supervising the matings themselves.

*Forms:* no plural

**Down's Syndrome**

n. inherited disease due to an extra chromosome 21; also known as 'trisomy 21'

People with Down's Syndrome have an increased risk of thyroid disease.

*Forms:* no plural

**dangerous**

adj. unsafe; risky

It is not an isolated case and the ministry has ordered an investigation into other major industrial sites, conceding that there could be 3,300 where contamination has reached dangerous levels.

*Forms:* dangerous; more dangerous; most dangerous; less dangerous; least dangerous

**deamination**

n. removal of an amino group (NH<sub>2</sub>) from an organic molecule

In the liver amino acids are transformed during the process called deamination.

*Forms:* no plural

**decompose**

v. to break down; to decay

Bacteria decompose organic matter.

*Forms:* decomposed; decomposed; decomposing

**decrease**

n. reduction

A decrease in tissue type plasminogen activator concentrations, as found in human colon carcinomas, could only be shown in carcinomas of columnar epithelium origin but not in squamous cell carcinomas of the oesophagus.

*Forms:* no plural

**dehydrate**

v. to lose water from; to remove water from something

Patients with a fever dehydrate quickly and must drink more fluids.

*Forms:* dehydrated; dehydrated; dehydrating

**dehydration**

n. the process of passively losing or actively removing water from something

Exposure to high temperatures can cause dehydration.

*Forms:* no plural

**dehydrogenation**

n. the removal of hydrogen from a molecule

Dehydrogenation is a form of oxidation.

*Forms:* plural: dehydrogenations

**delavirdine**

n. generic name for a non-nucleoside reverse transcriptase inhibitor that is applied to treat AIDS and HIV; trade name: Rescriptor

Delavirdine was approved by the FDA in 1997 for use in combination with other antiretrovirals in adults with HIV infection.

*Forms:* no plural

**delay**

v. to put off to a later time; to slow the progress of something

Don't delay your revision too long or you may fail the MCAT exam.

*Forms:* delayed; delayed; delaying

**delay**

n. a hold-up; a postponement

There's been an accident on the freeway; so there may be a long delay unless we change our route.

*Forms:* plural: delays

**delayed**

adj. held up; put off to a later time

Delayed puberty can be the result of a hormonal imbalance.

*Forms:* more delayed; most delayed; the most delayed

**dementia**

n. illness affecting the brain where the ability to remember things; and other mental skills; are poor

Dementia is more common in the elderly. Some patients suffering dementia as a consequence of Parkinson's disease or Down's syndrome show nerve damage virtually identical to that in Alzheimer's patients: in contrast, dementia due to Huntington's disease seems to be due to a specific deterioration of different nerve cells.

*Forms:* no plural

**deoxygenated blood**

n. a bodily fluid that returns from the tissues and organs to the heart via a set of vessels, called veins

Veins carry deoxygenated blood.

*Forms:* no plural

**dependent diabetes**

n. diabetic illness that can only be managed using insulin injections; usually affecting young people

Insulin dependent diabetes is also called type 1 diabetes.

*Forms:* no plural

**desmosome**

n. plaque that helps hold adjacent cells together

Epithelial cells are held together by desmosomes.

*Forms:* plural: desmosomes

**detritus**

n. rubbish produced when something degrades

Bacteria decompose detritus. At the other end of the scale there are the particle feeders, static animals such as burrowing marine worms and other bottom-dwelling aquatic creatures that simply sit and sift the plentiful detritus that sinks to the bed of seas and lakes.

*Forms:* plural: detritus

**dextrorotatory**

adj. related to an optically active molecule that rotates the plane of polarized light to the right

A substance rotating the plane of polarized light to the right is dextrorotatory.

**diabetes**

n. disease of pancreas due to lack of insulin

Symptoms of diabetes are weight loss, frequent urination and fatigue.

*Forms:* no plural

**diabetic**

n. of or relating to a disease characterized by an impaired ability to metabolize sugar

Some diabetics need to take medication.

*Forms:* plural: diabetics

**diaphragm**

n. muscle separating abdomen from thorax

The diaphragm plays an important role in breathing. Diabetic subjects and their first degree relatives form a suitable population in which to examine the relation between birth weight and the development of impaired glucose tolerance and non-insulin dependent diabetes.

*Forms:* plural: diaphragms

**diarrhea**

n. frequent and excessive bowel motions; malfunction of the bowel

Diarrhea is a symptom of gastroenteritis.

*Forms:* no plural

**diastole**

n. the part of the cardiac cycle during which the heart muscle relaxes

Blood pressure falls during diastole.

*Forms:* plural: diastoles

**dicotyledon**

n. a plant that has two cotyledons (seed leaves)

Many trees are dicotyledons.

*Forms:* plural: dicotyledons

**dioxide**

n. a compound with 2 oxygen atoms in it

Carbon dioxide is an example of a dioxide gas. Carbon monoxide and hydrocarbons will be less dramatically reduced, possibly by considerably less than half, while carbon dioxide emissions will increase because catalysts lead to heavier fuel consumption (only lean-burn engines which use less fuel would cut CO<sub>2</sub> emissions, but progress on them is slow).

*Forms:* plural: dioxides

**directions**

n. instructions; manual containing information on how to use a drug or medication

We were given a number of examples of persons who would not comply with medical directions, due to inability to read written instructions or because verbal instructions were not presented in a way in which they could be understood.

*Forms:* only plural

**discrete**

adj. separate; not joined

A discrete object is one that is detached from the others.

*Forms:* more discrete; most discrete; the most discrete

**dissect**

v. to cut; to take apart; to remove body parts or organs

A body is dissected at post mortem.

*Forms:* dissected; dissected; dissecting

**dissipate**

v. to disappear

The rate at which the energy loss occurs is equal to the power dissipated by the resistor.

*Forms:* dissipated; dissipated; dissipating

**dissolve**

v. to mix into something to form a solution

Salt and sugar dissolve in water.

*Forms:* dissolved; dissolved; dissolving

**diuretics**

n. water drug; any substance that tends to increase the flow of urine

In the majority of studies the most frequently used drugs have been thiazide diuretics and beta-blocking agents.

*Forms:* plural: diuretics

**divide**

v. to split; separate

The cell divides during mitosis or meiosis.

*Forms:* divided; divided; dividing

**dizziness**

n. light-headedness

As well as causing annoyance by making hair and clothes smell unpleasant, involuntary smoke exposure can cause symptoms such as eye irritation, headache, cough, sore throat, dizziness and nausea and produces small but measurable changes in the air passages in the lungs of otherwise healthy adults.

*Forms:* no plural

**donor medicines**

n. generic name for drugs that are often used to treat angina

Viagra's use in combination with other ED treatments has not been studied, therefore, its use in combination with your doctor or any "nitric oxide donor" medicines", steroid abuse by body-builders, too much or too little thyroid hormone, and pressure.

*Forms:* only plural

**dorsal**

adj. relating to the back surface; posterior

Fishes usually have dorsal fins.

*Forms:* more dorsal; most dorsal; the most dorsal

**dorsum**

n. the back of the body

The patient has a rash on the dorsum.

*Forms:* plural: dorsa

**dosing schedule**

n. pattern that determines when and how much of a drug or medication should be consumed by a patient

The investigators speculated that the lack of effect in their study population was due to the 6-monthly rather than 4-monthly dosing schedule, the low mortality rate in the control group, or the postulated lack of other nutrients, such as fat or zinc, in the diet.

*Forms:* plural: dosing schedules

**double bond**

n. a covalent bond where two pairs of electrons are shared

Molecular oxygen is formed when two oxygen atoms share two pairs of electrons in a double bond.

*Forms:* no plural

**drive**

n. urge

Sadism is not an inherently egoistic drive, rather it is the assertive phase of a drive which may also be submissive even in the same person.

*Forms:* plural: drives

**drug**

n. a substance that has an effect on the body

Acetaminophen is an example of a drug.

*Forms:* plural: drugs

**drug interactions**

n. interdependence between various medications

Drug interactions can result in unwanted side effects, reduce the effectiveness of your medicine or possibly increase the action of a particular medicine.

*Forms:* only plural

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**ear wax**

n. substance secreted in the outer hearing organ canal by special glands

The technical name for earwax is cerumen.

*Forms:* no plural

**eardrum**

n. tympanic membrane; membrane separating the middle part of the hearing organ from the outer part

The eardrum transmits sound vibrations to the three ear bones (ossicles).

*Forms:* plural: eardrums

**ecto-**

pref. outside; outer

The ectoderm is the outside germ layer in an embryo.

**edema**

n. swelling of a part of the body due to abnormal fluid collection in the spaces between the cells

Heart failure can cause edema.

*Forms:* no plural

**effexor**

n. antidepressant that works on both serotonin and norepinephrine

Effexor is a selective serotonin and norepinephrine reuptake inhibitor, also called an SSNRI.

*Forms:* no plural

**ejaculation**

n. process of emitting sperm

Ejaculation is needed to position the sperm high up in the vagina to maximize the chances of conception. Many men become anxious about the lack of spontaneous erection and diminished ejaculation, and fear they are becoming impotent.

*Forms:* plural: ejaculations

**elastic**

adj. able to return to original shape after being exposed to a force

As we age the skin becomes less elastic.

*Forms:* more elastic; most elastic; less elastic; least elastic

**elderly**

adj. senior; older; aged

Accidents cause injury and suffering to hundreds of people every year, and those moving about on foot or bicycle, elderly and infirm people, and children are most at risk.

*Forms:* elderly; more elderly; most elderly; less elderly; least elderly

**electrode**

n. the piece of conducting material through which an electric current enters and leaves a liquid or gas

Electrodes are usually made of metal or carbon.

*Forms:* plural: electrodes

**electrolyte**

n. dissolved salt or ions in the body fluids

Sodium and potassium are important electrolytes that regulate cellular processes.

*Forms:* plural: electrolytes

**electron configuration**

n. the way that electrons are found around an atom

Electron configuration of an atom is such that electrons fill the shell nearest the nucleus before filling others further away.

*Forms:* plural: electron configurations

**electron shell**

n. a main energy level; a group of atomic orbitals with the same value of the principal quantum number n

The number of electrons in the outer electron shell determines the properties of atoms.

*Forms:* plural: electron shells

**elongation**

n. process in polypeptide synthesis of increasing in length

Elongation is an energy-requiring stage of the polypeptide synthesis being mediated by enzymes.

*Forms:* no plural

**emergency room**

n. department in a hospital or clinic that is equipped to provide immediate or medical treatment

Such cases will often have been treated as acute cystitis for a day or two, and may present to the casualty department or emergency room with a bladder so swollen that it mimics a twenty week pregnancy.

*Forms:* plural: emergency rooms

**emulsify**

v. to make into a suspension of two liquids which do not mix completely

The bile emulsifies fat.

*Forms:* emulsified; emulsified; emulsifying

**emulsion**

n. small drops of one liquid suspended in another

An emulsion allows two immiscible liquids to mix e.g. oil and water.

*Forms:* plural: emulsions

**endo-**

pref. inner; inside

The endoskeleton is the supporting structure in an organism.

**endocytosis**

n. process where substances are taken into a cell

Phagocytosis is an example of endocytosis.

*Forms:* no plural

**endogenous**

adj. something made by or inside an organ

Hormones are endogenous chemicals.

**endometrium**

n. mucous internal lining of the uterus

The endometrium is built up in the menstrual cycle and shed at menstruation.

*Forms:* plural: endometria

**endoplasmic reticulum**

n. network of membranes spread throughout the cytoplasm that produce membrane lipids and proteins

The endoplasmic reticulum consists of smooth and rough parts.

*Forms:* plural: endoplasmic reticulums

**endothelium**

n. tissue composed of flat cells connected by a thin membrane

Endothelial tissue lines the lumen of blood and lymphatic vessels.

*Forms:* plural: endothelia

**endothermic**

adj. a process where heat is absorbed from the surroundings

Melting is an example of an endothermic reaction.

*Forms:* more endothermic; most endothermic; the most endothermic

**endotoxin**

n. a harmful protein contained within certain bacteria and released only when the bacterium dies or is broken down

Certain gram-negative bacteria produce endotoxins.

*Forms:* plural: endotoxins

**engorged**

adj. swollen; inflamed

The child's eyes were totally engorged.

**enolization**

n. transformation of an organic compound containing a carbonyl group to an organic compound composed of ethylene and ethanol

Enolization is the process of interconverting from the keto to the enol tautomer.

*Forms:* no plural

**enteric**

adj. refers to the intestine

Methane, the hydrocarbon commonly known as marsh or swamp gas, is produced by bacteria which live in an oxygen-free environment such as at the bottom of swamps and rice paddies and in the guts of ruminant or cud-chewing animals such as cattle, sheep and camels where the bacteria help to break down food into a digestible form (enteric fermentation).

**enthalpy**

n. the total heat content of a system

In a chemical reaction the total enthalpy is the amount of energy held in all the bonds of the reactants and products. The change in enthalpy of a process is identical to the heat absorbed or evolved by the system at constant pressure.

*Forms:* plural: enthalpies

**entropy**

n. a disordered energy state where no work can be done

The second law of thermodynamics says that the entropy of the universe is always increasing. The law states that if a physical system is thermally isolated (that is, if no heat enters or leaves the system), the thermodynamic quantity known as entropy must increase or stay constant.

*Forms:* plural: entropies

**enzyme**

n. protein that is produced by cells and catalyzes specific biochemical reactions

The activation molecule is an enzyme called "tyrosine kinase" and in both individuals this molecule was not functioning properly because they had inherited a faulty kinase gene.

**enzyme specificity**

n. the tendency of biological catalysts to catalyze one or few reactions

Sucrase and urease illustrate the phenomenon of enzyme specificity.

*Forms:* plural: enzyme specificities

**epidemic**

n. an outbreak of an infectious disease

Contagious diseases often cause epidemics. The World Health Organisation (WHO) estimates that 10-;12 million people, including children, have become infected with HIV worldwide since the beginning of the epidemic.

*Forms:* plural: epidemics

**epigastric**

adj. referring to the upper abdomen

The stomach is in the epigastric region.

**epigastrium**

n. upper abdomen between the ribcage and navel

The esophagus lies in the epigastrium.

*Forms:* no plural

**epilepsy**

n. illness where the patient has fits

Epilepsy may occur after brain damage. Complex partial seizures are a common type of epilepsy, constituting about 60% of all cases when seizures that become secondarily generalised are included.

*Forms:* no plural

**episodic**

adj. occurring at separate times

The patient suffered episodic epileptic attacks. Granted that psychologists have described a whole taxonomy of memory, procedural and declarative, episodic and semantic, working and reference, should one expect similar underlying biochemical and cellular changes to be involved in each, or would every form of memory have its own special biochemistry?

**equilibrium**

n. state of a body or physical system at rest

Punctuated equilibrium refers to the characteristic of evolution having long periods of stasis 'punctuated' by evolutionary changes occurring in spurts.

*Forms:* no plural

**erectile dysfunction**

n. impotence; the inability to achieve and/or maintain an erection sufficient for successful sexual activity

An erectile dysfunction is a disorder in which the man cannot get an erection or cannot keep his erection long enough to have normal sexual relations.

*Forms:* plural: erectile dysfunctions; erectile dysfunction (ED)

**erythromycin**

n. generic name for an antibiotic that is obtained from the actinomycete *Streptomyces erythreus*; brand names: Erythrocin, Ethril or Ilosone

It is noteworthy that some apparently harmless drugs can, under the appropriate circumstances (eg, the combination of terfenadine and erythromycin), create life-threatening ventricular arrhythmias, and physicians can unwittingly expose their patients to risk.

*Forms:* plural: erythromycins

**esophagus**

n. epithelium-lined part of the gut that connects the pharynx to the stomach

Cancer of the esophagus is more common in heavy drinkers and smokers.

*Forms:* no plural

**estrogen**

n. female sex hormone

Estrogen is a steroid that is important for the development and function of the female reproductive system.

*Forms:* plural: estrogens

**ethanol**

n. ethyl alcohol; the alcohol in fermented drinks

Ethanol is produced when sugar is fermented by yeast.

*Forms:* no plural

**eukaryote**

n. unicellular or multicellular organism whose cells contain membrane-bound cell organelles similar to a nucleus

The genetic material of eukaryotes consists of a DNA double helix which is attached to chromosomes.

*Forms:* plural: eukaryotes

**eustachian tube**

n. pipe from the back of the nose to the middle ear

The Eustachian tube helps equalize pressure between the ear and the outside air.

*Forms:* no plural

**exacerbate**

v. to make worse

The pain is exacerbated by movement.

*Forms:* exacerbated; exacerbated; exacerbating

**excitation threshold**

n. this is the amount of stimulus needed to set up an action potential in a nerve cell

A nervous response is triggered when the excitation threshold is reached.

*Forms:* no plural

**excreted**

adj. discharged from the body

Ciprofloxacin is largely excreted as an unchanged substance and elimination is predominantly via the kidneys.

**exocytosis**

n. process where substances are ejected from a cell

Vesicles fuse with the cellular membrane and eject their content outside the cell by exocytosis.

*Forms:* no plural

**exogenous**

n. something applied from outside

An illness that is caused by a pathogen can be said to have an exogenous cause.

**exoskeleton**

n. an external anatomical feature that supports and protects an animal's body

Arthropods and mollusks have an exoskeleton.

*Forms:* no plural

**exothermic**

adj. process where heat is passed to the surroundings

Freezing is an example of an exothermic reaction.

*Forms:* more exothermic; most exothermic; the most exothermic

**exotoxin**

n. a very harmful poison made by a bacterial cell and released to the surroundings

Diphtheria is caused by a powerful exotoxin.

*Forms:* plural: exotoxins

**experience**

v. to feel; to endure

A diet which is bizarre or extreme may bring about weight loss if strictly adhered to but, as the brain draws on its reserves to make up for the deficiency in vital nutrients, the dieter is likely to become edgy, easily upset and to experience difficulty in making decisions.

*Forms:* experienced; experienced; experiencing

**extend**

v. to straighten out

Extensor muscles extend joints.

*Forms:* extended; extended; extending

**extensor**

n. muscle that straightens out a limb or joint

The quadriceps muscle extends the knee.

*Forms:* plural: extensors

**external genitalia**

n. reproductive organs protruding from the bodies

The female external genitalia consist of the vulva: the urethral opening, the vaginal orifice, and the clitoris.

*Forms:* only plural

**external nares**

n. nostrils

Air arrives in the respiratory tract through the external nares.

*Forms:* only plural

**eyebrow**

n. supercilium

The eyebrow helps protect the eye.

*Forms:* plural: eyebrows

**FDA**

abbr. a federal agency in the Department of Health and Human Services established to regulate the release of new foods and health-related products

The US Food and Drug Administration (FDA) has committed itself to reforms that will speed up the approval of drugs and reduce development costs.

*Forms:* Food and Drug Administration

**Fahrenheit**

n. scale of temperature

The boiling point of water according to the Fahrenheit scale is 212 degrees Fahrenheit.

*Forms:* no plural

**facilitated diffusion**

n. passive process where a carrier protein helps a molecule such as glucose move through the plasma membrane

Facilitated diffusion does not require energy.

*Forms:* no plural

**fainting**

n. passing out from weakness

Within a few weeks he began to feel better, and his depression, anxiety, tiredness, panic attacks, fainting and sweating are now a thing of the past problems, due to too much caffeine are fairly common, but not everyone has the sort of symptoms that Mike experienced.

*Forms:* no plural

**fallopian tube**

n. pair of ducts through which the eggs are moving to the uterus

Each fallopian reaches the upper end of the uterus.

*Forms:* no plural

**family**

n. group of related organisms

In taxonomy a family ranks above a genus and below an order.

*Forms:* plural: families

**farsightedness**

n. ability to see distant objects clearly but near vision is impaired

Farsightedness is another term for long-sightedness.

*Forms:* no plural

**fascicle**

n. bundle of muscle fibers

Fascicles are covered with connective tissue.

*Forms:* plural: fascicles

**fat**

n. energy source; adipose tissue

Fats enable energy to be stored and play a role in insulation.

*Forms:* plural: fats

**fatty acid**

n. a long chain of carbon atoms with a carboxyl group (COOH) at the end

Fats are made up of glycerol and fatty acids.

*Forms:* plural: fatty acids

**feedback**

n. process where the increase in a product of a reaction leads to a decrease in its rate of production and vice versa

Feedback systems are important in the control of blood sugar by insulin.

*Forms:* no plural

**female**

n. a woman

Female sex cells are called ova.

*Forms:* plural: females

**fermentation**

n. the process of releasing energy from a carbohydrate without oxygen by producing alcohol or lactic acid

Ethanol is made by a fermentation process. Fermentation is related to the whole process involved in the breakdown of glucose like glycolysis and additional steps including ethanol and lactic acid.

*Forms:* plural: fermentations

**fermium**

n. metallic element of the actinide series with chemical symbol Fm

Fermium is a radioactive element in the periodic table.

*Forms:* no plural

**ferric**

adj. iron with an oxidation number of +3

Ferric oxide is also called iron (III) oxide (compare -ferrous).

**ferrous**

adj. iron with an oxidation number of +2

Ferrous oxide is also called iron (II) oxide (compare -ferric).

**fetus**

n. embryo in later stages of development

In most cases women can still smoke, consume alcohol, abuse drugs and live in a manner that threatens the quality of life of the unborn fetus without being held accountable, except in cases where they break other non-related laws.

*Forms:* also: foetus; plural: fetuses or foetuses

**fiber**

n. indigestible cellulose in our food; roughage

It is vital to eat enough fiber in the diet.

*Forms:* plural: fibers

**fibre**

n. strand of tissue

Fibres are a vital component of various body parts.

*Forms:* plural: fibres

**fibrin**

n. blood clotting agent

Fibrin is a fibrous protein. It is widely accepted that fibrin degradation products released after the action of plasmin on fibrin contribute to the development of inflammatory changes in several organs by increasing the permeability of the vasculature to protein.

*Forms:* plural: fibrins

**fibrosis**

n. abnormal skin tissue growth

The most dramatic feature about the genes mutated so as to cause muscular dystrophy and cystic fibrosis, however, is that they were discovered by reverse genetics -- neither dystrophin nor cystic fibrosis transmembrane receptor were known to exist in the body before they were discovered by Kunkel and Tsui respectively.

**fibula**

n. thin lower leg bone

The fibula and tibia are the two bones of the lower leg.

*Forms:* plural: fibulas

**film coating**

n. a thin layer of polymeric material surrounding a tablet, capsule, or pellet

The invention relates to a film-coating composition based on cellulose derivatives and sugar alcohols with which it is possible in particular to produce coatings or colorings in the sector of pharmaceuticals, foodstuffs and agricultural products.

**filter**

n. device with small holes that separates a solid from a liquid

Coffee filters separate out the solid coffee granules (solute) from the coffee solution.

*Forms:* plural: filters

**filtrate**

n. the solid that is separated from a solution

Another name for the filtrate is the residue.

*Forms:* plural: filtrates

**filtration**

n. process where an insoluble solid is separated from a liquid

Filtration is often carried out using a filter funnel and filter paper.

*Forms:* plural: filtrations

**finasteride**

n. an inhibitor applied in hormone therapy to block the conversion of testosterone to dihydrotestosterone

Finasteride is a competitive inhibitor of 5 alpha-reductase enzyme, and is used for treatment of benign prostatic hyperplasia and androgenetic alopecia

*Forms:* no plural

**fission**

n. a method of asexual reproduction

Bacteria and amoebae reproduce by binary fission.

*Forms:* no plural

**fissure**

n. a crack e.g. in the skin

Eczema may leave open fissures in the skin.

*Forms:* plural: fissures

**flagellate**

n. an organism that moves with the help of a tail-like structure

Some parasites are flagellate e.g. the trypanosomes.

*Forms:* plural: flagellates

**flask**

n. rounded glass structure, usually with a long neck, used in experiments

You would use a flask in a laboratory. Bile acids were recovered from the Lipidex 1000 by eluting the column with 40 ml 100% methanol into the original round bottomed flask.

*Forms:* plural: flasks

**flavin adenine dinucleotide**

n. one of the cytochromes that acts as a hydrogen and electron acceptor

Flavin adenine dinucleotide is vital for cellular respiration.

*Forms:* plural: flavin adenine dinucleotides

**flex**

v. to bend

Certain muscles allow joints to flex, whilst others allow joints to extend.

*Forms:* flexed; flexed; flexing

**flexor**

n. muscle that allows a joint to bend

The hamstrings help the knee to flex.

*Forms:* plural: flexors

**fluconazole**

n. drug that treats infections caused by fungi

Candida (thrush) occurs inside the mouth and may be treated by drops, lozenges or tablets of anti-fungal drugs, e.g. "Nystatin" or "Fluconazole".

*Forms:* plural: fluconazoles

**fluid**

n. substance whose molecules move freely

Water is a fluid whereas ice is a solid.

*Forms:* plural: fluids

**fluid**

adj. able to flow easily

Dancers have very fluid movements. Even though biological factors such as the state of hydration of the body will indicate that some food or fluid intake is required, the size and type of meal are likely to be determined also by habit and life-style.

*Forms:* more fluid; most fluid; the most fluid

**fluid mosaic model**

n. the lipid bilayer structure of membranes

The fluid mosaic model is a theory of membrane structure.

*Forms:* plural: fluid mosaic models

**fluoride**

n. ester of a particular acid

Sodium Fluoride has the formula NaF.

*Forms:* plural: fluorides

**fluorine**

n. poisonous halogen with the chemical symbol F

Fluorine is a gas at room temperature. Fish is an excellent source of many important nutrients, including protein (needed for body-building and repair), vitamins (A, B and D) and minerals (calcium, iodine and fluorine).

*Forms:* plural: fluorines

**flushing**

n. reddening of the skin

I often experience the descent of the Kundalini down the front side of my body, into my chest area (can't be more specific) and this causes a bright red flushing in the skin of my chest, which I believe is caused by the energy release.

*Forms:* no plural

**foam**

v. to form bubbles

Rabies causes foaming at the mouth.

*Forms:* foamed; foamed; foaming

**foam**

n. gas finely dispersed in either a solid or a liquid

A fire extinguisher contains foam.

*Forms:* plural: foams

**folic acid**

n. a form of the water-soluble Vitamin B9.

Folic acid deficiency leads to anemia.

*Forms:* no plural

**forebrain**

n. prosencephalon

The brain can be divided into the forebrain, midbrain and hindbrain.

*Forms:* plural: forebrains

**formaldehyde**

n. a fixative; a preservative

Formaldehyde is used to preserve specimens e.g. a body for dissection.

*Forms:* plural: formaldehydes

**formula**

n. symbols showing what elements a compound contains

The formula for calcium fluoride is CaF.

*Forms:* plural: formulas; formulae

**freezing point**

n. temperature at which a liquid turns to a solid at a particular pressure

The freezing point of water is 32 degrees Fahrenheit.

*Forms:* plural: freezing points

**frontal**

adj. relating to the forehead

He has a severe frontal headache.

**frontal bone**

n. part of the human skull that resembles a cockleshell in form

The frontal bone connects to the nasal bones.

*Forms:* plural: frontal bones

**frontal lobe**

n. part of the cerebral hemisphere that controls impulses and personality

A frontal lobotomy is an operation which removes part of the frontal lobe.

*Forms:* plural: frontal lobes

**fructose**

n. a type of sugar

Fructose is a sugar found in fruits.

*Forms:* plural: fructoses

**fungicidal**

adj. able to kill or inhibit the growth of sporing organisms

Some antibiotics are fungicidal.

*Forms:* more fungicidal; most fungicidal

**fungicide**

n. chemical used to kill organisms that reproduce by spores

Fungicides may be sprayed on food crops to kill pathogens.

*Forms:* plural: fungicides

**fungus**

n. organism that reproduces by sporing; e.g. a mushroom

Have you heard the one about the mushroom? What a fun-gi (fun guy) he is! Fungi absorb food whereas animals ingest it.

*Forms:* plural: fungi

**funnel**

n. device with a wide open end and a narrow end which allows liquids to be poured into a container with a small opening

Funnels are often used in scientific experiments to avoid spilling liquids.

*Forms:* plural: funnels

**furosemide**

n. popular diuretic used to treat hypertension and edema;  
trade name: Lasix

Furosemide is a potent diuretic drug used in both human  
and veterinary medicine.

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**GLC**

abbr. a sensitive method for analyzing liquid mixtures

An application of GLC (gas-liquid chromatography) is measuring the alcohol level in blood or urine.

*Forms:* gas-liquid chromatography

**galactosamine**

n. an amino sugar

Galactosamine is present in cartilage.

*Forms:* no plural

**galactose**

n. a simple sugar that is converted to glucose in the liver

The milk sugar lactose contains galactose.

*Forms:* no plural

**gamete**

n. sex cell

The female gamete is called an ovum.

*Forms:* plural: gametes

**gap junction**

n. membrane area that allows communication between adjacent cells' cytoplasm

Gap junctions act as membrane pores.

*Forms:* plural: gap junctions

**gas**

n. a substance which exists in a vapor form at room temperature (neither a liquid nor a solid)

Examples of gases include oxygen, hydrogen and helium.

*Forms:* plural: gases

**gas-liquid chromatography**

n. a sensitive method for analyzing liquid mixtures

An application of gas-liquid chromatography is measuring the alcohol level in blood or urine.

*Forms:* no plural

**gastric**

adj. relating to the stomach

He had gastric pain and was found to have a gastric ulcer. Most patients clinically suspected of dumping or diarrhoea after having a vagotomy or gastrectomy did indeed exhibit abnormally rapid gastric emptying.

**gastroenteritis**

n. infection of the gut causing diarrhea and vomiting

Gastroenteritis may cause dehydration.

*Forms:* no plural

**gene**

n. control characteristics of the plant

Genes are passed on in chromosomes.

*Forms:* plural: genes

**gland**

n. group of cells specialized to produce secretory substances

There are two types of gland: exocrine or endocrine.

*Forms:* plural: glands

**glucagon**

n. a hormone made in the pancreas

Glucagon makes the liver release glucose.

*Forms:* no plural

**glucosamine**

n. an amino sugar

Glucosamine is present in chitin which makes up the hard exoskeleton in insects, arthropods and crustacean.

*Forms:* no plural

**glucose**

n. a monosaccharide (sugar) with 6 carbons

Glucose is produced during photosynthesis.

*Forms:* no plural

**glycemic index**

n. ranking system for carbohydrates based on their immediate effect on blood glucose levels

The glycemic index or GI describes this difference by ranking carbohydrates according to their effect on our blood glucose levels.

*Forms:* no plural

**glycerol**

n. one of the building blocks of fats; an alcohol with three carbons and three hydroxyl groups

Fat is broken down into fatty acids and glycerol. Fats contain glycerol and fatty acids.

*Forms:* no plural

**glycocalyx**

n. lipid and protein coat which forms part of the plasma membrane in animal cells

The glycocalyx has a role in intercellular communication. The potential for improving ocular drug delivery by using a "smart" soluble polymer, which can interact with the corneal glycocalyx and prolong drug retention, is considerable.

*Forms:* plural: glycocalyces

**glycogen**

n. the polysaccharide in which glucose is stored in animal tissues

Glycogen is stored in liver and muscle in man. Glycogen is produced from complex carbohydrate, and therefore the energy required for training is ultimately derived from the complex carbohydrates you eat. Carbohydrates are the sugars, and the compounds compounded from sugars, such as starch, glycogen, and cellulose.

*Forms:* no plural

**glycolipids**

n. proteins joined with carbohydrates that are found on the surface of cells

Glycolipids play a role in cell-to-cell interaction.

*Forms:* plural: glycolipids

**glycolysis**

n. process generating ATP in which glucose is broken down

Reactions of glycolysis occur in the cytoplasm and involve the oxidation of glucose into two molecules of pyruvate and the production of ATP. The process of glycolysis, the first stage in the utilization of glucose to produce energy, is similar in bacteria and in our own muscles.

*Forms:* no plural

**glycoprotein**

n. proteins joined to carbohydrate that are found on the surface of cells

Most proteins that cells secrete are in the form of glycoproteins. It is currently thought that cholesterol gall stones arise because of a triple hepatobiliary defect: cholesterol supersaturation of gall bladder bile, reduction gall bladder contractility, and increased rate of cholesterol nucleation, probably due to mucin glycoprotein hypersecretion.

*Forms:* plural: glycoproteins

**golgi body**

n. stacks of membranous vesicles that modify; package and sort proteins to other organelles

The golgi body is a protein-processing apparatus.

*Forms:* plural: golgi bodies

**golgi complex**

n. stacks of membranous vesicles that modify; package and sort proteins to other organelles

The golgi complex is a protein-processing apparatus.

*Forms:* plural: golgi complexes

**gonad**

n. sex organs where the reproductive cells are made

The male gonads are the testes. In larger specimens the base of the arms may be enlarged, three or more arm segments may be effected, this is an indication of the degree of gonad development.

*Forms:* plural: gonads

**gonadotrophin**

n. hormone made in and released from the pituitary gland that act on the gonads (sex organs)

FSH is an example of a gonadotrophin. If we give a woman controlled quantities of a substance called human gonadotrophin, we can make her produce ova to order, as it were.

*Forms:* plural: gonadotrophins

**grapefruit**

n. citrus X paradisi

Breakfast is an English affair, with fresh grapefruit, kedgereee, kippers and bacon, eggs and tomatoes.

*Forms:* plural: grapefruits

**grief**

n. sadness felt after a loss; for example; a death of a close relative

Healing our grief is a process that requires time and effort.

*Forms:* plural: griefs

**grieve**

v. to experience the emotional effects of a loss

She was finding it difficult to grieve for her father.

*Forms:* grieved; grieved; grieving

**HIV protease inhibitor**

n. drug that stops or reduces the ability of a virus to proliferate

The advent of highly active antiretroviral therapy (HAART), including the use of HIV protease inhibitors (PIs) has significantly reduced the morbidity and mortality of AIDS in HIV infected patients.

*Forms:* plural: hiv protease inhibitors

**Huntington's Chorea**

n. inherited disorder caused by a single gene defect, which is dominantly inherited

Huntington's chorea usually appears in early middle age.

*Forms:* no plural

**hair loss**

n. malfunction of the body that is also called alopecia areata

Hair loss as a result of antibiotics, pregnancy, dieting etc takes place three to four months later.

*Forms:* no plural

**halide**

n. halogen with a more electropositive element

Acyl halides are substances with carbonyl groups bonded to halides. In a conventional film emulsion the silver halide grains look like cubes, octahedra or irregular pebbles.

*Forms:* plural: halides

**hallucinogen**

n. drug which affects the central nervous system and cause people to see or experience unusual things outside the range of normal perception

LSD is one of the most popular hallucinogens. Collette Margaret McCarthy, 21, a receptionist, never recovered consciousness and, despite a liver transplant, died on 16 August, 16 days after taking the amphetamine-based hallucinogen, Southwark Coroner's Court in south London was told.

*Forms:* plural: hallucinogens

**haloalkane**

n. compound formed by replacing one or more hydrogen atoms in alkanes with halogen atoms

Chloromethane is an example of a haloalkane.

*Forms:* plural: haloalkanes

**halogen**

n. the elements fluorine, iodine, chlorine, bromine

Halogens belong to group V11 in the periodic table.

*Forms:* plural: halogens

**haploid**

adj. pertaining to cells with a single set of chromosomes that aren't paired

Meiosis produces haploid gametes. The production of haploid cells by the diploid requires a special series of cell divisions "meiosis", during which genetic exchange between the two sets of chromosomes takes place.

**headache**

n. pain in the uppermost part of the body

The bumpiness had churned her stomach and given her a headache, but she kept her complaints to herself.

*Forms:* plural: headaches

**heart disease**

n. illness with the following symptoms: shortness of breath, palpitations (skipped beats or a 'flip-flop' feeling in the chest); weakness or dizziness; nausea, sweating

Several studies have reported a positive association with ischaemic heart disease, but after correction for the effect of cholesterol serum triglyceride does not appear to be an independent risk factor.

*Forms:* plural: heart diseases

**heartburn**

n. burning pain the chest area due to reflux of stomach acid; indigestion

Eating too much or too quickly may cause heartburn. Gastro-intestinal disorders including indigestion, heartburn, and constipation, may be more difficult to assess in an obese individual, as the information obtained from a medical examination may be limited.

*Forms:* no plural

**heat**

n. high temperature

After days in searing heat, Australian aborigines withstand cold nights in the desert without shivering; possible mechanisms are enhanced metabolism, a lower threshold for the start of shivering, and a slight overnight fall in core temperature.

*Forms:* no plural

**helium**

n. first member of group V111; a noble gas

Helium is the second commonest element; hydrogen is the most common. Hydrogen, helium and methane would not condense to form cloud particles at the pressures and temperatures through the cloud regions and therefore their relative abundances apply throughout the atmosphere.

*Forms:* no plural

**hematic**

adj. of blood

Hematic cells are also known as blood cells.

**hematopoiesis**

n. the process by which blood cells are made

Hematopoiesis occurs in the liver, bone marrow, spleen and thymus.

*Forms:* no plural

**hemiacetal**

n. molecule containing an alkyl group

When an equivalent of alcohol is added to an aldehyde or ketone, the product is hemiacetal.

*Forms:* no plural

**hemoglobin**

n. a chemical that carries oxygen in red blood cells

Hemoglobin and oxygen combine in the lungs to form oxyhemoglobin.

*Forms:* no plural

**hemopoiesis**

n. the process by which blood cells are made

Hemopoiesis occurs in the liver, bone marrow, spleen and thymus.

*Forms:* no plural

**hemorrhage**

n. blood loss due to vessel wall damage

Rupture of a major blood vessel will lead to massive hemorrhage.

*Forms:* plural: hemorrhages

**hemorrhage**

v. to bleed (usually a large amount)

Women may hemorrhage after delivering twins.

*Forms:* hemorrhaged; hemorrhaged; hemorrhaging

**hepatic**

adj. relating to the liver

Hepatic disease may make the patient extremely ill. Synthesis of proteins by the human liver, both structural and secretory, is of interest and relevance in patients because of the hepatic involvement in the acute phase response.

**hepatitis**

n. inflammation of the liver which is caused by a toxin or virus

It seems that, in evaluating the significance of pre-S protein display in liver in chronic hepatitis B virus infection, special emphasis should be made on their topographical (cytoplasmic or membranous) distribution as well as the quantitative expression, as suggested in the study of intrahepatic expression of HBsAg and HBcAg in chronic type B hepatitis.

*Forms:* no plural

**heterotroph**

n. organism that depends on autotrophs (producers) for food and oxygen

Animals are multicellular heterotrophs.

*Forms:* plural: heterotrophs

**heterotrophic**

adj. related to organisms requiring ingested nutrition which they break down to receive energy

Heterotrophic organisms process glucose and other organic molecules to release stored energy.

**hexose**

n. sugars with 6 carbons

Glucose and fructose are hexose sugars. Aminoacid stimulated sodium absorption occurs independently of hexose stimulated sodium absorption via a separate nutrient-sodium cotransporter.

*Forms:* plural: hexoses

**hist-**

pref. tissue

Histology is the study of tissues.

**histamine**

n. chemical made from the amino acid histidine that is released in an immune reaction (especially allergic reactions)

Histamine causes blood vessel enlargement and smooth muscle contraction. Activation of protein kinase C may have a role in the short term regulation of acid secretion, as in the inhibitory action of high concentrations of carbachol on histamine stimulated secretory activity in guinea pig parietal cells.

*Forms:* no plural

**histologist**

n. a scientist who studies microscopic tissue structures

A histologist looks at the histological structure of a tissue under a microscope.

*Forms:* plural: histologists

**histology**

n. the study of the microscopic structure of tissues

Histology is taught to medical students. Histology is the study of tissue sectioned as a thin slice, using a microtome.

*Forms:* plural: histologies

**hoarse**

adj. refers to a voice that is croaky and unable to produce a full range of sound

A symptom of laryngitis is a hoarse voice.

**homeostasis**

n. the process that maintains balance or equilibrium of an organism's internal environment

Body temperature is controlled by homeostasis. Because ecosystems in a steady state possess the property of self-regulation this is analogous to mechanisms such as homeostasis in living organisms, feedback principles in cybernetics and servomechanisms in systems engineering.

*Forms:* no plural

**hormone**

n. chemical secreted in small amounts from endocrine glands that passes in the bloodstream to another tissue or organ where it alters the function or structure of that organ

Hormones coordinate the growth and activities of living things. It is equally apparent today when many people go to considerable lengths to maintain the appearance of youthfulness by the use of vitamins, beauty preparations of all descriptions, hormone treatment, plastic surgery and much else besides.

*Forms:* plural: hormones

**hydrochlorothiazide**

n. diuretic drug to treat hypertension; trade name: Esidrix

In our current study the reduction in microalbuminuria was observed only with enalapril, even though blood pressure was lowered in hydrochlorothiazide treated patients.

**hydrolysis**

n. reaction where molecular bonds are broken by reaction with water

Salt hydrolysis changes the PH of a salt solution. The role of ultrasound in organic synthesis concentrates on classical reactions such as reduction, carbanions, alkylation, ester hydrolysis and acylation of aromatics with a mention of biological and sonochemical reactions, together with a list of references.

*Forms:* no plural

**hydrolyze**

v. to break down a compound by means of water

Dipeptidases hydrolyzes pairs of amino acids.

*Forms:* hydrolyzed; hydrolyzed; hydrolyzing

**hydrophilic**

adj. having an affinity with water; readily absorbing water

A phospholipid molecule has a hydrophilic end a hydrophobic end. Acids are hydrophilic because they are soluble in water.

**hydrophobic**

adj. water-hating; unable of dissolving in water

Hydrophobic interactions occur between non-polar molecules e.g. water and oil. Hydrophobic parts of a cell membrane consisting of a bilayer with proteins are arranged at the inferior surface of the membrane. For example, we have synthesised film physisorbable phosphorylcholine containing polymers for coating hydrophobic surfaces such as PVC, polyethylene, polypropylene, etc.

*Forms:* more hydrophobic; most hydrophobic; less hydrophobic; least hydrophobic

**hyperopia**

n. medical condition of long sightedness

In hyperopia distant objects can be seen clearly whilst close objects are blurred.

*Forms:* no plural

**hypertension**

n. high blood pressure

Hypertension is often asymptomatic. Moreover, the prevalence of hypertension, as defined by a diastolic blood pressure higher than 100mmHg or by antihypertensive treatment, was similar in the three genotypes: 22.0%, 17.7% and 20.3% in genotypes DD, ID and II respectively (nonsignificant differences).

*Forms:* no plural

**hypertonic**

adj. having a higher osmotic pressure than another solution

A cell placed in a hypertonic solution will shrink.

*Forms:* more hypertonic; most hypertonic; the most hypertonic

**hypertrophy**

adj. over-development of a tissue (or part of) which leads to an increase in size and volume of the tissue

Hypertrophy is a normal process in the case of the endometrium.

*Forms:* plural: hypertrophies

**hyperventilation**

n. overbreathing

Hyperventilation can occur in an anxiety attack. Hyperventilation is a process of breathing rapidly, inhaling and exhaling from the chest rather than from the stomach.

*Forms:* no plural

**hypochondria**

n. condition where a healthy person worries excessively that they are ill

Hypochondria may be difficult to treat. Hypochondria is thought to be a result of repressed emotions and secret fears, and it is far more likely to develop in families where there is a preoccupation with illness, or in people who have a great deal of contact with invalids as children.

*Forms:* plural: hypochondrias

**hypochondriac**

n. a healthy person who worries excessively about their health and believes they are ill

Doctors may become hypochondriacs because they think and learn so much about illness!

*Forms:* plural: hypochondriacs

**hypochondriachal**

adj. worrying excessively about having an illness when in fact there is none

Anxiety can make people more hypochondriachal.

*Forms:* more hypochondriachal; most hypochondriachal; the most hypochondriachal

**hypoglycemia**

n. low glucose concentration in the blood

Symptoms of hypoglycemia are fatigue, confusion, drowsiness, irritability fits and collapse. Glucose metabolism and insulin secretion are disturbed; hypoglycemia is common and potentially lethal but usually responds promptly to dietary correction.

*Forms:* no plural

**hypotonic**

adj. having a lower osmotic pressure than another solution

A cell placed in a hypotonic solution will expand and may burst.

*Forms:* more hypotonic; most hypotonic; the most hypotonic

**hysterectomy**

n. a surgical operation where the womb is removed

Hysterectomy may be performed for cancer of the uterus. The average age of menopause in those who had not had a hysterectomy was 48 years (range 42 to 59) and they were 5 years (mean; range 1 to 18) postmenopausal at the time of the study.

*Forms:* plural: hysterectomies

<p><b>I.Q.</b> abbr. measure of an individual's intelligence</p> <p>The I.Q. is an index of intellectual development.</p> <p><i>Forms:</i> intelligence quotient</p>	<p><b>IVI</b> abbr. a series of fluids or drugs that are run into a vein over a set amount of time</p> <p>Intravenous Infusion (IVIs) are commonly used in hospitals to rehydrate patients.</p> <p><i>Forms:</i> intravenous infusion</p>
<p><b>ice</b> n. frozen water</p> <p>Ice forms below 32 degrees Fahrenheit.</p> <p><i>Forms:</i> no plural</p>	<p><b>icterus</b> n. yellowing of the skin and the whites of the eyes caused by an accumulation of bile pigment (bilirubin) in the blood</p> <p>Another name for icterus is jaundice.</p> <p><i>Forms:</i> no plural</p>
<p><b>ideal</b> adj. perfect</p> <p>An ideal exam situation is when you can answer all the questions!</p> <p><i>Forms:</i> more ideal; most ideal</p>	<p><b>ideal gas</b> n. substance which obeys the Boyle's law</p> <p>No known gas behaves as an ideal gas under all conditions. An ideal gas or perfect gas is a hypothetical gas consisting of identical particles of zero volume, with no intermolecular forces.</p> <p><i>Forms:</i> plural: ideal gases</p>
<p><b>ileum</b> n. part of the small intestine</p> <p>The ileum joins the jejunum to the cecum.</p> <p><i>Forms:</i> ileums</p>	<p><b>imine</b> n. molecule derived from ammonia and containing the NH group and a nonacid group</p> <p>An imine is a substance with a nitrogen atom double-bonded to a carbon atom.</p> <p><i>Forms:</i> plural: imines</p>
<p><b>immature</b> adj. unfinished stage of growth or development; unripe; childish</p> <p>You're so immature! Act your age!</p> <p><i>Forms:</i> more immature; most immature; the most immature</p>	<p><b>immediate medical attention</b> n. prompt treatment or care</p> <p>When a medical problem arises that requires immediate attention, it is often difficult to know if it is truly an emergency, or whether it is simply an urgent medical issue.</p> <p><i>Forms:</i> no plural</p>

**immune system**

n. the organs and cells that provide defense against tissue invasion or damage

The immune system includes the skin, membranes and immune cells e.g. the white blood cells.

*Forms:* plural: immune systems

**immunity**

n. ability to resist infection, because of its white blood cells and antibodies

Babies have immunity to certain infections due to maternal antibodies passing across the placenta.

*Forms:* no plural

**immunization**

n. vaccination

Many people believe immunization may have serious side effects. Measures to increase people's resistance to infection are also important in prevention, and it is in this context that immunization has played such a major role.

*Forms:* no plural

**immunize**

v. to inoculate; to vaccinate

Children in the U.S. are immunized against diphtheria.

*Forms:* immunized; immunized; immunizing

**immuno-**

pref. condition of being insusceptible to a disease

An immunoreaction is an immune reaction. AIDS (Acquired Immune Deficiency Syndrome) is a condition caused by a virus called HIV (Human Immuno Deficiency Virus).

**immunocompetent**

adj. able to resist disease and produce adequate responses

Immunocompetent people can fight infections more easily than immunodeficient people.

*Forms:* more immunocompetent; most immunocompetent

**immunocompromised**

adj. unable to resist disease

People with AIDS are immunocompromised.

*Forms:* more immunocompromised; most immunocompromised

**immunodeficient**

adj. unable to become resistant against diseases

Immunodeficient people have a higher risk of getting infections.

*Forms:* more immunodeficient; most immunodeficient

**immunology**

n. the study of the body's defense system against illness and invasion

Immunology includes the laboratory techniques used to study interactions between antigens and antibodies.

*Forms:* plural: immunologies

**impotence**

n. inability to get and maintain erections

While suffering from a temporary bout of impotence in my early twenties, I considered all the possible remedies (from exotic aphrodisiacs to penile splints) before paying a visit to my local GP, who consulted some weighty medical tome before advising me to avoid wearing excessively tight trousers.

*Forms:* no plural

**improvement**

n. process of getting better

We have had a good year with minor upsets, such as a cataract operation for me which was no trouble at all, and has resulted in a dramatic improvement in my eyesight.

*Forms:* plural: improvements

**in vitro**

n. referring to processes and experiments occurring outside an organism in an artificial environment

In vitro fertilization helps couples who can not conceive.

*Forms:* no plural

**in vivo**

n. referring to processes or experiments occurring inside an organism

It is important to test drugs in vivo as well as in a laboratory.

*Forms:* no plural

**incus**

n. one of the ossicles

The incus is also known as the anvil.

*Forms:* plural: incuses

**individual**

adj. single; particular; separate

Every person has individual likes and dislikes.

*Forms:* more individual; most individual; the most individual

**individual**

n. a single person or entity

Which individual didn't wash their dishes after supper?

*Forms:* plural: individuals

**inert**

adj. chemically unreactive

The noble gases are inert gases. The inert gas argon is added to help to start the discharge because the vapour pressure of the mercury is very low.

**infection**

n. situation created when microbes enter the body and cause a disease

There is no specific treatment for many viral infections.

*Forms:* plural: infections

**infectious**

adj. able to cause a disease

Viruses and bacteria are infectious agents.

*Forms:* more infectious; most infectious; the most infectious

**infertility**

n. inability to conceive (get pregnant)

Infertility increases with age.

*Forms:* plural: infertilities

**inflamed**

adj. sore; red and swollen

An inflamed area needs time to heal.

*Forms:* more inflamed; most inflamed; the most inflamed

**inflammation**

n. body's response to injury causing the symptoms of redness; soreness; heat; swelling and loss of function

Inflammation can be acute or chronic. Hypothetically, anti-lactoferrin autoantibodies could, by counteracting the anti-inflammatory effects of lactoferrin, aggravate and prolong mucosal inflammation induced by several different mechanisms, and the antibodies may therefore have pathogenetic significance even though their occurrence does not seem to correlate with disease activity.

*Forms:* plural: inflammations

**inflammatory**

adj. arousing swellings

Inflammatory responses are triggered by the body in reaction to physical damage. Radiation may induce diarrhoea by a non-inflammatory mechanism such as bile acid malabsorption (although only as a feature of late radiation damage to the small bowel).

**influenza**

n. contagious viral illness that can cause fever; airway problems; muscle pain or more severe symptoms

Epidemics of influenza may occur which kill a lot of people. When appropriate peptides are added to cultured animal cells the ability of viruses such as measles and influenza virus to infect the cells is considerably reduced

*Forms:* plural: influenzas

**information technology**

n. methods of calculating and processing data communications

IT has helped revolutionize the practice of medicine.

*Forms:* plural: information technologies

**inguinal**

adj. relating to the groin area

The area where the lower abdomen meets the top of the thigh is the inguinal region.

**inheritance**

n. the process by which characteristics pass from generation to generation via the transfer of genes

An individual's genetic inheritance is the total of all the genes transmitted from their parents.

*Forms:* plural: inheritances

**inhibit**

v. to stop or slow down a biological event or organ function

High temperatures inhibit enzyme catalysis.

*Forms:* inhibited; inhibited; inhibiting

**inhibition**

n. the process of stopping or slowing down a chemical reaction or organ function

Heavy metal ions can cause enzyme inhibition.

*Forms:* no plural

**inhibitor**

n. something that stops or slows down a biological event or function

Copper or lead are enzyme inhibitors.

*Forms:* plural: inhibitors

**inorganic chemistry**

n. science which deals with all the elements except for carbon

Salt and ammonia are studied in inorganic chemistry.

*Forms:* no plural

**insecticide**

adj. having the ability to kill insects

Many insecticidal chemicals are not used any more in the U.S. because they can harm humans as well. Darkened traps are given various animal and insecticide odours which dupes the fly into thinking that it is biting a cow.

*Forms:* more insecticidal; most insecticidal; the most insecticidal

**insecticide**

n. a chemical used to kill insects

Insecticides may be toxic to humans. The most effective way of combatting river blindness until fairly recently was by spraying the breeding grounds with insecticide, a process which will continue for several years yet.

*Forms:* plural: insecticides

**insoluble**

adj. not able to dissolve

Oil is insoluble in water.

*Forms:* more insoluble; most insoluble; the most insoluble

**insomnia**

n. difficulty falling or staying asleep

Insomnia is a common complaint in which the sufferer has poor sleep that is often broken many times during the course of the night.

*Forms:* no plural

**insomniac**

n. person who is unable to sleep

Insomniacs may ask for tranquilizers to help them sleep.

*Forms:* plural: insomniacs

**insulate**

v. to prevent or reduce the loss of energy from a surface

Skin and adipose tissue insulate the body.

*Forms:* insulated; insulated; insulating

**insulation**

n. material used to prevent or reduce the loss of energy from a surface

Fat is excellent insulation for warm-blooded animals.

*Forms:* no plural

**insulin**

n. a hormone produced by the pancreas that helps control the blood glucose level

Insulin replacement is needed in some cases of diabetes.

*Forms:* no plural

**integumentary system**

n. the skin and related structures such as hair and nails

The integumentary system helps control body temperature and detect sensory stimuli.

*Forms:* plural: integumentary systems

**inter-**

pref. between

Intercellular fluid is fluid that lies between cells.

**intercellular**

adj. describing the space between

The gap junction is a form of intercellular connection.

**intermediate filament**

n. fibrous cellular structure

An example of an intermediate filament is keratin.

*Forms:* plural: intermediate filaments

**intermembrane space**

n. the gap between the two-layered cellular envelope

The mitochondrion has a double membrane with an intermembrane space.

*Forms:* plural: intermembrane spaces

**internal**

adj. inside

An internal examination may be needed to check a woman's reproductive system.

*Forms:* more internal; most internal; less internal; least internal

**intestinal**

adj. enteric; enteral

We place the stethoscope on the abdomen to listen to the intestinal sounds.

**intestine**

n. the gut; alimentary canal

The intestine is a long, coiled tube in the abdomen.

*Forms:* plural: intestines

**intra-**

pref. within

An intravenous injection is one that enters the vein.

**intravenous**

adj. into a blood vessel

An intravenous line is a tube that is placed inside the vein into which drugs and fluids are given.

**intravenous infusion**

n. a series of fluids or drugs that are run into a vein over a set amount of time

Intravenous infusions are commonly used in hospitals to rehydrate patients. When admitted to our hospital, all patients were managed by fluid resuscitation (intravenous infusion of colloids to achieve haemodynamic stabilisation or a systolic blood pressure above 90 mm Hg) followed by endoscopy and mixed intravariceal and paravariceal injection sclerotherapy.

*Forms:* plural: intravenous infusions

**iodide**

n. binary compound; salt or ester of hydriodic acid

Potassium iodide is used to test for oxides.

*Forms:* plural: iodides

**ion**

n. charged atom or molecule

An ion is positive if it has lost electrons or negative if it has gained electrons.

*Forms:* plural: ions

**iron**

n. trace element with the chemical symbol Fe

Iron is a component of hemoglobin and myoglobin.

*Forms:* no plural

**irritability**

n. the state of being easily inflamed or painful; the state of being easily angered

Irritability in babies may be caused by an infection.

*Forms:* plural: irritabilities

**ischemic**

adj. lack of blood supply

Ischemic heart disease is a common disease in the west.

*Forms:* more ischemic; most ischemic; the most ischemic

**iso-**

pref. equal

Isometric contraction of muscle is a contraction that does not cause muscle shortening.

**isobaric**

adj. referring to equal weights or pressure

In an isobaric process the pressure of the system stays constant.

**isolate**

v. to place apart from others

Bacteria are isolated in order to produce pure cultures.

*Forms:* isolated; isolated; isolating

**isoleucine**

n. an amino acid

Isoleucine is an essential amino acid.

*Forms:* plural: isoleucines

**isomer**

n. a compound with the same elements but different atomic arrangements

Lactose and sucrose are isomers.

*Forms:* plural: isomers

**isomerization**

n. This process changes straight chain alkanes into branched chain compounds by passing them over a catalyst

Apparently, epoxide to ketone isomerization is a fortuitous reaction of no physiological significance.

*Forms:* no plural

**isomerize**

v. change into another chemical compound

Enzymes catalyze compounds to isomerize to a different form.

**isosorbide dinitrate**

n. generic name for drug which is used pharmacologically as a vasodilator; brand names: Isordil, Sorbitrate

Isosorbide dinitrate, an organic nitrate, is a vasodilator with effects on both arteries and veins.

*Forms:* plural: isosorbide dinitrates

**isothermal**

adj. referring to constant temperatures

In an isothermal process the temperature of the system stays constant.

**isotonic**

adj. having the same composition as the body fluids; having equal tension

Sports drinks often claim to be isotonic. Gentle lavage with warm isotonic saline (37C) and air was used to clear the entire small intestine of residual contents before instilling 75 g of cholera toxin in 5 ml of isotonic saline for two hours to induce a stable secretory state.

*Forms:* ore isotonic; most isotonic; the most isotonic

**isotope**

n. atoms of the same element with the same number of protons, different numbers of neutrons and therefore different mass numbers

Elements are usually present naturally as a mixture of isotopes. Carbon 14 is a radioactive isotope of carbon that is absorbed by all living things; the proportion of carbon 14 to other isotopes of carbon remains constant, but when something dies, the carbon 14 in it decays at a known rate, while the other isotopes stay the same.

*Forms:* plural: isotopes

**itchy**

adj. affected with the urge to scratch

Eczema is an itchy skin disease.

*Forms:* more itchy; itchier; most itchy; itchiest; the most itchy; the itchiest

**itis**

suf. inflammation or infection

Colitis is infection or inflammation of the colon.

**itraconazole**

n. generic name for an oral antifungal drug that is used to treat fungal nail disease; brand name: Sporanox

Serum concentrations should also be assayed in all patients receiving vancomycin, flucytosine, or cycloserine; neonates and perhaps those under 4 years old receiving chloramphenicol; those with severe sepsis receiving teicoplanin; and patients receiving prophylactic itraconazole.

*Forms:* plural: itraconazoles

**J**

abbr. unit of energy equal to the work done when the point of application of a 1-newton force is displaced through a distance of 1 meter in the direction of the force

One calorie is equal to 4.1855 joules.

*Forms:* Joule

**jaundice**

n. yellowing of the skin and the whites of the eyes caused by an accumulation of bile pigment (bilirubin) in the blood

Jaundice is also called icterus.

*Forms:* no plural

**joint**

n. part of the body where connecting bones are held together by connective tissue and are able to move

The knee is an example of a joint.

*Forms:* plural: joints

**joule**

n. unit of energy equal to the work done when the point of application of a 1-newton force is displaced through a distance of 1 meter in the direction of the force

One calorie is equal to 4.1855 joules.

*Forms:* plural: joules

**juvenile**

adj. relating to youth

Juvenile diabetes is also called type 1 diabetes.

*Forms:* more juvenile; most juvenile; the most juvenile

**keratin**

n. hard protein found in skin; hair or nails

Keratin is a tough and fibrous protein.

*Forms:* no plural

**ketoconazole**

n. generic drug that treats infection caused by a fungus

Ketoconazole cream is used to treat tinea corporis (ringworm; fungal skin infection that causes a red scaly rash on different parts of the body), tinea cruris (jock itch; fungal infection of the skin in the groin or buttocks), tinea pedis (athlete's foot; fungal infection of the skin on the feet and between the toes), tinea versicolor (fungal infection that causes brown or light colored spots on the chest, back, arms, legs, or neck), and yeast infections of the skin.

**ketone**

n. an organic compound that contains two alkyl groups attached to a carbonyl group

Fructose is a ketone. In many plants, secondary compounds are concentrated in the trichomes and, for example, a ketone is thus concentrated in the hairs of tomato plants, but that same ketone has been found in the defence secretions of termites and caterpillars.

*Forms:* plural: ketones

**kinase**

n. an agent that changes the inactive form of an enzyme to the active form; an enzyme that catalyses the transfer of phosphate groups

A kinase works on proenzymes. The C-terminal cytosolic portion of the human histamine H<sub>2</sub> receptor exhibits several sites at which serines are flanked by basic residues and could therefore be a substrate for protein kinase C.

*Forms:* no plural

**kinetic energy**

n. power of movement

Kinetic energy is needed for a person to run or move.

*Forms:* plural: kinetic energies

**labia**

n. the external folds of tissue that surround the vagina

The labia are composed of the labia minora and the labia majora.

*Forms:* plural: labiae

**lactate**

v. to secrete milk

Mothers lactate after giving birth so that they can feed their young.

*Forms:* lactated; lactated; lactating

**lactation**

n. the secretion of milk by the mammary glands

Hormones such as oxytocin and prolactin control lactation.

*Forms:* plural: lactations

**lacteal**

adj. related to lymph-carrying vessels

Lacteals lead into the lymphatic system.

**lactic acid**

n. chemical that is formed when glucose is metabolized in the absence of oxygen (anaerobic respiration)

A build up of lactic acid can cause muscle pain and fatigue.

*Forms:* plural: lactic acids

**lateral**

adj. related to the side

A lateral view of the body is a side view.

*Forms:* more lateral; most lateral; the most lateral

**law of conservation of energy**

n. principle stating that the total power of a system remains constant

The law of conservation of energy is important for understanding mechanical systems.

*Forms:* no plural

**law of independent assortment**

n. states that different traits are inherited with no relation of each other e.g. eye color and height

The law of independent assortment is the second part of Mendel's law.

*Forms:* no plural

**law of segregation**

n. one allele is inherited from each parent giving 2 alleles for each trait

Segregation of each allele pair occurs when the gametes are formed. The law of segregation is the first part of Mendel's law.

*Forms:* no plural

**law of thermodynamics**

n. principle explaining the relationship between different forms of energy

There are three laws of thermodynamics.

*Forms:* no plural

**lecithin**

n. phosphatidylcholine; phospholipid formed from phosphatidic acid and choline

Lecithin is a structural component found in cell membranes.

*Forms:* no plural

**leucocyte**

n. white blood cell with an immune role found in the lymphatic system

Another name for leucocytes is lymphocytes.

*Forms:* plural: leucocytes

**leukemia**

n. type of blood cancer which is characterized by rapid growth of white blood cells

There are many types of leukemias that typically affect different age groups of the population.

*Forms:* plural: leukemias, singular: leukaemia or leucaemia

**leukocyte**

n. white blood cell

The protective association between the human leukocyte antigen HLA-B53 and severe malaria was investigated by sequencing of peptides eluted from this molecule followed by screening of candidate epitopes from pre-erythrocytic-stage antigens of *Plasmodium falciparum* in biochemical and cellular assays.

*Forms:* plural: leukocytes

**levitra**

n. a prescription drug used in the treatment of erectile dysfunction; generic name: vardenafil

Levitra is a phosphodiesterase inhibitor used to treat sexual function problems such as impotence or erectile dysfunction.

*Forms:* no plural

**levorotatory**

adj. related to an optically active molecule that rotates the plane of polarized light to the left

A substance rotating light toward the left is levorotatory.

**lexapro**

n. prescription medication for depression and generalized anxiety disorder (GAD)

The antidepressant Lexapro is a member of the family of medications known as selective serotonin reuptake inhibitors (SSRIs).

*Forms:* no plural

**light-headedness**

n. dizziness

My breath rasped in my throat, and a slight light-headedness I had started to feel owing to hyperoxygenating earlier waned as my muscles took up the slack of the extra power in my blood.

*Forms:* no plural

**limit alcohol intake**

phr. to reduce the consumption of spirituous beverages

The literature regarding foetal alcohol syndrome will not be addressed in the present paper, but it is important to note that there are well documented recommendations to restrict or limit alcohol intake during pregnancy.

*Forms:* limited alcohol intake; limited alcohol intake; limiting alcohol intake

**lipitor**

n. an oral drug that reduces triglycerides; potent in reducing LDL cholesterol because higher doses can be given

Lipitor, a cholesterol lowering drug made by Pfizer and sold to millions of health conscious but ill informed patients, is one of the most profitable drugs the pharmaceutical industry has ever come up with.

*Forms:* no plural

**lithium**

n. soft silver-white univalent element of the alkali metal group

Mendeleev himself felt that its first row should have eight elements in it, as the second did, and advertised for vacancies between hydrogen and lithium.

*Forms:* no plural

**logy**

suf. study

Ecology is the study of living things and their environments.

**lump**

n. a swelling or protuberance

People often worry that every lump is cancer.

*Forms:* plural: lumps

**lumpy**

adj. chunky

A surface that is lumpy is not smooth.

*Forms:* lumpier; lumpiest; the lumpiest

**lymph node**

n. collection of white cells that act as filters to invading organisms and abnormal cells

Lymph nodes are found all over the body, for example, in the groin, armpit, mesentery, mediastinum and neck.

*Forms:* plural: lymph nodes

**lyse**

v. to disintegrate; to destroy

A cell may lyse if it is placed in a hypotonic solution.

*Forms:* lysed; lysed; lysing

**lysis**

n. disintegration; destruction

Lysosomes play a role in cell and organelle lysis. In addition to antibiotics, it should be recognised that enzymes are microbial products which could also be involved in the biocontrol action, for example, by causing the lysis of the cell walls of pathogens during the phenomenon of mycoparasitism.

*Forms:* plural: lyses

**lysosome**

n. membranous sacs that contain enzymes

Lysosomes release their contents that help break down waste products etc.

*Forms:* plural: lysosomes

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**M.D.**

abbr. professional degree of medicine

An M.D. is the basic medical qualification in North America and some European countries, and a higher medical degree in Australia and the U.K.

*Forms:* Doctor of Medicine

**M.I.**

abbr. heart attack

The patient suffered a massive myocardial infarction (MI) and died.

*Forms:* myocardial infarction

**MRI**

abbr. diagnostic technique which uses a magnetic field and radio waves to provide computerized images of internal body tissues magnetic resonance imaging

MRIs are used in medicine to help diagnose things that won't show up on an X-ray.

*Forms:* magnetic resonance imaging

**mRNA**

abbr. copies of the gene parts that code for different proteins

The mRNA molecules attach to ribosomes to allow protein synthesis to occur.

*Forms:* messenger ribose nucleic acid (RNA)

**machine**

n. a device that performs a task

A washing machine cleans your clothes.

*Forms:* plural: machines

**macro-**

pref. large

A macromolecule is a large molecule.

**macula**

n. area near the middle of the retina where vision is the sharpest

Macular degeneration is a disease affecting the macula.

*Forms:* plural: maculae

**macular**

adj. relating to a region of the retina

Macular degeneration can cause blindness.

**magnesium**

n. alkaline-earth metal with the chemical symbol Mg also needed as a trace element in the body

Magnesium is needed to help muscles function.

*Forms:* no plural

**magnesium oxide**

n. a heat-resistant; white powder with the chemical symbol MgO

Magnesium oxide is used as a medicine to calm the stomach.

*Forms:* plural: magnesium oxides

**magnet**

n. a substance that can attract iron or steel

Magnets have two poles.

*Forms:* plural: magnets

**magnetic**

adj. able to attract iron or steel

Magnets are surrounded by a magnetic field.

*Forms:* more magnetic; most magnetic; the most magnetic

**magnetic field**

n. the area around an object that attracts iron or steel where things can be affected by its force

The magnetic field is strongest at the two poles.

*Forms:* plural: magnetic fields

**magnetic pole**

n. either of the ends of an object that is able to attract iron or steel

A magnet has two magnetic poles — north and south.

*Forms:* plural: magnetic poles

**magnetize**

v. to make an object attract iron or steel

You can magnetize steel by rubbing it with a magnet.

*Forms:* magnetized; magnetized; magnetizing

**maintain an erection**

phr. to keep the penis rigid and upright

Erectile dysfunction also known as impotence is the inability to achieve or maintain an erection stiff enough during sexual relations or any other chosen sexual activity.

**major**

adj. great; big; important

Enzymes play a major role in biochemical processes.

**malabsorption**

n. group of symptoms and signs due to reduced food intake e.g., carbohydrates, fats, protein

Diseases of the small intestine may cause malabsorption.

*Forms:* plural: malabsorptions

**malaise**

n. a feeling of being generally unwell but without specific symptoms

General malaise may be a symptom of disease. Primary infection with HIV-1 may cause an acute viral syndrome with symptoms varying from mild fever, malaise, headaches, and maculopapular rash to more severe symptoms like aseptic meningoencephalitis and even oesophageal candidiasis.

*Forms:* no plural

**male**

n. a man

He is a 75-year old Caucasian male.

*Forms:* plural: males

**male**

adj. relating to the masculine gender

Male reproductive cells are called sperm cells.

**malleus**

n. largest middle ear ossicle (bone)

The malleus is also called the hammer.

*Forms:* plural: mallei

**maltose**

n. a sugar made from starch

Digestive enzymes break down starch to release maltose.

*Forms:* plural: maltoses

**mammal**

n. warm-blooded vertebrates who have young which feed on milk from their mothers' glands

The offspring of mammals are born alive.

*Forms:* plural: mammals

**manganese**

n. hard; metallic element with the chemical symbol Mn

Manganese is an important trace element for the body and used to strengthen metals such as steel and alloys.

*Forms:* no plural

**mass**

n. a measurement of the amount of matter in a physical body

Mass is different from weight as it is not affected by gravity.

*Forms:* plural: masses

**mass number**

n. the mathematical value of neutrons and protons in an atomic nucleus

Nitrogen has a mass number of 14.

*Forms:* plural: mass numbers

**masticate**

v. to chew food using the teeth

Masticating food well aids digestion.

*Forms:* masticated; masticated; masticating

**mastoid**

n. part of the skull

The mastoid area lies behind the ear.

*Forms:* plural: mastoids

**matrix**

n. compartment of a mitochondrion enclosed by the inner membrane

The matrix contains enzymes. The potential hazard of persistent local neutrophil activation relates to the ability of the neutrophil to generate toxic oxygen radicals and release myeloperoxidase and other preformed azurophilic enzymes including collagenase, elastase, and cathepsin G with the capacity to destroy the connective tissue matrix.

*Forms:* plural: matrices

**matter**

n. something that exists in space as a solid; liquid or gas and has a mass

Methane is formed when organic matter is decomposed.

*Forms:* no plural

**mature**

adj. completed stage of growth or development

A person who is fully developed in body or mind is said to be mature.

*Forms:* more mature; most mature; the most mature

**maxilla**

n. upper jaw bone

The maxilla and the mandible make up the jaw.

*Forms:* plural: maxillas

**maximum**

n. the greatest or highest possible

Try to get the maximum mark possible in the PCAT!

*Forms:* plural: maximums

**measure**

v. to record a quantity; dimension or capacity

A thermometer measures how hot something is.

*Forms:* plural: measured; measured; measuring

**medial**

adj. relating to the middle of the body or body part

The nose is more medial than the ears.

*Forms:* more medial; most medial; the most medial

**medical history**

n. information on a person's previous illnesses and their present health conditions

Hering stated that a cure should proceed: from above, downwards -- from the head or upper regions of the body down towards the feet, from within, out -- from the internal organs out to the joints or skin, from more important to less important organs -- from the liver, heart or lungs out to the joints or skin, from the present backwards in time -- going back into the patient's medical history.

*Forms:* no plural

**medication**

n. drug; pill containing chemicals; tablet

The amazing improvements in symptoms which can be brought about by medication have created an expectation that most people treated in hospitals will be recovered from their acute episode of disorder and ready for discharge within a few weeks.

*Forms:* plural: medications

**medulla oblongata**

n. part of the brainstem

The medulla oblongata helps regulate breathing.

*Forms:* plural: medulla oblongata's

**mega-**

pref. large

A megadose is a very large dose.

**meiosis**

n. cellular division that produces reproductive cells with only half the number of chromosomes

Meiosis is vital so that when the male and female gametes meet the number of chromosomes of the offspring remains the same as that of the parents.

*Forms:* no plural

**melanin**

n. black pigment that protects against the sun

Some races have a higher quantity of melanin in their skin and so are better protected against the sun.

*Forms:* no plural

**melanoma**

n. type of skin cancer

Melanoma is a malignant cancer.

*Forms:* plural: melanomas

**melting point**

n. the temperature at which a solid turns into a liquid

The melting point of a solid is the same as the freezing point of its liquid form.

*Forms:* plural: melting points

**menarche**

n. the start of the menstrual periods

Menarche usually takes place between 10 and 19 years of age.

*Forms:* no plural

**meninges**

n. the outer membranes that surround the brain

Meningitis is inflammation or infection of the meninges.

*Forms:* only plural

**menses**

n. the blood and other substances lost from the uterus at menstruation

Heavy painful menses is called menorrhagia.

*Forms:* only plural

**menstruate**

v. to bleed from the uterus when the lining is shed each month

In some cultures women are kept apart from the group when they are menstruating.

*Forms:* menstruated; menstruated; menstruating

**mental illness**

n. disorder of the mind where thought and/or behavior are abnormal and cause distress

Schizophrenia is a mental illness.

*Forms:* plural: mental illnesses

**mercury**

n. a silver metallic element with the chemical symbol Hg

Mercury is used to make thermometers.

*Forms:* no plural

**meso -**

pref. middle

The mesoderm is the middle, embryonic germ layer.

**mesophyll**

n. tissue layer in a leaf

Mesophyll is where photosynthesis occurs.

*Forms:* plural: mesophylls

**messenger RNA**

n. copies of the gene parts that code for different proteins

The messenger RNA molecules attach to ribosomes to allow protein synthesis to occur.

*Forms:* plural: messenger RNAs

**metabolism**

n. all of the energetic reactions that take place in a cell or organism

Cellular metabolism produces energy and raw materials for the cell to renew itself.

*Forms:* no plural

**metal**

n. an element that loses electrons in a chemical reaction

An example of an alkali metal is sodium.

*Forms:* plural: metals

**metallic bond**

n. link holding the atoms together

Metallic bonds differ from most other bonds as they do not just occur between adjacent or nearby atoms.

*Forms:* plural: metallic bonds

**metamorphic**

adj. relating to change of form

Tadpoles undergo metamorphic transformation to become frogs.

**metamorphosis**

n. change in the form of an organism that occurs during development

Larvae undergo metamorphosis to become butterflies.

*Forms:* plural: metamorphoses

**metaphase**

n. stage of cell division where the spindle parts and chromosomes line up in the center

Prophase comes before metaphase in the cell cycle.

*Forms:* plural: metaphases

**metatarsal**

n. small bones of the feet

The metatarsals lie between the tarsals and the phalanges.

*Forms:* plural: metatarsals

**meter**

suf. measuring device

A spectrometer measures the wavelengths of radiation.

**meter**

n. unit of length

One meter is one hundred centimeters.

*Forms:* plural: meters

**methane**

n. colorless gas that is formed when organic matter decomposes

Methane is a hydrocarbon.

*Forms:* no plural

**methanol**

n. colorless; toxic alcohol

Drinking methanol can lead to blindness and death.

*Forms:* plural: methanols

**methionine**

n. an essential amino acid

Methionine must be obtained from the diet.

*Forms:* no plural

**metric**

adj. relating to a measurement system

There are two main systems of measurement — the metric and the imperial.

*Forms:* more metric; most metric; the most metric

**mibefradil**

n. brand name for a drug that belongs to a group of medicines calcium channel blockers

Mibefradil is a T-type and L-type calcium channel blocker (CCB) released in the United States in 1997 for management of hypertension and chronic stable angina.

*Forms:* no plural

**micro-**

pref. small

An example of a microorganism is a bacterium.

**microbiologist**

n. person who works in a particular field of science

A microbiologist may work in a laboratory.

*Forms:* plural: microbiologists

**microbiology**

n. a field of science

A microbiologist is an expert in microbiology.

*Forms:* no plural

**microbody**

n. membranous vesicle that contains enzymes

A peroxisome is an example of a microbody.

*Forms:* plural: microbodies

**microfilament**

n. rod-like structure made of actin

Microfilaments provide cell support and help with movement and division.

*Forms:* plural: microfilaments

**microfilaments**

n. fibers located throughout the cytoplasm of a cell

Microfilaments are involved in muscle contraction in which they are moved by actin and myosin.

*Forms:* only plural

**microphage**

n. small phagocyte white blood cell

Microphages are developed from monocytes.

*Forms:* plural: microphages

**microscope**

n. an instrument used to magnify small objects so that they can be seen much better than with your eye

You can visualize parts of a cell with a microscope.

*Forms:* plural: microscopes

**microtubule**

n. organ that helps cells hold their shape and assists in cell division

Microtubules are found in the cytoplasm in most cells.

*Forms:* plural: microtubules

**microvillus**

n. a finger-like projection from a membrane surface

Microvilli increase the surface area of the membrane for processes such as absorption.

*Forms:* plural: microvilli

**micturition**

n. passage of urine from the bladder outside of the body

Problems with micturition occur in men with large prostates.

*Forms:* no plural

**migraine**

n. type of headache

Migraines may be accompanied by nausea or visual changes.

*Forms:* plural: migraines

**milli-**

pref. one thousandth part

A millimeter is a thousandth part of a meter.

**mineral**

n. simple chemical that living things need in small amounts to stay healthy

The slag usually contains a lot of different minerals as well as heavy metals.

*Forms:* plural: minerals

**minimize**

v. to reduce as much as possible

The amount of caffeine should be reduced gradually, over a period of two to three weeks, to minimize withdrawal reactions.

*Forms:* minimized; minimize; minimizing

**minimum**

n. the smallest or lowest possible

Antibiotics should be given for the minimum time possible.

*Forms:* plural: minimums

**minor**

adj. small; of little importance

He escaped the fire virtually unharmed; except for some minor burns.

*Forms:* more minor; most minor; the most minor

**miosis**

n. contraction of the pupil in the eye

Light causes miosis of the pupil.

*Forms:* no plural

**missed dosage**

n. condition that is caused when a virus becomes resistant to the drug regimen

If there is an accidental missed dosage of Prozac during your treatment period then take the missed dosage as soon as you can during the same day.

*Forms:* plural: missed dosages

**mitochondrial**

adj. relating to the energy power house of a cell

The mitochondrial membrane has an inner and an outer part forming an envelope.

**mitochondrion**

n. cytoplasmic structure where ATP (energy) is made

The mitochondrion is the 'powerhouse' of the cell.

*Forms:* plural: mitochondria

**mitosis**

n. cellular division producing somatic cells with a full quota of chromosomes after each division

Identical daughter cells are formed after a cell divides by mitosis.

*Forms:* no plural

**modify**

v. to change; to alter

The conditions of the experiment were modified and the results noted.

*Forms:* modified; modified; modifying

**moisture**

n. humidity; condition that should be avoided when storing drugs or medications

As the CO<sub>2</sub> was released it reacted with moisture in the soil to form carbonic acid, and the acid attacked the soil to release the supply of nutrients.

*Forms:* no plural

**molecular**

adj. composed of tiny particles

The molecular formula of salt is NaCl.

*Forms:* more molecular; most molecular; the most molecular

**molecular formula**

n. code that shows the number and type of atoms

The molecular formula of magnesium sulfate is MgS.

*Forms:* plural: molecular formulae; molecular formulas

**molecule**

n. two or more atoms of the same or different elements that unite because of Van der Waal's forces

The hydrogen molecule is very small compared to a molecule of DNA.

*Forms:* plural: molecules

**monitor**

n. an instrument that records and/or shows digital information

Heart monitors are used to watch the heart beat.

*Forms:* plural: monitors

**monitor**

v. to watch or record information

The baby's heart rate was monitored because it was in distress.

*Forms:* monitored; monitored; monitoring

**mono-**

pref. one

Monochromatic means something which has only one color.

**monosaccharide**

n. simple sugar containing 3-7 carbon atoms

Glucose is a monosaccharide.

*Forms:* plural: monosaccharides

**monoxide**

n. compound containing 2 elements one of which is a single oxygen

Carbon monoxide is a poisonous gas.

*Forms:* plural: monoxides

**morph-**

pref. form

Morphology is the study of form and shape.

**morphine**

n. a strong pain-killing and soporific drug made from opium

Methadone does not follow the same metabolic pathways as morphine, so it has been suggested that it may be useful in morphine resistant nociceptive (paradoxical) pain.

*Forms:* no plural

**motor neuron**

n. nerve cell that conducts messages from the brain and the spinal cord to the muscles

Motor neurons are also called efferent neurons as they carry messages to effector cells.

*Forms:* plural: motor neurons

**multi-**

pref. many

Multicellular organisms have many cells.

**multicellular**

adj. consisting of many compounds

Methylation is now generally recognised as one way of switching genes off, and is particularly interesting one because it helps to explain a crucial but mystifying fact of multicellular life -- the differentiation of the genetically identical cells of an embryo into the many different tissues of the mature organism.

*Forms:* no plural

**multiply**

v. to increase in quantity

Microorganisms multiply rapidly under certain conditions.

*Forms:* multiplied; multiplied; multiplying

**myelin sheath**

n. this is a layer of Schwann cells which covers the nerve axon

The myelin sheath is an electrical insulator.

*Forms:* no plural

**myeloma**

n. a disease of the bone marrow

Clodronate delays osteolytic bone lesions, reduces the degree of hypercalcaemia and decreases pain in patients with multiple myeloma, claim the authors of a 24-month multicentre study.

**myopia**

n. shortsightedness

Someone who has myopia can clearly see close objects but not distant objects.

*Forms:* no plural

**myopic**

n. someone who suffers from shortsightedness

Myopics may need glasses to correct their sight.

*Forms:* plural: myopics

**NAD**

abbr. compound which acts as an electron and hydrogen acceptor and donor in biological oxidation and reductions in cells

Northern analysis of RNAs derived from lymphoid lineages showed that the 2.6kb atk messenger RNA was expressed in the B-cell line NAD, and also in B cells of two patients with chronic lymphocytic leukaemia (B-CLL1, B-CLL2), but not in T cells (T-CLL) or a T-cell line.

*Forms:* nicotinamide adenine dinucleotide

**nasal**

adj. relating to the nose

Air passes down the nasal passages towards the lungs.

**natural selection**

n. theory which says that the characteristics that aid survival occur as random mutations and are then inherited as only the fittest survive

The theory of natural selection was put forward by Darwin and Wallace.

*Forms:* no plural

**nausea**

n. a sick feeling; wanting to vomit

Vomiting may follow nausea. Symptoms of mild poisoning may include nausea, vomiting and diarrhoea: skin irritation, rashes or swelling; headache; sudden elation or depression; abdominal pains; trembling or giddiness.

*Forms:* no plural

**nauseous**

adj. sick (as if you will vomit)

Motion (travel) sickness makes you feel nauseous. The soup was a nauseous fluid resembling dirty dishwater, and it upset my stomach; and the ersatz coffee, made from ground acorns, was very evil-tasting.

*Forms:* more nauseous; most nauseous; the most nauseous

**necrosis**

n. set of irreversible changes in a cell that causes it to die

Tissue necrosis can occur if the blood supply to that tissue is cut off.

*Forms:* no plural

**necrotic**

adj. dead

If the blood supply to a limb is cut off the tissue becomes necrotic and gangrene can set in.

**neighboring**

adv. next to

Most chemical bonds are formed between neighboring atoms.

**neurilemma**

n. a cellular sheath composed of Schwann cells which envelops the axons of peripheral neurons

The neurilemma is important in the regeneration of nerve tissue following injury.

*Forms:* plural: neurilemmas

**neuro-**

pref. nerve

Neurogenic pain is pain from nerves.

**neurontin**

n. anticonvulsant used to treat seizures associated with epilepsy

Neurontin is a prescription drug approved to treat both epilepsy and shingles nerve pain.

*Forms:* no plural

**neutron**

n. uncharged particle found in the nucleus of the atom

Protons and neutrons have similar masses.

*Forms:* plural: neutrons

**nicotine**

n. a chemical in tobacco

Nicotine is addictive. There is moderate reduction in lung cancer risk associated with lower tar cigarettes but research in the UK suggests that the assumed health advantages of switching to lower tar may be largely offset by the tendency of smokers to compensate for the reduction in nicotine (cigarettes lower in tar also tend to be lower in nicotine) by smoking more or inhaling more deeply

*Forms:* no plural

**nitrate medication**

n. drug that contains salt or ester of nitric acid

Be aware that if you take any nitrate drug such as nitrate medication for heart disease, nitroglycerine for angina, or the party drug, amyl nitrate ("poppers"), you should not use erection drugs such as Viagra, Levitra or Cialis.

*Forms:* plural: nitrate medications

**nitric oxide**

n. a red-brown gas which is poisonous

US scientists have just discovered that the gas, nitric oxide, is produced in the main nerve of the penis, where it triggers the blood flow which causes an erection.

*Forms:* plural: nitric oxides

**nitrogen**

n. chemical element with the symbol N that is found in proteins and nucleic acids

Nitrogen is a gas at room temperature. Air pollution in Britain's major cities reached the highest levels since records began in 1976 during a spell of cold and still weather in mid-December which prevented the usual dispersal of pollutants such as nitrogen dioxide from traffic fumes and sulphur dioxide from power stations.

*Forms:* no plural

**nitroglycerin**

n. substance that is medically as a vasodilator; brand names: Nitrospan, Nitrostat

Many would hesitate to use vasopressin in view of the high incidence of ischaemic heart disease in this age group, but it may be combined with nitroglycerin when the harmful vasoconstrictor side effects are less common.

*Forms:* also: nitroglycerine; no plural

**nitrous oxide**

n. gas with anesthetic properties

Nitrous oxide is also known as "laughing gas".

*Forms:* plural: nitrous oxides

**nonprescription medication**

n. drug that can be obtained without a written order from a pharmacist or doctor; written instructions for a drug

A nonprescription medication-sometimes called an over-the-counter, or OTC, medication-is any drug that you can buy without a doctor's prescription.

*Forms:* plural: nonprescription medications

**not applicable**

phr. describes information that can be ignored

The spreading technique is not applicable to cells once they reach the metaphase stage.

**note**

n. hint; warning (especially in drug or medication descriptions)

Among the many experiments carried out at Warwick, there is one of particular note: the discovery that skin can respond to odours -- even those we cannot smell.

*Forms:* plural: notes

**notice**

v. to observe

With this exercise plan you will notice an enormous improvement in your stamina, suppleness and strength after just seven days.

*Forms:* noticed; noticed; noticing

**notify**

v. to warn; to inform

A married woman was required to notify her husband prior to obtaining an abortion, unless the husband was not the father of the child, could not be located, had created the pregnancy through a sexual assault upon his wife, or might cause physical harm to the woman concerned.

*Forms:* notified; notified; notifying

**nuclear envelope**

n. 2 membranes that surrounds the nucleus

The nuclear envelope separates the nuclear contents from the rest of the cell.

*Forms:* plural: nuclear envelopes

**nuclear pore**

n. area which allows passage of substances into cytoplasm and back

The nuclear pores are formed where the nuclear envelope fuses together.

*Forms:* plural: nuclear pores

**nucleoplasm**

n. gelatinous or liquid material that constitutes the kernel of a cell

Organelles are suspended within the nucleoplasm.

*Forms:* plural: nucleoplasms

**nucleoside**

n. compound containing a nitrogenous base (purine or pyrimidine) and a sugar

Removal of the phosphate group from a nucleotide creates a nucleoside.

*Forms:* plural: nucleosides

**nucleus**

n. part of cell that contains RNA and DNA

The nucleus controls what happens in the cell. Laser light cannot interact directly with the atomic nucleus, but experiments with lasers are revealing details of nuclear size and shape and could help to solve key problems in nuclear physics.

*Forms:* no plural

**obstetrician**

n. doctor who is a specialist in conception, pregnancy and childbirth

For the mother who finds breast feeding terribly difficult and there are so many of these -- the solemn pronouncements she will hear from her own parents and from health visitors, obstetricians and other professional people can lead to real emotional and mental suffering.

*Forms:* plural: obstetricians

**obstetrics**

n. the branch of medicine concerning conception, pregnancy and childbirth

Until the specialty and, more importantly, the college recognise the value of an academic career and are willing to regard academics as equals, academic obstetrics and gynaecology will be an unpopular choice and will remain in the scientific shadow of medicine and surgery.

*Forms:* no plural

**occur**

v. to happen; to take place

Labour would not tolerate the regional imbalances that disfigured the economy, and the waste of resources which had occurred under the Tories.

*Forms:* occurred; occurred; occurring

**ocular**

adj. of the eyes

Spectacles are ocular aids.

**oligo-**

pref. few

An oligosaccharide contains few carbohydrate chains.

**oma**

suf. tumor

A melanoma is a tumor of the melanin-producing cells.

**oncologist**

n. a medical doctor who diagnoses and treats cancer

Oncologists are cancer specialists.

*Forms:* plural: oncologist

**oncology**

n. branch of medicine that concerns cancer

In general, oncology is the term denoting the "medical" science of cancer.

*Forms:* no plural

**optimal**

adj. the best

Enzymes work best under optimal conditions.

**organ failure**

n. the state in which a compound of the body is unable to function adequately

Severe; systemic illness can cause multiple organ failure.

*Forms:* organ failures

**osmosis**

n. process where solvent molecules, e.g. water, pass through a selectively permeable membrane from a region of high concentration to a region of low concentration

Osmosis is a special form of diffusion. Reverse osmosis units for freshwater fish are all very well, but many fish keepers who use them are forced to mix the water obtained with raw tap water before adding it to the tank, simply because they cannot afford the expense of a separate carbon filter.

*Forms:* no plural

**osmotic pressure**

n. is dependent on the amount of dissolved substances in a solution

A cell needs to control its own osmotic pressure or it may swell or burst. The relationship between osmotic pressure and temperature is analogous to the ideal gas equation.

*Forms:* plural: osmotic pressures

**osteo-**

pref. of bone

Osteoblasts make new bone.

**osteoblast**

n. cell that make new bone by producing collagen

An osteoblast is a mononucleate cell that is responsible for bone formation.

*Forms:* plural: osteoblasts

**osteoclast**

n. a bone cell that helps destroy bone

An osteoclast (from the Greek words for "bone" and "broken") is a type of bone cell that removes bone tissue by removing the bone's mineralized matrix.

*Forms:* plural: osteoclasts

**osteocyte**

n. cell that has become part of the bone matrix

Recent research advocates that the minute spaces within the substance of the core, which have long been known to exist, are true bone cell or osteocyte cell spaces.

*Forms:* plural: osteocytes

**outside**

adv. external to

The scrotal sacs lie outside of the body.

**ovarian**

adj. relating to the female reproductive organs

Tumours (except thyroid and prostate) were grouped according to their anatomical relation and treatability: breast; lung; gut (including colon, oesophagus, stomach, and small intestine); female genital tract (including ovarian, fallopian tube, and endometrium) and others (including pancreatic, renal, bladder, and salivary gland).

**overdose**

v. to take an exaggerated amount of medicine or drugs

He overdosed on painkillers and so is now heavily sedated.

*Forms:* overdosed; overdosed; overdosing

**overdose**

n. an excessive amount of a drug; too large portion of a medication or drug

Many people take an overdose if they want to commit suicide.

*Forms:* plural: overdoses

**overweight**

adj. related to adiposis

Doctors often advise overweight people to diet.

*Forms:* more overweight; most overweight; the most overweight

**ovulation**

n. the time of the month when eggs are released from the follicle

Ovulation usually occurs around day 14 of the menstrual cycle.

**oxidative**

adj. having the ability to make a substance lose electrons

Ozone is an oxidative gas.

**oxide**

n. compound of a nonmetallic diatomic element

Nitrous oxide is a gas at room temperature.

*Forms:* plural: oxides

**pain**

n. an unpleasant sensation; suffering of the body or mind

He has suffered a lot of pain in his life.

*Forms:* plural: pains

**painful**

adj. aching

Pressing her fingers to the knot of tension at the back of her neck, she massaged gently, then stretched her limbs to relieve some of her aching muscles.

*Forms:* more painful; most painful; less painful; least painful

**painful**

adv. causing distress or suffering

Sickle cell disease can be very painful.

**palate**

n. the roof of the mouth

The palate comprises a hard; bony part and a soft fleshy part.

**palliate**

v. to ease suffering; to reduce the severity of an illness without curing it

If there is no cure for a disease then all efforts should be made to palliate.

*Forms:* palliated; palliated; palliating

**palm**

n. the inside surface of the hand; tropical tree

He has a deep cut on the palm of his hand.

*Forms:* plural: palms

**palmar**

adj. relating to the inner surface of the hand

The palmar creases are skin folds of the palm.

**palpate**

v. to beat

His heart was palpating loudly in his chest.

*Forms:* palpated; palpated; palpating

**pancreatic**

adj. relating to a glandular organ located in the abdomen

His pancreatic disease was very serious.

**pancreatitis**

n. inflammation or infection of the a glandular organ located in the abdomen

Alcohol excess is a cause of pancreatitis.

*Forms:* no plural

**panic**

n. an extreme state of fear

He was in a panic because he had not done enough work for the MCAT.

*Forms:* plural: panics

**panic**

v. to react with extreme fear or anxiety to a situation

He was panicking when he arrived at the hospital.

*Forms:* panicked; panicked; panicking

**paralysis**

n. inability to move or act

The accident left him with a paralysis of the lower body.

**paralyze**

v. to stop something being able to move

At the age of 40 he was paralyzed from the waist down.

*Forms:* paralyzed; paralyzed; paralyzing

**paraplegia**

n. inability to move the legs and part of the trunk

A study of persons who suffered accidents resulting in paraplegia and tetraplegia showed that 75 per cent of the professional group found similar employment two to three years after the onset of disability and the remaining 25 per cent were unemployed.

*Forms:* no plural

**paraplegic**

n. someone who is unable to move their legs

He used a wheelchair because he was a paraplegic.

*Forms:* plural: paraplegics

**parasite**

n. an organism that lives in or on a host organism

Parasites usually cause damage to the host organism.

*Forms:* plural: parasites

**patella**

n. knee cap

The patella is very mobile.

*Forms:* plural: patellae

**patellar**

adj. of the small round bone of the kneecap

Patellar dislocation is very painful.

**pathogen**

n. something that can cause a disease in an organism

The body has an immune system designed to combat pathogens.

*Forms:* plural: pathogens

**pathological**

adj. causes disease or an abnormal state

Cancer is a pathological state.

*Forms:* more pathological; most pathological; the most pathological

**pathologist**

n. a medical doctor who deals with the cause; origin and nature of diseases

Pathologists may work in a laboratory.

*Forms:* plural: pathologists

**pathology**

n. disease and its effects on the body; an abnormal state

Laboratory tests are important for finding pathology in the body.

*Forms:* plural: pathologies

**paxil**

n. antidepressant; selective-serotonin reuptake inhibitor;  
generic name: paroxetine

Paxil is a dangerous, addictive drug with powerful side-effects.

*Forms:* no plural

**pediatric**

adj. referring to children

A pediatric nurse works with children.

**pellagra**

n. illness due to nicotinic acid deficiency

Pellagra causes skin changes; diarrhea and nervous problems.

*Forms:* no plural

**pelvic**

adj. relating to the the lower part of the abdomen

The pelvic bones protect the contents of the pelvis from damage.

**pelvis**

n. the basin-shaped cavity of the lower trunk; made up by the hip bones and sacrum

The pelvis contains the urogenital organs.

*Forms:* plural: pelvises

**penicillin**

n. group of antibiotics; originally made from mould

Penicillin was the first antibiotic discovered and is used to treat a wide range of infections.

*Forms:* plural: penicillins

**penile**

adj. relating to the male sexual organ

The penile circulation is important for allowing erection to occur.

**penis**

n. male reproductive organ; containing the urethra

The penis deposits sperm at the top of the vagina during sexual reproduction.

*Forms:* plural: penises

**peptic**

adj. relating to the stomach

Peptic ulcers are exacerbated by stress.

**perform**

v. to carry out

Surgeons perform operations.

*Forms:* performed; performed; performing

**peri-**

pref. around

The cell perimeter is the area around the cell.

**peripheral**

adj. relating to the outside; the edge

His peripheral vision was poor which meant he couldn't see objects to the side of him.

**peritoneum**

n. membrane lining the inside of the abdominal cavity

The peritoneum holds the abdominal organs.

*Forms:* plural: peritoneums

**permitted**

adj. allowed

This does not mean that nuclear use is permitted under the laws of war, for the fundamental principles regarding such matters as protection of non-combatants remain.

**peroxisome**

n. a microbody full of enzymes where important break-down processes occur

Peroxisomes have an important role in detoxification within the liver and the kidney.

*Forms:* plural: peroxisomes

**persist**

v. to continue

In spite of various difficulties over these early broadcasts and the general absence of supplementary printed material for class use, together with some antipathy towards this innovatory form of teaching, the Cambridge branch persisted with radio programmes into 1929.

*Forms:* persisted; persisted; persisting

**personality**

n. the essential character of an individual

It can sometimes be difficult to determine whether the patient is ill-tempered and perhaps foulmouthed towards you because of the immediate effects of his illness and the frustration he feels, especially if he cannot speak normally, or whether it is part of a personality change which is going to last indefinitely.

*Forms:* plural: personalities

**peyronie's disease**

n. condition characterized by a bent penis

Peyronie's disease is characterized by the formation of hardened tissue (fibrosis) in the penis that causes pain, curvature, and distortion, usually during erection.

*Forms:* no plural

**pharmacist**

n. person who sells drugs and medications

The traditional careers of doctor, dentist, lawyer, solicitor, accountant, actuary, vet, structural engineer and pharmacist are united by the certainty that their salaries will continue to rise steadily until they reach the top of their professions.

*Forms:* plural: pharmacists

**pharyngeal**

adj. relating to the upper part of the throat

Any pharyngeal disease may affect swallowing.

**pharyngitis**

n. infection or inflammation of the back of the throat

Pharyngitis may be caused by a virus.

*Forms:* no plural

**phobia**

n. an extreme fear localized to particular objects or situations

Arachnophobia is a fear of spiders.

*Forms:* plural: phobias

**phosphorylate**

v. to add a salt or ester to a molecule

Glycogen is phosphorylated to glucose phosphate and a phosphate group. Protein kinase C is the name given to a group of kinases, which when activated by diacylglycerol in the presence of phospholipids such as phosphatidylserine, phosphorylate proteins on serine or threonine.

*Forms:* phosphorylated; phosphorylated; phosphorylating

**photo-**

pref. light

A photon is the smallest unit of light.

**pineal gland**

n. epiphysis

The pineal gland lies in the midbrain.

*Forms:* plural: pineal glands

**pinocytosis**

n. process where liquid is taken into the cell within vesicles

During pinocytosis small vesicles form out of the plasma membrane and carry liquid into the cell from outside.

**pins and needles**

n. prickling sensation in part of the body

Pins and needles may occur after numbness as sensation returns to that body part.

*Forms:* plural only

**plantar**

adj. relating to the bottom of the foot

He has a plantar wart.

**plasmodesma**

n. a channel in plant cells that connects the cytoplasm of two nearby cells

The plasmodesmata allow small substances to pass between cells. Although plants lack any structures comparable to animal nerves, cells in a plant tissue are linked by plasmodesmata that have solute permeabilities and electrical conductivities nearly identical to those of gap junctions in animal tissues.

*Forms:* plural: plasmodesmata

**plasmolysis**

n. the process where a cell's contents shrink away from the cell wall when placed in a hypertonic solution

Plasmolysis occurs if red blood cells are placed in a strong salt solution. It is very easy to cause scorch (plasmolysis) if used too strongly --; never exceed 1 ounce (28g) per square yard (square metre).

**plastid**

n. energy-transducing organelle in plant cells

Plastids produce and store plant material.

*Forms:* plastids

**pleural**

adj. relating to thin serous membrane that covers the lung

The pleural cavity is the potential space between the pleural membranes.

**pleurisy**

n. inflammation of a thin serous membrane that covers the lung

Pleurisy can cause pain on deep breathing or with coughing.

*Forms:* no plural

**poison**

v. to cause damage to an organism as a result of exposure to a toxic substance

Pollutants in the environment have the capacity to poison us.

*Forms:* poisoned; poisoned; poisoning

**poison**

n. anything causing damage to the body

Arsenic is a poison.

*Forms:* plural: poisons

**poison control center**

n. emergency phone service for life-saving treatment advice on any kind of intoxication

It is the mission of our Local Poison Control Center to reduce the number and severity of poisonings that occur annually.

*Forms:* plural: poison control centers

**poisoning**

n. the act of being damaged by a toxic compound

There are many cases of drug poisoning each year.

*Forms:* plural: poisonings

**poisonous**

adj. toxic

Mercury is a poisonous substance.

*Forms:* more poisonous; most poisonous; the most poisonous

**poly-**

pref. many

A polymer has many different monomers joined together.

**portal system**

n. series of veins

The hepatic portal system is the series of veins in the liver.

*Forms:* plural: portal systems

**portal vein**

n. a blood vessel connecting two networks of capillaries

The hepatic portal vein is a major vein in the liver.

*Forms:* plural: portal veins

**position**

n. stance

These results lend strong support to a catalytic mechanism in which an enzyme sulfhydryl group undergoes Michael addition to the C-5-C-6 double bond, thus activating position C-5 of the substrate DNA cytosine residue for electrophilic attack by the methyl donor SAM.

*Forms:* plural: positions

**postural**

adj. relating to the position of the body or limbs

Postural support can help prevent spinal problems.

**potential energy**

n. stored power which has the capacity to do work

Energy can be described as potential or kinetic. Potential energy is one convenient way of parking energy until it is wanted and this energy can be followed through its various subsequent transformations by a sort of accounting procedure which can be very revealing.

*Forms:* plural: potential energies

**precautions**

n. measures to prevent unwanted effects; safety measures

We will not go into great detail on the dangers of using statistics here but merely point to some precautions which must still be taken even when using statistics which are generally regarded as reliable.

*Forms:* only plural

**prednisone**

n. dehydrogenated analogue of cortisol (trade names Orasone or Deltasone or Meticorten); used as an anti-inflammatory drug in the treatment of arthritis and as an immunosuppressant

Prednisone is a very strong medication, and must be administered under a physician's prescription and close surveillance.

*Forms:* no plural

**pregnancy**

n. the period between conception and childbirth

During pregnancy a woman undergoes great hormonal changes.

*Forms:* plural: pregnancies

**premature**

adj. happening before the normal time

Premature babies are those born too early.

*Forms:* more premature; most premature; the most premature

**prescribe**

v. to issue an order for a drug or medication

On the other hand, psychotropic drugs such as minor tranquilizers and antidepressants are now being prescribed on a large scale by general practitioners and this probably contributed to some extent to the increase in overdoses of these substances.

*Forms:* prescribed; prescribed; prescribing

**prescription medication**

n. drug that can only be obtained with a written order from a pharmacist or doctor; written instructions for a drug

Prescription medication abuse by teens and young adults is a growing problem in the United States.

*Forms:* plural: prescription medications

**pressure**

n. the exertion of force by one body against another

Pressure may be measured in Pascal's, atmospheres, millibars or torrs.

*Forms:* plural: pressures

**priapism**

n. condition in which the penis is continually erect

The project team is also working on ways to turn off the gas supply in men who produce too much of it and, as a result, suffer from priapism -- painful and embarrassing erections in the absence of sexual desire.

*Forms:* no plural

**primary lysosome**

n. a cytoplasmic cell organelle that buds off from the golgi complex

A primary lysosome becomes a secondary lysosome when it fuses with vesicles that contain matter to be ingested.

*Forms:* plural: primary lysosomes

**procedure**

n. a method to follow; a course of action

Scientists describe their procedure in the method part of a scientific paper.

*Forms:* plural: procedures

**procerin**

n. a nutritional supplement for men with thinning hair and hair loss

Procerin is a natural hair vitamin that is specially formulated to block production of DHT, the primary cause of hair loss in men.

*Forms:* no plural

**progestogen**

n. any steroid hormone with an action similar to female sex hormone

Artificial progestogens are used in the contraceptive pill.

*Forms:* plural: progestogens

**prognosis**

n. a forecast of whether a disease will progress in severity or not

The prognosis is often poor with metastatic cancer.

*Forms:* plural: prognoses

**prolactin**

n. pituitary hormone involved in lactation

Prolactin increases the secretion of progesterone by the ovary.

*Forms:* no plural

**prolonged**

adj. extended (related to a period of time)

She prolonged her vacation when she found out she had failed the PCAT!

*Forms:* more prolonged; most prolonged; the most prolonged

**promptly**

adv. immediately

I saw a whole host of caterpillar tracks near the entrance of the Channel Tunnel, started to follow one on my hands and knees and got promptly knocked down by a bulldozer.

*Forms:* more promptly; most promptly; less promptly; least promptly

**propanone**

n. solvent which is a ketone

Propanone is the simplest form of ketone.

*Forms:* no plural

**propecia**

n. brand name of a product that reduces hair loss in men; it contains finasteride, an antiandrogen used in hormone therapy

If you are going bald you should consider using Propecia to halt or even reverse your hair loss.

*Forms:* no plural

**prophase**

n. stage of the cell cycle where chromosomes line up to make pairs

In the human female, meiosis commences towards the end of the first trimester of fetal development and, with increasing gestational age, more and more cells enter the prophase stages of leptotene, zygotene and pachytene.

*Forms:* plural: prophases

**prostaglandin**

n. potent hormone-like substance found in many bodily tissues (and especially in semen)

Prostaglandins (PGs) are local hormones and PGs such as prostaglandin E2 (PGE2) and prostacyclin (PGI2) inhibit acid secretion and stimulate the secretion of mucus, and of bicarbonate.

*Forms:* plural: prostaglandins

**prostatic**

adj. relating to the gland surrounding the male urethra

Unless general practitioners can be persuaded that a digital rectal examination is not a physical assault and that measurement of serum prostate specific antigen concentration is a sensitive screening test for prostatic cancer, no progress will be made in detecting prostatic cancer.

**protozoan**

n. one celled organism that have a nucleus and are either parasites or live in water

Many protozoa use cilia or flagellae to move.

*Forms:* plural: protozoa

**pseudo-**

pref. false

A pseudopodium is a false 'foot-like' extension that some unicellular organisms have.

**psychiatrist**

n. a specialist who studies; diagnoses and treats mental illness

A psychiatrist manages emotional and mental illnesses.

*Forms:* plural: psychiatrists

**psychiatry**

n. medical specialty dealing with the study, diagnosis and treatment of mental illness

Many doctors in the field of psychiatry and psychology are using hypnosis to cure their patients.

*Forms:* no plural

**psychologist**

n. someone who studies mental processes and behavior

A psychologist is trained to do research; clinical tests and therapy.

*Forms:* plural: psychologists

**pulse**

n. the expansion and contraction of the blood as it is pumped around the circulation

You can feel the pulse at the wrist; neck; top of the thighs and scalp in babies.

*Forms:* plural: pulses

**pus**

n. a thick yellow-green liquid containing dead cells and white cells that forms in infected areas

The infected wound was full of pus. We know from animal experiments that if there were no lymphocytes there would be no inflammation and no pus, despite normal numbers of pus cells in the body.

*Forms:* no plural

**pylorus**

n. region between the stomach and the duodenum

The pylorus is an opening between the stomach and the duodenum.

*Forms:* plural: pylori

**pyridoxine**

n. vitamin B6

Pyridoxine is important for energy processes. Vitamin B6 (pyridoxine) is essential for protein metabolism and the production of brain chemicals that affect mood and mental function.

*Forms:* plural: pyridoxines

**quadriceps**

n. large muscle of the thigh

The quadriceps extends the leg.

*Forms:* no plural

**quadriplegia**

n. paralysis of the body from the neck down

Quadriplegia may result from spinal trauma.

*Forms:* no plural

**quantity**

n. amount

The unwanted effects, which are an indication of the mismatch between the powers of the drug and those of the patient either in quality (the type of medicine used) or in quantity (the dose administered), are fewer.

*Forms:* plural: quantities

**quinine**

n. drug used to treat malaria

Quinine comes from the cinchona tree.

*Forms:* plural: quinines

**race**

n. humans considered as a group, breed or strain

The human race may eventually die out.

*Forms:* plural: races

**racemic**

adj. relating to a molecule containing equal quantities of dextrorotatory and levorotatory forms and therefore not rotating the plane of incident polarized light

A racemic mixture refers to a mixture of equal concentrations of both enantiomers.

**radical**

n. unstable particles with unpaired electrons

Radicals are highly reactive.

*Forms:* plural: radicals

**radiograph**

n. an X-ray

A chest radiograph may be taken if there is a problem with the lungs.

*Forms:* plural: radiographs

**radiographer**

n. someone who takes X-rays

A radiographer must be very careful to avoid being exposed to radiation.

*Forms:* plural: radiographers

**radiologist**

n. doctor who is a specialist in the branch of medicine that uses x-rays to diagnose and treat diseases

Radiologists have to take precautions to protect themselves from exposure to radiation.

*Forms:* plural: radiologists

**radiology**

n. branch of medicine that uses X-rays to diagnose and treat disease

Radiology allows doctors to see inside the body.

*Forms:* plural: radiologies

**radiotherapy**

n. treatment of diseased areas by exposing them to gamma rays or X-rays

Radiotherapy is a treatment for some cancers. Radiotherapy often relieves pain that is untreatable with laser, and may give better long term control so that repeat laser procedures are required less often.

*Forms:* plural: radiotherapies

**radius**

n. line drawn from the center of a circle or tube to the outside

The radius of a circle is half the diameter.

*Forms:* plural: radii

**rapid eye movement**

n. phase of the sleep cycle

REM sleep is when dreaming takes place.

*Forms:* no plural

**rare**

adv. uncommon; not usual

She has a rare disease and the doctors don't know anything about it.

**rarely**

adv. seldom

Most of mining has taken place on greenfield sites, and the quality of restoration and aftercare rarely compensates for the loss of visual appeal or wildlife habitat of the land sacrificed for so-called cheap energy.

*Forms:* rarely; more rarely; least rarely

**rash**

n. an eruption on the skin

Rashes may be a sign of an allergy or an infectious disease.

*Forms:* plural: rashes

**reaction**

n. a rearrangement in the structures of atoms or molecules to form new products

An example of a chemical reaction is the reduction of iron oxide to iron by carbon monoxide.

*Forms:* plural: reactions

**receptor**

n. sensory cell

A receptor detects sensory stimuli (information).

*Forms:* plural: receptors

**recessive**

adj. relating to a gene form that is only expressed when two alleles are present; relating to one from each parent

The gene for cystic fibrosis is a recessive gene. When cells are exposed to ionizing radiation, the chromosomes of the cell nuclei may be damaged by the production of gene mutations (dominant and recessive), involving alterations in the elementary units of heredity which are localized within the chromosomes, or by the induction of chromosome aberrations, consisting of changes in the structure or number of the chromosomes.

**recombinant DNA**

n. new genetic material that has been created by mixing genes from different organisms

The basis of genetic engineering is recombinant DNA technology which is also variously known as gene cloning and in vitro genetic manipulation.

*Forms:* recombinant DNAs

**rectal**

adj. relating to the last section of the large intestine which ends at the anus

Hemorrhoids can cause rectal bleeding.

**rectum**

n. the last part of the large intestine from the sigmoid colon to the anal canal

Feces are stored in the rectum. At home many people have a personal medication routine such as taking medications orally; inhaling them from a nasal spray; applying them to the skin; putting medicated drops or ointment into the eye; injecting them from a syringe; inserting them in the form of a suppository into the rectum or in the form of a pessary into the vagina.

*Forms:* plural: recta

**reduction**

n. the process where a substance gains electrons

Oxidation and reduction reactions occur simultaneously as one substance gives electrons and the other receives them.

*Forms:* plural: reductions

**reflection**

n. the turning back of a waveform as it comes across a boundary

Sound, light and heat can all undergo reflection.

*Forms:* plural: reflections

**reflex**

n. an involuntary action; an automatic response

There is a knee reflex that is often tested by doctors.

*Forms:* plural: reflexes

**reflex action**

n. a stereotyped and non-voluntary response that occurs in response to a stimulus

Constriction of the pupil in response to light is a reflex action.

*Forms:* plural: reflex actions

**reflux**

n. regurgitation of acid from the stomach

Acid reflux is more common after eating a very heavy meal.

*Forms:* plural: refluxes

**refraction**

n. the bending of a waveform as it passes to a medium of different density

Refraction can occur with light or sound waves.

*Forms:* plural: refractions

**regenerate**

v. to grow again; to reform

Some cells of the body can regenerate after damage. The epidermis can regenerate after injury.

*Forms:* regenerated; regenerated; regenerating

**regeneration**

n. the regrowth of lost or damaged parts or cells

Nerve regeneration is a slow and limited process.

*Forms:* no plural

**regular**

adj. usual; normal; occurring at fixed intervals

The pulse is not completely regular as it can be affected by respiration.

*Forms:* more regular; most regular; the most regular

**regulator**

n. a substance that governs a reaction or process

The pancreas is the main regulator of blood sugar levels.

*Forms:* plural: regulators

**regurgitate**

v. to bring back undigested food from the stomach

Some animals regurgitate their food to feed their young. When the dry season comes and food is scarce, the active workers of the colony visit this living larder and caress the repletes with their antennae until they regurgitate droplets for them.

*Forms:* regurgitated; regurgitated; regurgitating

**regurgitation**

n. the process of bringing back undigested food from the stomach

Stimulating the gag reflex at the back of the throat after eating can lead to regurgitation of food.

*Forms:* no plural

**relate to**

v. to do with; to be concerned with

The degree of health risks relates to some extent to the level of intake; the drugs may affect the foetus directly, or create conditions in which complications are more likely to develop, for example by lowering the birth weight, or affecting the enzymes.

*Forms:* related to; related to; relating to

**relaxant**

n. something which induces a state of rest in the body

Muscle relaxants are given to help reduce the pain of muscle contractions.

*Forms:* plural: relaxants

**renal**

adj. relating to the kidney

Non-steroidal anti-inflammatories can cause renal failure. High dose oral mesalazine does not seem to be nephrotoxic in rats when given for four weeks but both rats and dogs develop renal papillary necrosis when fed high dose mesalazine for 6 to 12 months.

**replace**

v. to put back into a former position; to substitute

After menopause women are offered HRT to replace the hormones they lack.

*Forms:* replaced; replaced; replacing

**reproduce**

v. to make similar structures or organisms

Many plants can reproduce sexually and asexually.

*Forms:* reproduced; reproduced; reproducing

**residual**

adj. the part left at the end

After certain people urinate a residual volume of urine is left in the bladder.

**respiratory**

adj. relating to the breathing

He had a respiratory arrest and died. Smoking crack during pregnancy can cause low birth-weight, respiratory problems and premature labour.

**resuscitate**

v. to bring back to life

The patient collapsed but was successfully resuscitated.

*Forms:* resuscitated; resuscitated; resuscitating

**resuscitation**

n. the act of bringing someone back to life

Doctors need to be able to carry out basic resuscitation procedures. Immature babies are even more likely than others to have their umbilical cords clamped and cut immediately after birth to allow resuscitation and transfer to neonatal intensive care.

*Forms:* plural: resuscitations

**reticulate**

adj. describing a network; net-like

A leaf has reticulate veins.

**retina**

n. light-sensitive cells lining the eye

The retina is at the back of the eye.

*Forms:* plural: retinas

**retina disease**

n. malfunction of the light-sensitive membrane which is part of the eyeball

Retina disease which may be caused at an output level of 60 mW to 100 mW in LLLT can be avoided by preventing the single-color laser beam from being radiated to the outside of the projecting part 200 in such a manner that the probe 300a of the switch part 300 is pushed against the treatment object region 500.

*Forms:* plural: retina diseases

**retinol**

n. vitamin A

Retinol is needed for healthy eyesight.

*Forms:* no plural

**retrovirus**

n. a pathogenic agent containing RNA, which can convert to DNA inside a cell

HIV is a retrovirus.

*Forms:* plural: retroviruses

**reverse**

v. to turn back; to change back

Scientists continue to search for ways to reverse the aging process.

*Forms:* reversed; reversed; reversing

**reversible**

adj. able to be changed back

An example of a reversible change is melting ice — if you lower the temperature ice forms again.

**rheumatic**

adj. relating to the joints

She complained of rheumatic pain, especially in the winter. There are many other more common causes of aortic incompetence, including rheumatic fever, but cases of syphilitic aortic-valve disease still turn up from time to time in this country, albeit rarely.

**rheumatoid arthritis**

n. chronic disease of the joints

Rheumatoid arthritis leads to stiffness, pain, weakness and deformity of the joints.

*Forms:* no plural

**rhodium**

n. metallic element like platinum

Rhodium is used as a catalyst. The conversion of methanol and carbon monoxide into acetic acid is catalysed homogeneously by a soluble rhodium compound.

*Forms:* plural: rhodiums

**rib**

n. one of 12 pairs of long, thin bones that curve from the spine to join the sternum in front

The ribs form the chest cavity.

*Forms:* plural: ribs

**rib cage**

n. the bony cavity of the chest formed by the costa and sternum

The rib cage protects the lungs and heart.

*Forms:* plural: ribcages

**riboflavin**

n. B vitamin needed for carbohydrate metabolism and the maintenance of mucus membranes

Riboflavin is found in eggs, meat and green vegetables.

*Forms:* plural: riboflavins

**ribonucleic acid RNA**

n. part of the cell center that codes for protein synthesis

RNA is a component of viral genes.

*Forms:* plural: ribonucleic acids

**ribosome**

n. granules made up of protein and RNA that make polypeptides

Some ribosomes are attached to the endoplasmic reticulum and some are free in the cell cytoplasm.

*Forms:* plural: ribosomes

**rickets**

n. bone disease due to vitamin D deficiency

Rickets is a disease of childhood.

**rifabutin**

n. a broad-spectrum antibiotic that is being used as prophylaxis against disseminated *Mycobacterium avium* complex infection in HIV-positive patients; brand name: Mycobutin

Rifabutin and ethambutol in combination were assessed in 16 patients with recurrent Crohn's disease who had undergone an ileal resection with a partial colectomy and ileocolonic anastomosis.

*Forms:* no plural

**rifampin**

n. generic name for a drug that is used to treat tuberculosis; trade names: Rifadin and Rimactane

Rifampin is an antibiotic that reduces the number of meningococcal bacteria in the nose and throat.

*Forms:* no plural

**rigid**

adj. stiff; very hard

When you die your body becomes rigid (rigor mortis).

*Forms:* more rigid; most rigid; the most rigid

**rigor mortis**

n. rigidity of death

After death rigor mortis sets in very quickly.

*Forms:* no plural

**ritonavir**

n. a protease inhibitor applied in treating HIV; trade name: Norvir

Ritonavir (trade name Norvir) is one of a class of anti-HIV drugs called protease inhibitors.

*Forms:* no plural

**rotate**

v. to turn around an axis

The crops -- puro papa (potatoes), pura oca (sweet potatoes) and trigo cebada (wheat) -- rotate each year.

*Forms:* rotated; rotated; rotating

**rough endoplasmic reticulum**

n. series of membranes covered with ribosomes that make proteins

Rough endoplasmic reticulum has ribosomes on its surface whereas smooth endoplasmic reticulum does not.

*Forms:* plural: rough endoplasmic reticulums

**rubbery**

adj. describing the ability to be stretched

Latex is a rubbery material.

*Forms:* more rubbery; most rubbery; the most rubbery

**rust**

n. iron oxide that forms when exposed to oxygen and moisture

Rust is red-brown in color.

*Forms:* no plural

**rust**

v. to corrode

When a layer of red-brown iron oxide forms on a metal we say it is rusting.

*Forms:* rusted; rusted; rusting

**SI unit**

n. international science measurements

There are seven main units in this measurement system.

*Forms:* SI units

**s-block element**

n. members in groups 1 and 11 of the periodic table

The S-block elements are reactive metals.

*Forms:* plural: s-block elements

**sacrum**

n. a triangular bone located between the coccyx and the lumbar vertebra

The sacrum consists of five fused vertebra.

*Forms:* plural: sacrum

**salivary amylase**

n. enzyme hydrolyzing starch into sugar

Saliva consists of salivary amylase which hydrolyzes only a small amount of food, since it only occurs in the mouth.

*Forms:* no plural

**salt**

n. sodium chloride; white powder used for seasoning food

Salt is found naturally in the ocean. Salts are needed for fluid homeostasis.

*Forms:* plural: salts

**salt hydrolysis**

n. a chemical reaction or process in which sodium chloride is broken down by reaction with water

Solutions of the salts of weak bases are acidic and those of weak acids are alkaline because of hydrolysis.

*Forms:* no plural

**salty**

adj. piquant

Urine is a salty excretion.

*Forms:* saltier; saltiest; the saltiest

**sample**

n. a representative part of a group

A random sample is often taken for the purposes of a scientific study.

*Forms:* plural: samples

**sample**

v. to take a representative part or portion; to taste something

A sample of tissue was taken for analysis.

*Forms:* sampled; sampled; sampling

**saquinavir**

n. a weak protease inhibitor that is applied in treating HIV; trade name: Invirase

Saquinavir is a synthetic, transition state, peptidomimetic analog which inhibits the HIV protease and thereby prevents the maturation and infectivity of the viral particle.

*Forms:* no plural

**sarcomere**

n. contractile unit made up of actin and myosin (thick and thin filaments)

Sarcomeres are joined at their ends by the Z-line.

*Forms:* plural: sarcomeres

**saturate**

v. to completely load something so it is unable to take any more

If you saturate a solution with solute no more solute will dissolve in it. Before placing the planted lily into the pond it is best to saturate the growing medium using a watering can with a fine rose to settle the soil around the plant.

*Forms:* saturated; saturated; saturating

**saturated**

adj. containing as much of a substance as possible

A saturated solution is one where no more solute can be dissolved in it.

*Forms:* more saturated; most saturated; the most saturated

**saturated fat**

n. substance which contains only single bonds connecting the atoms

Saturated fats e.g. butter are solid at room temperature.

*Forms:* plural: saturated fats

**scalp**

n. thick skin area which is covered by the hair on our heads; the skin that covers the top of the head

The scalp has a lot of blood vessels supplying it.

*Forms:* plural: scalps

**scan**

n. a computer generated image of a part of the body

Radiologists take scans and interpret them.

*Forms:* plural: scans

**scapula**

n. the triangular bone that lies at the back of the rib cage; the shoulder blade

Each person has a right and a left scapula.

*Forms:* scapulae

**sclera**

n. white outer coat of the eye

The sclera becomes the cornea at the front of the eye.

*Forms:* plural: scleras

**scrotal sac**

n. one of 2 bags of skin hanging behind the penis in the male

The testes lie inside the scrotal sacs.

*Forms:* plural: scrotal sacs

**scrotum**

n. sac that contains the testis and epididymus outside of the abdomen

The scrotum allows sperm to be produced and stored at a lower temperature to the body.

*Forms:* plural: scrotums or scrota

**scurvy**

n. disease caused by vitamin C deficiency

Treatment with vitamin C reverses the effects of scurvy.

*Forms:* no plural

**secondary lysosome**

n. a cytoplasmic cell organelle that has fused with a vesicle containing matter to be ingested

Secondary lysosomes release powerful enzymes.

*Forms:* plural: secondary lysosomes

**secondary structure**

n. the coiling of the peptide chains in a protein in specific ways

The secondary structure of a protein sheet may be that of an alpha helix or a beta pleated sheet.

*Forms:* plural: secondary structures

**sedative**

adj. induces sleep; soporific

Sleeping pills have sedative properties.

*Forms:* more sedative; most sedative

**seek advice**

v. to consult with; to try to obtain information on how to solve a problem

The suggestions for when to seek advice in the following sections are only intended to be guidelines to help you decide when you need to call on the expert help of your health care practitioner.

*Forms:* sought advice; sought advice; seeking advice

**segregate**

v. to separate

Mendel's law states that each pair of inherited alleles segregate when the gametes are formed.

*Forms:* segregated; segregated; segregating

**seizure**

n. a fit

Epileptics are people who have seizures.

*Forms:* plural: seizures

**semi-conductor**

n. partially able to transmit electricity

Semi-conductors can not conduct electricity as well as metals can.

*Forms:* plural: semi-conductors

**seminal fluid**

n. containing glandular secretions from the testicle, and other small glands; fluid part of semen without sperm

The seminal fluid provides a transport medium and nourishment for the developing spermatozoa. Seminal fluid produced by the seminal vesicles, the prostate gland, and the bulbourethral gland is mixed with sperm in the reproductive tract.

*Forms:* plural: seminal fluids

**senile**

adj. relating to old age especially those who are mentally or physically weak

Senile dementia is a disorder of memory starting in old age.

*Forms:* more senile; most senile; the most senile

**sensation**

n. a physical feeling

Pain is an unpleasant sensation.

*Forms:* plural: sensations

**sense**

n. one of five faculties with which we can take in information from the outside world

Sight, touch, hearing, taste and smell are the five senses.

*Forms:* plural: senses

**sensitive**

n. responsive to physical stimuli

At the end of the corpus spongiosum (through which runs the urethra) is the glans penis which is larger than the rest of this cylinder and is the most sensitive part of the penis.

*Forms:* sensitive; more sensitive; most sensitive; less sensitive; least sensitive

**separate**

v. to isolate; to move apart

Liquids of different densities can be separated in a separating funnel.

*Forms:* separated; separated; separating

**separation**

n. isolation

A separating funnel is used for the separation of immiscible liquids.

*Forms:* plural: separations

**septal**

adj. relating to a membranous sheet

An atrial septal defect is a defect of the septum that connects the two atria of the heart.

**septic**

adj. infected (as a result of the presence of microorganisms)

A septic tank is an open system and depends on being sited where it can eventually discharge into a natural watercourse or soakaway.

*Forms:* more septic; most septic; the most septic

**septicemia**

n. illness caused by bacteria in the blood

Another name for septicemia is blood poisoning.

*Forms:* no plural

**severe**

adj. serious; harsh

He has a severe head injury and may die.

*Forms:* more severe; most severe; the most severe

**sex**

n. gender; the act of copulation (slang)

It may be difficult to tell the sex of a child at birth in rare cases.

*Forms:* no plural

**sex hormone**

n. chemical substance that plays a role in the development of gender specific characteristics

Testosterone, estrogen and progesterone are examples of sex hormones.

*Forms:* plural: sex hormones

**sexual function problems**

n. difficulties in performing intercourse or in producing offspring

The need for estimates of the extent of sexual function problems in the general population has become more urgent given recent debates surrounding the identification and definition of "sexual dysfunction," the increased availability of pharmacological interventions, and possible changes in our expectations of what constitutes sexual function and fulfillment.

*Forms:* only plural

**sexual intercourse**

n. copulation

Sexual intercourse may or may not result in reproduction occurring. Sexual intercourse is defined as the penetration of the penis into the vagina: ejaculation is not required, and the offence is committed as soon as penetration takes place, although it has been held that the offence continues throughout penetration (so that if the woman revokes her consent during intercourse and the man fails to withdraw, he commits rape).

*Forms:* no plural

**sexual performance**

n. capability to carry out intercourse

Taxi driver Raymond Atkinson stabbed his wife Randy, 47, four times after she taunted him about his sexual performance compared to her lover.

*Forms:* no plural

**sexual stimulation**

n. emotional and physical state in which a person wants to engage in intercourse

As is usual among deviations, most men and a good many women have some fetish object or objects which provide them with sexual stimulation and can increase the enjoyment of sexual activity.

*Forms:* no plural

**sexually aroused**

phr. in the mood to engage in intercourse

Competition for a female or other sex object may not produce the same hierarchy as that for food, simply because a sexually aroused animal, say, is not necessarily a hungry one.

**sexually transmitted disease**

n. generic name for illnesses such as HIV, hepatitis b, gonorrhea or syphilis

The IFPA maintained that the sale was part of its work to halt the spread of AIDS (acquired immune deficiency syndrome) but conservative groups won their case against the free availability of contraception on the basis of a 1985 law limiting the supply of contraceptives to chemists, sexually transmitted disease clinics, family planning clinics, and doctors' surgeries.

*Forms:* sexually transmitted diseases

**shake**

v. to tremble

He was shaking from fear.

*Forms:* shook; shaken; shaking

**shape**

n. the dimensional appearance; the morphology

Molecular shape depends on the electron pairs in the outer shell of the middle atom.

*Forms:* plural: shapes

**sharp**

adj. having a thin edge suited for cutting

Surgeons need sharp blades to operate.

*Forms:* sharper; sharpest; the sharpest

**shield**

v. to block; to protect against

Inner electrons shield outer electrons from the full power of the nuclear charge.

*Forms:* shielded; shielded; shielding

**shielding**

n. effect where the electrons closest to the nucleus reduce the nuclear attraction on the electrons in the shell furthest away from the nucleus

Shielding explains the effective nuclear charge of elements in the periodic table.

*Forms:* no plural

**shiver**

v. to shake or tremble with cold, fear or emotion

He was shivering because he was feeling feverish.

*Forms:* shivered; shivered; shivering

**shortness of breath**

n. difficulty in respiration; rapid respiration

Shortness of breath is normal during hard exercise. Slowly growing internal lesions can produce great difficulties in the lung and the gut, causing shortness of breath and other problems.

*Forms:* no plural

**shoulder**

n. the joint where the top of the arm joins the trunk

She was complaining of pain in her shoulder.

*Forms:* plural: shoulders

**shoulder blade**

n. the triangular bone that rests at the back of the ribcage; scapula

The shoulder blade allows a wide range of movement of the arm.

*Forms:* plural: shoulder blades

**sick**

adj. unwell; opposite of healthy

People go into hospital when they are sick.

*Forms:* sicker; sickest; the sickest

**side**

n. either half of the body

My left side hurts!

*Forms:* plural: sides

**side effect**

n. secondary and usually unwanted result caused by a drug

As I didn't want to undergo the inconvenience of surgery to remove the offending gall bladder, I opted for virtually fat free eating, with the miraculous side effect of acquiring slim hips and thighs for the first time in my adult life.

*Forms:* plural: side effect

**side reaction**

n. a response which creates an unwanted product other than the main product

The unwanted product made in a side reaction is called a byproduct.

*Forms:* plural: side reactions

**sight**

n. vision; one of the five senses

The eyes are the organs of sight.

*Forms:* no plural

**sigma bond**

n. a covalent link formed between electron pairs in an orbital

In a sigma bond the electron density is concentrated between the two electron nuclei.

*Forms:* plural: sigma bonds

**significant**

adj. important; highly relevant

Statistics can tell us if a result is significant or not.

*Forms:* more significant; most significant; the most significant

**sildenafil**

n. the generic name for Viagra; a drug that cures impotence

The chemical sildenafil citrate is the active ingredient in Viagra.

*Forms:* no plural

**silica**

n. white crystalline compound used to make glass

Silica is also known as quartz.

*Forms:* plural: silicas

**silicon**

n. group 1V element with the chemical symbol Si

Silicon combines with oxygen to form silicon dioxide (silica).

*Forms:* plural: silicones

**sinus**

n. air spaces in the skull; pathological cavity containing pus

Whenever I catch a cold my sinuses hurt.

*Forms:* plural: sinuses

**sinusitis**

n. type of infection or inflammation of membranes

Infections such as sinusitis, tonsillitis, bronchitis, pharyngitis and mumps are another cause, and malignancy or radiotherapy can also cause a dry mouth which leads to halitosis.

*Forms:* no plural

**skeletal**

adj. relating to the bones; very thin (informal)

A skeletal muscle is a muscle attached to a bone.

**skeleton**

n. all the bones that form the structure of the body

The skeleton provides attachments for muscles.

*Forms:* plural: skeletons

**skin**

n. the organ system that covers the body the integument.

The skin has two layers; the epidermis and the dermis.

*Forms:* plural: skins

**skin rash**

n. inflammation

If the patient's well-being is enhanced or if a problem such as asthma is cured, but joint pains flare up or a skin rash develops, the physician can reassure the patient that things are moving in the right direction and that the joint or skin problem should be transient and will also clear up in due course.

*Forms:* plural: skin rashes

**skull**

n. bony skeleton of the head

The skull protects the brain.

*Forms:* plural: skulls

**sleep**

n. the period of closed-eye rest usually taken at night

Most people need around 8 hours sleep a night.

*Forms:* plural: sleeps

**slightly**

adv. a little bit; marginally

The man was slightly drunk when he walked out in front of the car.

**small intestine**

n. part of bowel from the stomach to the cecum

The small intestine consists of the duodenum; jejunum and ileum.

*Forms:* plural: small intestines

**smallpox**

n. an often fatal; contagious illness which has almost been eradicated through vaccination

Smallpox is caused by the pox virus.

*Forms:* no plural

**smell**

n. olfactory sense; an odor

Taste is closely related to the sense of smell.

*Forms:* plural: smells

**smelly**

adj. having an unpleasant or strong odor

An infected wound may be smelly.

*Forms:* smellier; smelliest; the smelliest

**smoke**

v. to inhale and exhale cigarettes

Smoking causes lung disease.

*Forms:* smoked; smoked; smoking

**smooth endoplasmic reticulum**

n. series of membranes that manufacture lipids in the cell and lack ribosomes on its outer surface

Smooth endoplasmic reticulum also has a role in drug metabolism.

*Forms:* plural: smooth endoplasmic reticuli

**snore**

v. to make a loud nasal sound during sleep which keeps others awake

Snoring occurs when the airway collapses intermittently.

*Forms:* snored; snored; snoring

**snore**

n. noise made during sleep which keeps others awake

Loud snores could be heard from the room next door.

*Forms:* plural: snores

**sodium**

n. chemical element with the symbol Na that is an important ion in cells

Sodium has a role in fluid balance, nerve conduction and muscle contraction.

*Forms:* no plural

**sodium chloride**

n. white powder used to season food

Sodium chloride is also called table salt.

*Forms:* plural: sodium chlorides

**sodium hydroxide**

n. base that is used as a reagent for several tests

Sodium hydroxide is an alkali.

*Forms:* plural: sodium hydroxides

**sodium-potassium pump**

n. active transport mechanism that uses ATP to exchange two common positive ions

All animal cells have sodium-potassium pumps.

*Forms:* plural: sodium potassium pumps

**solute**

n. substance

In a salt solution the salt is the solute and water is the solvent. The solute salt is dissolved into a solvent such as water to make a solution.

*Forms:* plural: solutes

**somatic**

adj. relating to the body

Somatic cells undergo mitosis. Capsaicin sensitive afferent neurones may affect both defense and repair mechanisms in the gastric mucosa, because they are sensitive to a variety of noxious stimuli and have been reported to play both a defensive and trophic part in somatic tissues.

**soporific**

adj. induces sleep; sedative

Morphine has soporific properties.

*Forms:* more soporific; most soporific; less soporific; least soporific

**spasm**

n. painful and prolonged muscular contraction; a bout (of pain)

The patient was having intermittent painful spasms.

*Forms:* plural: spasms

**spectator**

n. something or someone that does not take part but is present (and watching)

An ion which does not take part in a chemical reaction is called a spectator ion.

*Forms:* plural: spectators

**spectator ion**

n. electrically charged atom which is present in a solution but does not take part in a reaction

Spectator ions may not be written in a chemical equation.

*Forms:* plural: spectator ions

**speech**

n. vocalization; a formal talk given in public

There are language centers in the brain that are important for speech production.

*Forms:* plural: speeches

**sperm**

n. male gamete (sex cell)

Sperm are made in the testes.

*Forms:* plural: sperms

**spinal cord**

n. nervous tissue contained in the linked vertebra of the back

The spinal cord is protected by the bony skeleton.

*Forms:* plural: spinal cords

**spine**

n. the vertebral column

Spine is another term for the backbone.

*Forms:* plural: spines

**spleen**

n. abdominal organ which filters blood and stores, produces and destroys blood cells

The spleen is on the left side of the abdomen under the stomach.

*Forms:* plural: spleens

**spontaneous reaction**

n. a process that can occur without the addition of outside energy

A spontaneous reaction does not necessarily happen quickly.

*Forms:* plural: spontaneous reactions

**sprain**

n. a ligament injury due to strain or excess stretching

'Don't worry! I didn't fracture anything. It's just a sprain!'  
There was a nasty sprain which needed an X-ray, a query appendix for the surgical reg and a couple of cuts and other minor injuries which needed cleaning up and suturing.

*Forms:* plural: sprains

**sprain**

v. to overstrain a joint so as to cause ligament injury

He tripped and sprained his ankle on the way to work this morning.

*Forms:* sprained; sprained; spraining

**spread**

v. to move outwards to cover a larger area

Infections may spread if the host's immune system is weak.

*Forms:* spread; spread; spreading

**sputum**

n. that which is expectorated

Sputum contains saliva, mucus, cells and pus if there is infection in the respiratory tract.

*Forms:* no plural

**stapes**

n. innermost bone of the three ossicles

The stapes is also known as the stirrup.

*Forms:* no plural

**staphylococcus**

n. bacteria found on the skin and mucus membranes

Staphylococcus can cause serious infections in open wounds. The differential diagnosis of phlegmonous gastritis consists of bacterial infections especially staphylococcus aureus and including tuberculosis.

*Forms:* plural: staphylococci

**starch**

n. carbohydrate which can be found in potatoes, rice, bread and other foods

Pancreatic amylase hydrolyzes starch to maltose.

*Forms:* no plural

**starvation**

n. the state of being without food for a long time

Patients are at risk of starvation if they don't or can't eat when they are ill.

*Forms:* no plural

**stem cell**

n. a small cavity with the potential to form many different types units

Embryos contain lots of stem cells. When the stem cell divides one of the two daughter cells may go on to give rise to other types of cell, whereas the other daughter cell remains a stem cell, capable of dividing again and always giving one daughter to diversification.

*Forms:* plural: stem cells

**sterile**

adj. unable to reproduce; free of microorganisms that could cause infection

An operating theatre must be as sterile as possible in order to reduce the risk of infection.

**sterilized**

adj. to be free of micro-organisms; to be unable to reproduce

Surgical instruments must be sterilized after each use.

**steroid**

n. molecule containing four rings of carbon atoms

Hormones, some vitamins and cholesterol are steroids.

*Forms:* plural: steroids

**stethoscope**

n. instrument used by doctors to listen to heart sounds; lung sounds and intestinal sounds

Doctors often hang their stethoscopes around their necks.

*Forms:* plural: stethoscopes

**stiff**

adj. not flexible; rigid

If you exercise your muscles unusually hard you may feel stiff afterwards.

*Forms:* stiffer; stiffest; the stiffest

**stiffness**

n. lack of flexibility; rigidity

Arthritis can lead to stiffness in the joints.

*Forms:* no plural

**stomach**

n. organ that digests food and produces hydrochloric acid

The stomach lies in the epigastrium.

*Forms:* plural: stomachs

**stomach ulcer**

n. a small erosion (hole) in the gastrointestinal tract

A stomach ulcer is usually caused by an infection with a bacterium (bug) called *H. pylori*.

*Forms:* plural: stomach ulcers

**stomach upset**

n. dyspepsia; indigestion; malfunction of the digestive system characterized by heartburn or nausea

Concomitant symptoms are symptoms not directly related to but arising at the same time as, the main complaint such as a headache with diarrhoea or cold sores with a fever -- things which are repeatedly associated, so that the patient might say "Whenever I get this problem I always get a stomach upset", or whatever it may be.

*Forms:* no plural

**stomata**

n. pores on the leaf surface

Transpiration occurs from the surface of the leaf through stomata. With atmospheric levels of carbon dioxide expected to double in the next century, plants would open the stomata through which they breathe for shorter periods reducing the transpiration of water and providing less water for cloud formation.

*Forms:* only plural

**stop**

v. to block; to cease

The British Diabetic Association has urged diabetics not to stop taking genetically-engineered "human" insulin.

*Forms:* stopped; stopping

**storage**

n. the process of keeping drugs or medications at home

Many store food overwinter in fleshy stems, roots and leaf bases; deep storage roots are restricted to dry areas of the subarctic, where the spring thaw comes early.

*Forms:* plural: storages

**streptococcus**

n. bacteria which causes respiratory tract infections and wound infections

Streptococci may be killed by penicillins.

*Forms:* plural: streptococci

**stroke**

n. heart attack; apoplexy; cerebrovascular accident; (CVA)

Having consulted the therapists about the best type of activity to choose for the patient, you may be able to work out how best to interest and amuse the patient through your knowledge of what he enjoyed doing before his stroke or head injury.

*Forms:* plural: strokes

**sub-**

pref. under

Exposure to sub-zero temperatures can cause hypothermia.

**subnormal**

adj. below average

His heart function is subnormal.

*Forms:* more subnormal; most subnormal; the most subnormal

**substrate**

n. the material on which an enzyme works

The substrate fits the active site of the enzyme. Fermentation is regulated by the amount of substrate available and its chemical composition, the substrate specificities and preferences of the bacterial species present and the metabolic pathways through which they metabolise the substrate.

*Forms:* plural: substrates

**sucrase**

n. enzyme that breaks down a carbohydrate

Sucrase hydrolyses sucrose to glucose and fructose.

*Forms:* plural: sucrases

**sudden**

adj. happens rapidly or abruptly

His demise was sudden and unexpected.

*Forms:* more sudden; most sudden; the most sudden

**suffocate**

v. to asphyxiate

Removing the air from an organism will suffocate it.

*Forms:* suffocated; suffocated; suffocating

**sugar**

n. carbohydrates which are soluble because of the presence of -OH groups

Sugars are sweet.

*Forms:* plural: sugars

**suicide**

n. the act of intentionally taking one's own life

The number of suicides is increasing every year. The Health, Welfare, and Advice Centre was established to co-ordinate the work of a variety of voluntary agencies and statutory social services in an area characterized by severe social problems and high rates of attempted suicide.

*Forms:* plural: suicides

**sulfur**

n. chemical element with the symbol S

Sulfur makes up most proteins.

*Forms:* no plural

**sunburn**

n. acute and painful skin damage

It is very important to protect our skin from sunburn.

*Forms:* plural: sunburns

**surface tension**

n. the property of liquid membranes which allows them to contract to a minimum area

Water has a high surface tension because of its hydrogen bonds.

*Forms:* plural: surface tensions

**surfactant**

n. lipoprotein agent with a hydrophobic and a hydrophilic part

Surfactants lower the surface tension of a liquid such as water. The aqueous micelles comprising droplets of 1-octanol stabilised by octanoate (surfactant is generated upon addition of sodium permanganate, which oxidises the alcohol to give the salt), could have biological relevance, because these may have been among the first prebiotic structures able to self-replicate.

*Forms:* plural: surfactants

**surgical**

adj. relating to treatment of diseases and injuries by medical operation

Rentokil Medical Services provide for the safe collection and disposal of used hypodermic needles, scalpels and other surgical instruments and soft clinical waste such as bandages and other medical dressings.

**suspect**

v. to guess; to assume

Scientists suspect a virus, bacterium or protozoan which may have been transported from the Pacific through the Panama Canal.

*Forms:* suspected; suspected; suspecting

**sustained**

adj. held for a long time

Sustained muscle contraction can be painful.

*Forms:* more sustained; most sustained; the most sustained

**suture**

n. a joining of the edges of a wound

Surgeons usually put sutures in under anesthetic. The segmental plate or eusternum is subdivided into three sclerites, the presternum, basisternum and sternellum and in generalized forms the basisternum is separated from the sternellum by a transverse suture connecting the apophyseal pits -- points of cuticular invagination from which arises a pair of furcal arms forming part of the thoracic endoskeleton.

*Forms:* plural: sutures

**swallow**

v. to cause ingested substances to move down the throat and into the stomach

Swallowing may be painful if the throat is sore.

*Forms:* swallowed; swallowed; swallowing

**sweet**

adj. having the taste of sugar

Fructose is sweeter than sucrose.

*Forms:* sweeter; sweetest; the sweetest

**sweetness**

n. taste sensation of sugar

Sugars have variable sweetness.

*Forms:* no plural

**swollen**

adj. engorged (usually with fluid)

Heart or kidney disease may cause swollen ankles.

*Forms:* more swollen; most swollen; the most swollen

**symptom**

n. indication that bodily functions change; usually associated with a particular disease

A symptom of diabetes is frequent urination.

*Forms:* plural: symptoms

**synapse**

n. junction between the end of a nerve and another type of excitable cell

Many drugs act at the synapse to alter the function or release of neurotransmitters.

*Forms:* plural: synapses

**synthesis**

n. production

Protein synthesis occurs in the ribosomes.

*Forms:* no plural

**syphilis**

n. chronic venereal infection

Syphilis is caused by a spirochete. Syphilis is caused by the bacterium *Treponema Pallidum*.

*Forms:* no plural

**systole**

n. the part of the cardiac cycle during which the heart muscle is contracting

Atrial systole occurs before ventricular systole.

*Forms:* plural: systoles

**TB**

abbr. infectious lung disease

TB stands for "tuberculosis" and is usually caught by breathing contaminated air.

*Forms:* tuberculosis

**TSH**

abbr. hormone which is secreted by the anterior pituitary gland

TSH is secreted by the anterior pituitary and stimulates the production of thyroid hormones from the thyroid.

*Forms:* thyroid stimulating hormone

**tablet**

n. a dose of medicine in the form of a small pellet

If a migraine does begin, it can now be relieved in 80% of cases by Imigram, an injectable drug available on prescription only, which should be available in tablet form soon.

**take this drug by mouth**

phr. use this medicine orally

To treat idiopathic pulmonary fibrosis you can take the drug Prednisone by mouth every day.

**taste**

n. flavor

That medicine has a horrible taste.

*Forms:* plural: tastes

**taste**

v. to try the flavor of something by putting it on the tongue

Most medicines don't taste very nice!

*Forms:* tasted; tasted; tasting

**taste buds**

n. clusters of receptor cells on the upper surface of the tongue, soft palate, and epiglottis

Taste buds are located on the tongue and consist of forty epithelial cells.

*Forms:* only plural

**tear**

n. fluid that is released from the lachrymal gland

Tears may be triggered by emotion, pain, infection or inflammation.

*Forms:* plural: tears

**telophase**

n. stage of the cell cycle where cell division occurs

Telophase follows anaphase in the cell cycle. Telophase comes after anaphase in the cell cycle.

*Forms:* plural: telophases

**temperature**

n. the degree of hotness or coldness of a body or environment

Normal temperature is around 98.4 degrees Fahrenheit in a human.

*Forms:* plural: temperatures

**tendency**

n. the way a thing or person is likely to act or behave

She has a tendency to catch every infection going.

*Forms:* plural: tendencies

**tendon**

n. connective tissue between a muscle and a bone

The Achilles tendon is the largest tendon in the body. Infection or inflammation of a tendon is called tendonitis. At a gallop, the amount of strain on a horse's fore tendon is very near to its maximum capacity and any further loading leads to progressive damage to the tendon fibres resulting in extreme cases of tendon rupture.

*Forms:* plural: tendons

**teratogen**

n. any substance, chemical or otherwise, which causes abnormalities in the developing fetus

Thalidomide is a teratogen as it affects limb development.

*Forms:* plural: teratogens

**terminal**

adj. the end

The terminal ganglia are located near or in the organs they supply.

**terminate**

v. to end

The experiment was terminated after enough results were recorded.

*Forms:* terminated; terminated; terminating

**testicle**

n. male sex organ found in the scrotum

The testicle consists of the testis, the vasa efferentia and epididymis. The main symptom of prostatitis is pain, which may be "referred" to other sites, such as a testicle, the base or tip of the penis, or the perineum (behind the scrotum) -- and often pain on or after ejaculation.

*Forms:* plural: testicles

**testicular**

adj. relating to the male gonads

Testicular cancer can affect men in their 30's and 40's. His academic interests focus on cancers of young adults, particularly lymphomas and testicular tumours.

**testosterone**

n. the main sex hormone in the male

The main source of testosterone comes from the testis. Wrangham, theorizing tentatively from some physiological evidence from human subjects, suggests that masturbation may stimulate the secretion of testosterone and may occur when the latter falls below some threshold.

*Forms:* no plural

**tetanus**

n. disease caused by bacteria entering wounds

Tetanus can cause painful contraction of the jaws called 'lockjaw'.

**therm-**

pref. heat

A thermometer measures temperature (the amount of 'heat').

**thermal**

adj. relating to heat

A thermal reaction is one that involves a heat exchange.

**thermodynamic**

n. the study of energy and how it changes

The first law of thermodynamics states that the energy of the universe stays constant.

*Forms:* plural: thermodynamics

**thermometer**

n. instrument that is used to measure temperature

Thermometers contain mercury.

*Forms:* plural: thermometers

**thiamine**

n. vitamin B1

Thiamine deficiency is common in alcoholics.

*Forms:* no plural

**thick**

adj. of substantial width

Thick is the opposite of thin.

*Forms:* thicker; thickest; the thickest

**thorax**

n. area that contains the heart and lungs; the chest

The diaphragm separates the thorax from the abdomen.

*Forms:* plural: thoraxes

**thymus**

n. organ in the thorax involved in T-cell immune function

The thymus decreases in size over time. The thymus is believed to play a central role in the induction of autoimmunity in MG, and thymectomy generally leads to clinical improvement.

*Forms:* no plural

**tightly-closed container**

n. bottle, box or tube which contains drugs or medicines and is shut securely

The products obtained by distilling off the alcohol solvent show a hygroscopic property and thus must be preserved in a tightly closed container just before used as a vulcanization promoter in the vulcanization of fluorine-containing elastomers.

*Forms:* plural: tightly-closed containers

**tin**

n. metal with the chemical symbol Sn

Tin is used to coat food cans.

*Forms:* no plural

**tired**

adj. weary; lacking energy

Revision can make you very tired!

*Forms:* more tired; most tired; the most tired

**tissue**

n. a group of cells with the same shape and function

Muscle cells group together to form muscular tissue that helps us move.

*Forms:* plural: tissues

**titanium**

n. strong metal with a high melting point

Titanium is a metal that does not corrode.

*Forms:* no plural

**to double-up the dose**

phr. to increase the consumption of a particular drug or medication by two times

If the patient has missed a dose and does not remember until the next day, do not advise the patient to double up the dose.

**toenail**

n. hard structure at the end of the digits of the foot

Toenails are made of keratin.

*Forms:* plural: toenails

**tonsil**

n. nodule of lymph tissue at the back of the throat that enlarges to help fend off infections

The tonsils are also called the adenoids.

*Forms:* plural: tonsils

**tooth**

n. one of many enamel structures in the mouth

Tooth decay is caused by bacteria and poor oral hygiene.

*Forms:* plural: teeth

**torque**

n. moment of a force

Torque is the quantity causing rotation.

*Forms:* no plural

**tough**

adj. hard to break

Metals are tough.

*Forms:* tougher; toughest; the toughest

**toughness**

n. the amount of effort or energy required to break an object

Toughness is a property of metals.

*Forms:* no plural

**toxic**

adj. poisonous; harmful to health

Toxic chemicals usually carry a hazardous symbol.

*Forms:* more toxic; most toxic; the most toxic

**toxin**

n. poisonous substance

Bacteria make toxins that cause illness. White blood cells make antitoxins that destroy toxins.

*Forms:* plural: toxins

**trachea**

n. 'windpipe'; cartilaginous tube that connects the larynx to the bronchi

The trachea is usually between 10 and 12 centimetres long.

*Forms:* no plural

**tragus**

n. protuberance in front of the external auditory meatus

The tragus is made of cartilage. The tragus protects the external auditory meatus.

*Forms:* plural: traguses

**trans-**

pref. across

To transfer something means to take it across.

**transfer RNA**

n. agent that delivers the amino acids required for protein synthesis to the ribosomes

Transfer RNA attaches the amino acids to the protein chains in the ribosomes.

*Forms:* plural: transfer RNAs

**transmembrane**

adj. through the cell envelope

Transmembrane proteins are proteins that pass all the way through the cell membrane.

**transplant**

n. a functioning organ or part which is removed from one person and given to another to replace a similar but non-functioning part

He had a kidney transplant 3 years ago and he's doing very well. It was that determination which gave her doctors and parents such hope when she underwent a heart and lung transplant; a last ditch attempt to save her, after her lungs were virtually destroyed by the disease Cystic Fibrosis.

*Forms:* plural: transplants

**transport vesicle**

n. sac that takes proteins made in the endoplasmic reticulum to other organelles

Transport vesicles bud off the endoplasmic reticulum.

*Forms:* plural: transport vesicles

**transposon**

n. part of the DNA capable of replicating itself

Transposons are mobile pieces of DNA which can insert themselves in genes and cause mutation.

*Forms:* plural: transposons

**trauma**

n. a physical injury or accident inflicting pain

Renal tubular acidosis (RTA) is a major cause of trauma.

*Forms:* plural: traumata

**travel sickness**

n. nausea from the movement of a vehicle

Travel sickness is also known as motion sickness. Cars have a lower centre of gravity than ambulances, and are less likely, as a result, to cause travel sickness in sensitive patients.

*Forms:* no plural

**treatment**

n. medical care; therapy

Unfortunately, it seems to make candidiasis more likely, so anyone taking it would be well advised to adopt a sugar-free diet during the treatment, and for a month or so afterwards.

*Forms:* plural: treatments

**tremor**

n. small but uncontrolled shaking movements of a part of the body

Ethanol can induce a tremor in some people.

*Forms:* plural: tremors

**treponema pallidum**

n. the flagellate organism that causes syphilis

Treponema pallidum is a sexually transmitted agent.

*Forms:* plural: treponema pallidums

**triacylglycerol**

n. three fatty acids joined to a molecule

A triacylglycerol is also known as a triglyceride.

*Forms:* plural: triacylglycerols

**tricuspid**

adj. having three parts

The tricuspid valve lies between the right atrium and the right ventricle.

**tricuspid valve**

n. membranous flap that controls blood flow between the right atrium and the right ventricle

The tricuspid valve has three flaps.

*Forms:* plural: tricuspid valves

**triglyceride**

n. fat which has three fatty acids

Generally, the effect on triglyceride metabolism of excellent diabetic control is more profound than it is on cholesterol and LDL.

*Forms:* plural: triglycerides

**triiodothyronine**

n. hormone made by the thyroid gland

Deficiency of triiodothyronine may cause a hypothyroid state.

*Forms:* no plural, (T-3)

**triple bond**

n. three covalent linkages connecting two atoms

Nitrogen contains a triple bond.

*Forms:* triple bonds

**trophoblast**

n. the outer layer of cells in a blastocyst

The trophoblast becomes the chorion and then the placenta in man. Trophoblast is physiologically shed into the maternal circulation, whereas, in early pregnancy, NFEs (nucleated fetal erythrocytes) are the most common type of nucleated fetal cell in the fetal circulation.

*Forms:* plural: trophoblasts

**tuberculosis**

n. an infectious disease caused by the *Mycobacterium bacillus*

Many western countries have a vaccination program against tuberculosis.

*Forms:* no plural

**tubulin**

n. protein which makes up microtubules

Pairs of tubulin units assemble to form the microtubules. Microtubules, of which tubulin is the major protein constituent, are located in a circumferential band in the equatorial plane just under the cell wall in discoid platelets, which suggests that they may be important in maintenance of the platelet cytoskeleton.

*Forms:* plural: tubulins

**tumor**

n. an abnormal production of new tissue that has no purpose

The potential advantage of early treatment in asymptomatic patients with advanced colorectal cancer seems to have been confirmed by a trial from the Nordic Gastrointestinal Tumor Adjuvant Therapy Group.

*Forms:* also: tumour; plural: tumors or tumours

**turgid**

adj. swollen and engorged

Plant stems are turgid when they store water.

*Forms:* more turgid; most turgid; less turgid; least turgid

**turgor pressure**

n. intercellular force in plant cells that conveys rigid support to certain plants

When there is a lack of water the turgor pressure reduces and the plant wilts. In air, osmotic potential is almost balanced by the water potential: the turgor pressure is low and so the cells -- and leaf -- are rounder.

*Forms:* plural: turgor pressures

**two-dimensional**

adj. having length and width

Two dimensional views do not give a dimension of volume. Although the limb is three-dimensional I will treat it as if it were two-dimensional and only consider position with respect to two axes, the anteroposterior axis which runs across the limb from digit 2 to digit 4, and the long, or proximo-distal axis, which runs from the shoulder to the tip of the digits.

*Forms:* more two-dimensional; most two-dimensional; the most two-dimensional

**tympanic membrane**

n. the eardrum

The tympanic membrane is in the middle ear.

*Forms:* plural: tympanic membranes

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**ulcer**

n. open sore in the skin or mucus membrane

Ulcers are often difficult to heal. It may be that the effect of diagnosis is real and that duodenal ulcer is more persistent than gastric ulcer, or it may be that a higher proportion of gastric ulcer patients have been operated upon in the time between the two periods of registrations of drug use.

*Forms:* plural: ulcers

**ulna**

n. long bone of the lower arm (forearm)

The ulna and radius are the two bones of the lower arm.

*Forms:* plural: ulnas

**ultrasound**

n. type of scan that uses high frequency waves to image body parts

Ultrasound is frequently used in pregnancy.

*Forms:* plural: ultrasound

**ultraviolet**

adj. having shorter wavelengths than visible light

Ultraviolet light ranges from 4nm to 380nm on the light spectrum.

*Forms:* no plural

**umbilical cord**

n. structure that connects a developing baby to the placenta

The umbilical cord contains a system of blood vessels that allow nourishment to pass from the mother to the fetus. Nutrition is transported from the mother to the fetus via the umbilical cord.

*Forms:* plural: umbilical cords

**undergo**

v. to experience; to receive; to endure

Humans undergo major changes during development.

*Forms:* undergone; underwent; undergoing

**underweight**

adj. scraggy; scrawny; skinny

An underweight person has a low body mass index.

*Forms:* more underweight; most underweight; the most underweight

**uni-**

pref. one

A unicellular organism has only one cell.

**unicellular**

adj. relating to one biological unit

The amoeba is a unicellular organism which means it consists of only one cell.

**universal indicator**

n. chemical that changes color as the pH changes

Universal indicators cover a wide pH range.

*Forms:* plural: universal indicators

**unlikely**

adj. improbable

Great Britain, for their part, will be looking to recapture the many admirable qualities which brought them that improbable victory after Steve Hampson's early dismissal reduced them to 12 men.

*Forms:* more unlikely; most unlikely; less unlikely; least unlikely

**unreactive**

adj. not able to respond readily

The noble gases are unreactive. Most ancient silver was extracted from argentiferous (silver-rich) lead by cupellation, a process dating back to at least the second millennium BC, which involved oxidising the lead to molten litharge (lead oxide), leaving the relatively unreactive silver as the metal.

**uranium**

n. actinide with the chemical symbol U

Uranium can undergo nuclear fission.

*Forms:* plural: uraniums

**urea**

n. a waste product made when amino acids are broken down

Urea is made in the liver and excreted in the urine.

*Forms:* no plural

**ureter**

n. tube connecting the kidney to the bladder

The ureters are shorter in the female than the male. The very closeness of the anus to the external sexual parts might suggest connection while the penis, serving the dual purposes of sex and urination, and the similar contiguity of the ureter and vaginal opening, undoubtedly affect the outlook of most children and many adults.

*Forms:* plural: ureters

**urinary system**

n. kidneys, bladder and tubes

The urinary system helps excrete waste and regulate the blood.

*Forms:* plural: urinary systems

**urination**

n. the act of evacuating the bladder contents through the urethra

Prostate disease can affect urination. The very closeness of the anus to the external sexual parts might suggest connection while the penis, serving the dual purposes of sex and urination, and the similar contiguity of the ureter and vaginal opening, undoubtedly affect the outlook of most children and many adults.

*Forms:* plural: urinations

**urination problems**

n. difficulties with micturition

Caution is advised when using this drug in the elderly because they may be more sensitive its effects, especially urination problems, drowsiness, confusion, slow/shallow breathing, and low blood pressure.

*Forms:* only plural

**urine**

n. a solution of urea and salts in water that is formed by the kidneys

Urine is stored in the bladder.

*Forms:* no plural

**uses**

n. cases in which a specific medication should be applied

The major sources of ionizing radiation arising from human technological developments include medical uses of radiation, nuclear explosions, and power generation from nuclear fission.

*Forms:* only plural

**usual**

adv. common; something that occurs habitually

It is usual to work hard as a doctor.

**uterus**

n. abdominal organ where a baby develops before birth; the womb

The uterus sheds its lining every month in the menstrual cycle.

*Forms:* no plural

**uvula**

n. fleshy tissue at the back of the throat

The uvula is connected to the soft palate.

*Forms:* plural: uvulas

**vaccinate**

v. to give an injection that protects against an infectious disease

Children are vaccinated frequently in the West. Germany: Although a law exists requiring employers to vaccinate healthcare workers, healthcare employees of small private practices are most likely to be unprotected against hepatitis B infection as many employers are ignoring the law.

*Forms:* vaccinated; vaccinated; vaccinating

**vaccination**

n. act of making unsusceptible to disease by inoculating

Mass vaccination programs have been set up to protect public health. Smallpox vaccination was being used centuries before Edward Jenner, and many modern drugs (such as atropine, digitalis and reserpine) have been derived from folk remedies.

*Forms:* plural: vaccinations

**vaccine**

n. a substance used clinically for the immunization of a recipient against an infectious agent; immunogen that contains a suspension of weakened or dead pathogenic cells; it is injected in order to stimulate the production of antibodies

The first vaccine created was against smallpox. Even if the money and the knowledge were available to produce a vaccine for mass immunisation, public opinion could still determine whether genetically engineered viruses will treat HIV in the future.

*Forms:* plural: vaccines

**valency theory**

n. idea that explains chemical bonding as an effect of the outer shell electrons

The valency theory helps to explain all types of chemical bonding.

*Forms:* plural: valency theories

**vanadium**

n. transition metal in d-block of the periodic table with the chemical symbol

Vanadium forms complex ions as is typical of the transition metals.

*Forms:* plural: vanadiums

**vertex**

n. the highest point of the skull; the top of the head

In practice many laboratories use two electrodes on the scalp, one at the vertex (midway centrally between the bridge of the nose and the inion, or bony bump at the base of the cranium), and one frontally, about two centimetres behind the hairline.

*Forms:* plural: vertexes

**vision**

n. eyesight; the ability to see

The Snellen chart is used to test vision.

*Forms:* plural: visions

**vision problems**

n. eyesight difficulties

They caution, however, against a situation which can occur in the special school when the organisation of the entire curriculum is adapted to the vision problems of the students.

*Forms:* only plural

**vitamin A**

n. organic substance needed for skin and good eyesight

Vitamin A is a fat soluble vitamin. Improving the vitamin A intake of young children in populations where xerophthalmia exists, even at relatively low prevalence, should be a high priority for health and agricultural services in Africa and elsewhere.

*Forms:* no plural

**vitamin B complex**

n. series of organic substances; niacin; folic acid and pantothenic acid

Vitamin B complex is a water soluble vitamin.

*Forms:* no plural (vitamin B1, B2, B6, B12)

**vitamin C**

n. organic substance found in fruit and vegetables; important for skin

Deficiency of vitamin C causes scurvy. Vitamin C is found in green, leafy vegetables, potatoes, tomatoes, fruits and berries.

*Forms:* no plural

**vitamin D**

n. organic substance derived from steroids that is required for bone metabolism

Deficiency of vitamin D can cause rickets or osteoperosis.

*Forms:* no plural

**vitamin E**

n. tocopherol

Vitamin E is fat soluble.

*Forms:* no plural

**vitamin K**

n. organic substance needed for blood clotting

Vitamin K can be found in green vegetables and fish oils.

*Forms:* no plural

**vocal cord**

n. membranous folds in the larynx which vibrate when air passes through

The vocal cords produce sounds.

*Forms:* plural: vocal cords

**voice**

n. sounds made from the mouth as air passes through the larynx

Diseases of the larynx may affect the voice.

*Forms:* plural: voices

**vomit**

v. to spew; to be sick; to eject the stomach contents through the mouth; to throw up

Alcohol excess can make you vomit.

*Forms:* vomited; vomited; vomiting

**vomit**

n. the contents of the stomach that are brought up from the stomach

There was blood in his vomit. When you have an operation these days that's lasting anything more than just a couple of minutes or so, they will insert down your windpipe an endotracheal airway, which is a tube that goes down into your windpipe to seal into the windpipe, so if you vomit, for example, no vomit can down round that tube.

*Forms:* no plural

**warm-blooded**

adj. having a fairly constant body temperature

Mammals are warm-blooded.

**wart**

n. small skin growth common on the hands of children

Warts are contagious as they are caused by a virus.

*Forms:* plural: warts

**wavelength**

n. the distance between two successive peaks or troughs of a waveform

The different colors of light are identified by their different wavelengths.

*Forms:* plural: wavelengths

**weight**

n. heaviness of an object; the size of a force exerted on an object in a gravitational field

Weight gain occurs if the energy taken in exceeds the energy given out.

*Forms:* plural: weights

**wellbutrin**

n. antidepressant that helps balance neurotransmitters

Wellbutrin is a medication used to treat depression and belongs to the class known as atypical antidepressants.

*Forms:* no plural

**white matter**

n. nerve tissue of the central nervous system that is pale in comparison to the gray matter because it contains more nerve fibers

Most of the cerebrum is made of white matter.

*Forms:* no plural

**womb**

n. abdominal organ where the baby develops before birth; uterus

Hysterectomy is an operation where the womb is removed.

*Forms:* plural: wombs

**worsen**

v. to deteriorate

Both the trade and budget deficits continued to worsen, while an energy crisis caused by the failure to generate enough electricity and the non-payment of debt for oil to Venezuela, hampered production.

*Forms:* worsened; worsened; worsening

**wrist**

n. the joint connecting the hand to the arm

The wrist bones are known as the carpal bones.

**X-linked disease**

n. characteristic that is controlled by a gene carried on the X chromosome

Hemophilia is an X-linked disease.

*Forms:* plural: X linked diseases

**xylem**

n. the tissue in plants which transports water and salts

Water travels from the plant roots to the leaves up the xylem.

*Forms:* no plural

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**yeast**

n. barm

Yeast is reproduced by budding. Yeast is made up of millions of tiny fungus cells which literally go berserk when confronted by a liquid rich with sugars.

*Forms:* no plural

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**zinc**

n. a metal showing few properties of the transition metals

Zinc is used to coat iron to stop it rusting.

*Forms:* no plural

**zygote**

n. the fertilized ovum (before it is cleaved)

When the sperm fertilizes the ovum a zygote is formed.

*Forms:* plural: zygotes

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