The ever-expanding nursing vocabulary requires students and nurses to possess an up-to-date and working knowledge of contemporary healthcare terminology. The Australian Nurses' Dictionary fifth edition has been thoroughly revised and updated to take account of recent developments in nursing and midwifery practice and features the most current guidelines, terminology, policies and procedures. Succinct definitions are supported by phonetic pronunciations, clinically focused diagrams and valuable cross referencing. This popular, pocket-sized dictionary continues to provide students and practicing nurses with a reliable ready-reference for all their nursing needs.

NEW TO THIS EDITION
• Available in eBook
• New entries across a range of specialist areas
• A pronunciation guide
• Relevant, clinically focused diagrams
• 14 appendices including:
  — 2010 ARC Resuscitation guidelines
  — Code of Ethics and Code of Professional Conduct for Nurses in Australia
  — National Registration for Nurses and Midwives

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Australian Nurses’ Dictionary
6th edition
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Preface

This 6th edition of the Australian Nurses’ Dictionary brings a thoroughly revised and updated text that takes account of recent developments in nursing and midwifery practice. The dictionary, first adapted from the Baillière’s Nurses’ Dictionary in 1991, continues to provide comprehensive coverage of the ever-expanding vocabulary of the nursing and midwifery professions to reflect advances in practice, technology, research and innovation. This edition has been expanded to include new, relevant terminologies, several appendices relevant to clinical practice and an abridged version of the atlas of human anatomy. Students in particular need extra assistance when learning the numerous structures that make up the body systems. We trust you will agree that the addition of the atlas makes it an ideal visual display and easy reference for learning body systems.

The guiding principles in the revision have been to establish direct relevance to Australian conditions, and to provide a quick reference source for students and nurses in the clinical setting. For a more extensive background to specific entries, the reader is referred to encyclopaedic nursing dictionaries, and to pharmacology, anatomy and physiology texts. In a dictionary of this size, it is impossible to include every generic and brand name of drugs in common use; therefore, in this edition only the class of drug (e.g. antibiotic, diuretic and steroid) have been included.

This edition has relied on the support of nurses and allied health personnel in many areas. In particular, we would like to thank our contributors Professor Andrea Marshall and Anne Louise Elsom for their continued support in the revisions of the appendices. Thank you to the reviewers of the 5th edition, who provided valuable recommendations for this 6th edition; thank you also to the reviewers of the 6th edition; and to Tony Smith and John Hawley for their continued encouragement and support in meeting deadlines.

Jennie King, Rhonda Hawley
Acknowledgment

The publisher would like to thank the American College of Surgeons for their kind permission to reproduce the figure in the Lund and Browder chart.

References


### Pronunciation guide

All pronunciations in this dictionary are transcribed using ordinary English-spelling letters, with the exception of the upside-down ‘e’ or ‘schwa’ (ə). All pronunciations are given in parentheses immediately following the bold headword and reflect general Australian English in current, spoken usage. Where alternative pronunciations for a word are given, or where alternative spellings or synonyms are given, these are separated by commas. For example:

- **medicine** (ˈmedəsən, ˌmedsən)
- **nerone** (neuron) (ˌnyoo-ron, ˌnyoo-ron)

Alternative pronunciations are often given in truncated form with hyphens. For example:

- **encephalic** (ˈenkəˌfalik, -ˌensə)

Single letters represent single sounds. Where two or more characters are combined, as in the lists below, these also represent precise sounds.

#### Vowel sounds

<table>
<thead>
<tr>
<th>Letter</th>
<th>Pronunciation</th>
<th>Examples</th>
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</thead>
<tbody>
<tr>
<td>a</td>
<td>as in bad (bad)</td>
<td>o as in body (ˈbodee)</td>
</tr>
<tr>
<td>ah</td>
<td>as in father (ˈfathə)</td>
<td>oh as in choke (chohk)</td>
</tr>
<tr>
<td>air</td>
<td>as in hair (hair)</td>
<td>oo as in boot (boot)</td>
</tr>
<tr>
<td>aw</td>
<td>as in water (ˈwawtə)</td>
<td>oo as in cure (ˌkyooə)</td>
</tr>
<tr>
<td>ay</td>
<td>as in fatal (ˈfætəl)</td>
<td>ow as in now (now)</td>
</tr>
<tr>
<td>e</td>
<td>as in bed (bed)</td>
<td>ow as in hour (ˈowə)</td>
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<tr>
<td>ee</td>
<td>as in fetus (ˈfetəs)</td>
<td>oy as in goitre (ˈgoitə)</td>
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<tr>
<td>i</td>
<td>as in film (film)</td>
<td>oyə as in soya (ˈsoyə)</td>
</tr>
<tr>
<td>ie</td>
<td>as in bite (biet)</td>
<td>u as in tongue (tung)</td>
</tr>
<tr>
<td>iə</td>
<td>as in chloropsia (klawˈrɔpsɨə)</td>
<td>uh as in foot (fuht)</td>
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<tr>
<td>iə̆</td>
<td>as in fear (fiə)</td>
<td>ə as in mother (ˈmudhə)</td>
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<tr>
<td>iə̆̆</td>
<td>as in diet (ˈdiət)</td>
<td>ər as in bird (ˈbərd)</td>
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<tr>
<td>y</td>
<td>as in yet (yet)</td>
<td>y as in yet (yet)</td>
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#### Consonant sounds

<table>
<thead>
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<th>Letter</th>
<th>Pronunciation</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>b</td>
<td>as in baby (ˈbaybee)</td>
<td>nh as in en passant (ˌenˈpəsən)</td>
</tr>
<tr>
<td>ch</td>
<td>as in chat (chaht)</td>
<td>ny as in nutrition (ˌnyooˈtrishən)</td>
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<tr>
<td>d</td>
<td>as in digit (ˈdijət)</td>
<td>p as in pelvis (ˈpelvəs)</td>
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<tr>
<td>f</td>
<td>as in fever (ˈfevər)</td>
<td>r as in rod (rod)</td>
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<td>g</td>
<td>as in gag (gag)</td>
<td>s as in sac (sak)</td>
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<td>h</td>
<td>as in heal (heel)</td>
<td>sh as in fish (fish)</td>
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<td>j</td>
<td>as in jump (jump)</td>
<td>t as in test (test)</td>
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<td>k</td>
<td>as in king (king)</td>
<td>th as in thirst (ˈθərst)</td>
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<td>l</td>
<td>as in light (liet)</td>
<td>v as in vein (ˈvein)</td>
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<td>m</td>
<td>as in man (man)</td>
<td>w as in weight (ˈweiht)</td>
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<tr>
<td>n</td>
<td>as in need (need)</td>
<td>z as in zero (ˈziəˌrəh)</td>
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<tr>
<td>ng</td>
<td>as in sung (sung)</td>
<td>zh as in pleasure (ˈplezə)</td>
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</tbody>
</table>
Stress marks

Stress marks are used where the word or term has more than one syllable. The stress mark is placed before the syllable to be stressed. The primary stressed syllable is indicated by a superior stress mark (‘) and secondary stress by a subscript stress mark (,). For example:

respiration (ˌrespəˈreɪʃən)
respirator (ˌrespəˈreɪtər)
respiratory (rəsˈpɪrətər)

Apostrophe

Where a consonant is preceded by an apostrophe, this indicates that the consonant should be pronounced as a separate syllable. For example:

hospital (ˈhɒspɪtəl)

Centred full stop

Where two letters occur together that may be mistaken for a different sound from that intended, a centred full stop is added to separate the characters. For example:

myopia (mɪˈɒpjə)

Sub-entries

Sub-entries are listed alphabetically under the main entry, with the initial letter(s) of the main entry repeated. For example:

abdomen
  Acute a.
  Pendulous a.
  Scaphoid (navicular) a.
GROSS ANATOMY OF THE SPINAL CORD

- Cervical vertebrae
  - C1
  - C2
  - C3
  - C4
  - C5
  - C6
  - C7
  - C8

- Thoracic vertebrae
  - T1
  - T2
  - T3
  - T4
  - T5
  - T6
  - T7
  - T8
  - T9
  - T10
  - T11
  - T12

- Lumbar vertebrae
  - L1
  - L2
  - L3
  - L4
  - L5

- Sacrum
- Coccyx

- Cervical nerves
- Thoracic nerves
- Lumbar nerves
- Sacral nerves
- Cauda equina
- Filum terminale
- Brachial plexus
- Thoracic plexus
- Lumbar plexus
- Sacral plexus
- Cervical plexus
- Coccygeal nerve

- Dura mater
A abbreviation for accommodation; adenine; anode (anodal); anterior; axial; symbol for ampere and mass number.

abatement (əˈbaymtənt) a decrease in the severity of a pain or a symptom.

abdomen (ˈabdomən, ˈabˈdoh-) the cavity between the diaphragm and the pelvis, lined by a serous membrane, the peritoneum, and containing the stomach, intestines, liver, gallbladder, spleen, pancreas, kidneys, suprarenal glands, ureters and bladder. For descriptive purposes, its area can be divided into nine regions (see figure). Acute a. any abdominal condition urgently requiring treatment, usually surgical. Pendulous a. a condition in which the anterior part of the abdominal wall hangs down over the PUBIS. Scaphoid (navicular) a. a hollowing of the anterior wall commonly seen in grossly emaciated people.

abdominal (abˈdomənl) pertaining to the abdomen. A. aneurysm a dilatation of the abdominal aorta. A. aorta that part of the aorta below the diaphragm. A. breathing deep breathing; HYPERPNOEA. A. examination a systematic physical assessment of the abdomen by visual inspection and the use of palpation, percussion and auscultation. The purpose is to identify abnormalities, if any, based on any change in size, shape, consistency, or sound on percussion of the organs found therein. During pregnancy, the purpose is to determine the equality of uterine size with the calculated period of gestation and later in the pregnancy to determine the position of the fetus. Postnatally, the examination is used to ascertain that the uterus is regaining its former non-pregnant size and position. A. reflex reflex contraction of abdominal wall muscles observed when skin is lightly stroked. A. section incision through the abdominal wall. A. thrust formerly called the Heimlich
ABDOMINOCYESIS

manoeuvre an emergency procedure for dislodging a bolus of food or a foreign object from the trachea to prevent asphyxiation. Abdominal thrusts may be effective in clearing the airway but have also been associated with complications so are not routinely recommended.

abdominocyesis (ab domənoh-'sie'eesəs) an abdominal pregnancy.

abdominopelvic (ab domənoh'pel-vik) concerning the abdomen and the pelvic cavity.

abdominoperineal (ab domənoh-'per-i'nēeal) pertaining to the abdomen and the perineum. A. excision an operation performed through the abdomen and the perineum for the excision of the rectum or bladder. Often done as a synchronised operation by two surgeons, one working at each approach.

abduce (ab'dyooz) to abduct or to draw away.

abducent (ab'dyoozənt) leading away from the midline. A. muscle the external rectus muscle of the eye, which rotates it outward. A. nerve the cranial nerve that supplies this muscle.

abductor (ab'dukto) a muscle that draws a limb away from the midline of the body. The opposite of ADDUCTOR.

aberrant (ab'erant) taking an unusual course. Used of blood vessels and nerves.

aberration (ab rayshən) deviation from the normal. In optics, failure to focus rays of light. Mental a. mental disorder of an unspecified kind.

ability (əbil'ətee) the power to perform an act, either mental or physical, with or without training. A. test a test that measures a person’s level of performance or estimates future performance. Sometimes also known as an intelligence test, achievement test or aptitude test. Innate a. the ability with which a person is born.

ablation (ab'layshən) the removal or destruction, by surgical or radiological means, of neoplasms or other body tissue.

abnormal ('əb'nawm') varying from what is regular or usual.

ABO system see BLOOD GROUPS.

abort (ə'baft) 1. to terminate a process or disease before it has run its normal course. 2. to remove or expel from the womb an embryo or fetus before it is capable of independent existence.

abortifacient (ə bawt'i'fayshənt) an agent or drug that may induce abortion.

abortion (ə'bawshən) 1. premature cessation of a normal process. 2. expulsion from the uterus of the products of conception before the fetus is viable. 3. the product of such an abortion. Complete a. one in which the contents of the uterus are expelled intact. Criminal a. the termination of a pregnancy for reasons other than those permitted by law (i.e. danger to mental or physical health of mother or child or family) and without medical approval. Incomplete a. one in which some part of the fetus or placenta is retained in the uterus. Induced a. the intentional emptying of the uterus. Inevitable a. abortion where bleeding is profuse and accompanied by pains, the cervix is dilated and the contents of the uterus can be felt. Missed a. one where all signs of pregnancy disappear and later the uterus discharges a blood clot surrounding a shrivelled fetus, i.e. a CARNEOUS MOLE. Septic a.
abortion associated with infection. Therapeutic (legal) a. one induced on medical advice because the continuance of the pregnancy would involve risk to the life of the pregnant woman, or injury to the physical or mental health of the pregnant woman or any existing children of her family, greater than if the pregnancy were terminated; or because there is a substantial risk that if the child were born it would suffer from such physical or mental abnormalities as to be seriously handicapped. Threatened a. the appearance of signs of premature expulsion of the fetus; bleeding is slight, the cervix is closed. Tubal a. the termination of a tubal pregnancy caused by rupture of the uterine tube.

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Accessory

in the fetal heartbeat of at least 15 beats per minute over the baseline rate for at least 15 seconds.

**accessory** (ak’sesari, ‘ək-) supplementary. A. nerve the 11th cranial nerve. It is made up of two portions: the cranial and the spinal.

**accident and emergency** (‘ək see-dant and ə’marjansee) sometimes referred to as casualty or trauma medicine. A setting for dealing with problems which require immediate attention and where patients may be directed or referred by a general practitioner or the emergency services.

**accident form** (‘ək see-dant _fawm_) a form also known as an incident form which provides a record of any accident to any person occurring in a healthcare premise. Employers require that the form is completed as soon after the accident as possible.

**accommodation** (ə kəmə’dəshən) adjustment. In ophthalmology, the term refers specifically to adjustment of the ciliary muscle, which controls the shape of the lens. Negative a. the ciliary muscle relaxes and the lens becomes less convex, giving long distance vision. Positive a. the ciliary muscle contracts and the lens becomes more convex, giving near vision.

**accountable** (ə’kəntə’bəl) liable to be held responsible for a course of action. A qualified nurse has a duty of care according to law; in nursing, being accountable refers to the responsibility the qualified nurse takes for prescribing and initiating nursing care. Nurses are accountable to their patients, their peers and their employing authority, according to professional codes of conduct. (See Appendix 8.)

**accreditation** (ə kredə’tayshən) 1. to give someone official status within an organisation, e.g. an approved and acknowledged representative of a union or professional organisation. 2. the official system used in some countries for the licensing of a hospital or healthcare facility by government agencies which meet agreed standards following initial assessment and regular appraisal that they meet a satisfactory level of organisational achievement. A. for Prior Learning (APL) a system used by academic institutions and other establishments to grant credit for previous academic achievements. Usually used to gain credit transfer between institutions leading to academic qualifications.

**accretion** (ə’krestən) growth. The accumulation of deposits (e.g. of salts) to form a calculus in the bladder. In dentistry, the growth of tartar on the teeth.

**acculturation** (ə’kolchə’rayshan) the process by which a person absorbs the beliefs, values and customs of another culture, usually through direct contact, e.g. migrants resident in another country.

**ACE inhibitors** (ays in’ibətəz) a group of drugs used in the treatment of hypertension. The name ‘angiotensin-converting enzyme (ACE) inhibitors’ explains part of their mode of action, although it is thought that some of their other actions may also be important in reducing blood pressure.

**acet-** (‘asət-) combining form denoting acid. From the Latin *acetum*, vinegar.

**acetabuloplasty** (ə’sətəbələʊ-ˌplas-tee) an operation performed to improve the depth and shape of the hip socket in correcting congenital dislocation of the hip or in treating osteoarthritis of the hip (see figure, p. 5).
acetonuria (ˌasəˈnyoo-ri-ə, ə ˈsee-) the presence of an excess quantity of acetone bodies in the urine, giving it a peculiar sweet smell.

acetylcholine (ˌasəˈtielˈkohleen, ˌasitil-) a chemical transmitter that is released by some nerve endings at the synapse between one neuron and the next or between a nerve ending and the effector organ it supplies. These nerves are said to be cholinergic, e.g. the parasympathetic nerves and the lower motor neurones to skeletal muscles. Acetylcholine is rapidly destroyed in the body by cholinesterase (an enzyme).

acetylcholinesterase (ˌasəˈtielˌkohləˈnestəˌrayz) an enzyme that reduces or prevents excessive firing of neurons at neuromuscular junctions.

acetylcoenzyme A (ˌasəˈtielˌkoenzimˌasəˈtəl-) the active form of acetic acid, to which carbohydrates, fats and amino acids that are not needed for protein synthesis are converted.

achalasia (akəˈlayzi-) failure of the relaxation of a muscle sphincter,
causing dilatation of the part above, e.g. of the oesophagus above the cardiac sphincter (see figure, p. 5).

ache (ayk) a dull, continuous pain.

Achilles (əˈkiːləs) Greek mythological hero who could be wounded only in the heel. A. tendon tendocalcaneus, connecting the soleus and gastrocnemius muscles of the calf to the heel bone (os calcis). Tapping the Achilles tendon normally produces the Achilles reflex or ankle jerk.

achlorhydria (ˌayklorˈhiedri-a) the absence of free hydrochloric acid in the stomach. May be found in pernicious anaemia, pellagra and gastric cancer.

acholia (ay-ˈkohli-ə) a lack of secretion of bile.

acholuria (ˌaykəˈljuərē-ə) a deficiency or lack of bile in the urine.

acholuric (ˌaykəˈljuərīk) pertaining to ACHOLURIA. A. jaundice jaundice without bile in the urine.

achondroplasia (əˌkondrohˈpləz-ə) an inherited condition in which there is early union of the epiphysis and diaphysis of long bones. Growth is arrested, resulting in short stature.

achromasia (ˌaykrəˈməsə-ə) 1. lack of colour in the skin. 2. absence of normal reaction to staining in a tissue or cell.

achromatopsia (ˌaykrəˈmətəpsə-ə) complete colour blindness caused by disease or trauma. It may be congenital.

achyliia (əˈkiːliə-ə) an absence of hydrochloric acid and enzymes in the gastric secretions. A. gastrica a condition in which gastric secretion is reduced or absent.

acid (ˈasəd) 1. sour or sharp in taste. 2. a substance which, when combined with an alkali, will form a salt. Any acid substance will turn blue litmus paper red. Individual acids are given under their specific names A.–alcohol-fast descriptive of stained bacteria that are resistant to decolourisation by both acid and alcohol. A.–base balance the normal ratio between the acid ions and the basic (or alkaline) ions required to maintain the pH of the blood and body fluids. Most of the body’s metabolic processes produce acids as their end-products, but a somewhat alkaline body fluid is required as a medium for vital cellular activities. Therefore, chemical exchanges of hydrogen ions must take place continuously in order to maintain a state of equilibrium. An optimal pH (hydrogen ion concentration) between 7.35 and 7.45 must be maintained; otherwise, the enzyme systems and other biochemical and metabolic activities will not function normally.

acidaemia (ˌasəˈdēmē-ə) abnormal acidity of the blood which contains an excess of hydrogen ions, in which the pH of the blood falls below 7.35.

acidity (əˈsidətē) 1. sourness or sharpness of taste. 2. the state of being acid.

acidosis (ˌasəˈdōsəs) a pathological condition resulting from accumulation of acid or depletion of the alkaline reserve (bicarbonate content) in the blood and body tissues, and characterised by increase in hydrogen ion concentration (decrease in pH to below 7.30). Metabolic a. acidosis resulting from accumulation in the blood of ketoacids (derived from fat metabolism) at the expense of bicarbonate, thus diminishing the
body’s ability to neutralise acids. Occurs in diabetic ketoacidosis, lactic acidosis and failure of renal tubules to reabsorb bicarbonate. 

Respiratory a. acidosis resulting from ventilatory impairment and subsequent retention of carbon dioxide. Carbon dioxide accumulates in the blood and unites with water to form carbonic acid, thus reducing plasma pH. The condition can be acute with a sudden onset, or it can develop gradually as lung function deteriorates. See also KETOSIS.

acidotic (ˌa.ˈsə.dotik) 1. pertaining to acidosis. 2. a person suffering from acidosis.

acinus (ˈa.ˈsənas) a minute saccule or alveolus of a compound gland, lined by secreting cells. The secreting portion of the mammary gland consists of acini.

acme (ˈa.ˈkmee) 1. the peak or highest point, e.g. the peak of intensity of a uterine contraction during labour. 2. the crisis of a fever when the symptoms are fully developed.

acne (ˈa.ˈknə) an inflammatory condition of the sebaceous glands in which blackheads (comedones) are usually present together with papules and pustules. A. keratitis inflammation of the cornea associated with acne rosacea. A. rosacea a redness of the forehead, nose and cheeks due to chronic dilatation of the subcutaneous capillaries, which becomes permanent with the formation of pustules in the affected areas. A. vulgaris a form of acne that occurs commonly in adolescents and young adults, affecting the face, chest and back.

acneiform (akˈnəˌfərm) resembling acne.

acousma (əˈkoosma) the hearing of imaginary sounds.

acoustic (əˈkoostik) relating to sound or the sense of hearing.

acquired (əˈkwieəd) pertaining to disease, habits or immunity developed after birth; not inherited.

acquired immune deficiency syndrome see AIDS.

acrocephalia (ˌakrohkeˈfəli-əˌse-) malformation of the head, in which the top is pointed.

acromegaly (ˌakrohˈmēɡəli) a chronic condition producing gradual enlargement of the hands, feet and bones of the head and chest. Associated with overactivity of the anterior lobe of the pituitary gland in adults.

acromioclavicular (əˌˈkrohmiohˌˈkləˈvikələ) pertaining to the joint between the acromion process of the scapula and the lateral aspect of the clavicle.

acromion (əˈkrohmi-ən) the outward projection of the spine of the scapula, forming the point of the shoulder.

acroosteolysis (əˌˈkrohˌˈostēˌˈliˌsəs) an occupational disease that affects people working with polyvinylchloride (PVC) plastics.

acroparaesthesia (ˌakrohˌˈparəˈˌθiəzə-) a condition in which pressure on the nerves of the brachial plexus causes numbness, pain and tingling of the hand and forearm.

acrophobia (ˌakrohˌˈfohbi-ə) a morbid terror of being at a height.

acrosclerosis (ˌakrohskləˈrohskəs) a type of SCLERODERMA that affects the hands, feet, face or chest.

acrosome (ˌakˈrəˌsohm) part of the head of a spermatozoon containing enzymes that break down the cell membrane of the ovum and allow penetration.

ACTH adrenocorticotropic hormone; corticotrophin.
actigraph (ˈaktəˌgraf) an instrument that records changes in the activity of an organism and produces a graphic record of the process.

actin (ˈaktən) the protein of myofibrils responsible for contraction and relaxation of muscles.

actinodermatitis (ˌaktənˌdərməˈtietəs) inflammation of the skin due to the action of ultraviolet or X-rays.

Actinomyces (ˈaktənˌmieseez) a genus of branching, spore-forming, vegetable parasites which may give rise to actinomycosis and from which many antibiotic drugs are produced, e.g. streptomycin.

actinomycosis (ˌaktənˌhəmˈkəlsəs) a chronic infective disease of cattle that is also found in humans. Granulated tumours occur, chiefly in the lung and jaw, and more rarely in the intestines.

actinotherapy (ˌaktənˌθəˈrəpee) the use of ultraviolet, other parts of the spectrum of the sun’s rays, or X-rays to treat various disorders, particularly skin diseases.

action (ˈakshan) the accomplishment of an effect, whether mechanical or chemical, or the effect so produced.

A. research a method of undertaking social research that incorporates the researcher’s involvement as a direct and deliberate part of the research process, i.e. the researcher acts as a change agent. Cumulative a. the sudden and markedly increased action of a drug after administration of several doses. Reflex a. an involuntary response to a stimulus conveyed to the nervous system and reflected to the periphery, passing below the level of consciousness (see also reflex).

activator (ˌakˈtəˌvətə) a substance, hormone or enzyme that stimulates a chemical change, although it may not take part in the change. In chemistry, a catalyst. For example, yeast is the activator in the process by which sugar is converted into alcohol; the digestive secretions are activated by hormones to carry out normal digestion.

active (ˈaktiv) causing change; energetic. A. immunity an immunity in which individuals have been stimulated to produce their own antibodies.

A. labour the normal progress of the birth process, including uterine contractions, dilation of the cervix to at least 3–4 cm, and the descent of the fetus into the birth canal. A. listening the act of alert, intentional hearing and demonstration of an interest in what a person has to say through verbal signs, non-verbal gestures and body language. A. movements movements made by the patient, as distinct from passive movements. A. principle the ingredient in a drug that is primarily responsible for its therapeutic action. A. transport the movement of ions or molecules across the cell membranes and epithelial layers, usually against a concentration gradient, resulting directly from the expenditure of metabolic energy. Under normal circumstances more potassium ions are present within the cell and more sodium ions extracellularly. The process of maintaining these normal differences in electrolytic composition between the intracellular fluids is active transport. The process differs from simple diffusion or osmosis in that it requires the expenditure of metabolic energy.

activities of daily living (ADL) (akˈtivətiz əvˈdæl iˈlivəŋ) those activities usually performed in the course of a person’s normal
daily self-care routine, such as eating, cleaning teeth, washing and dressing. Assessing a person’s ability to perform ADLs is part of a nursing health assessment.

**activities of living (AL)**, those activities which meet the physical, psychological and social needs of the individual, e.g. eating, elimination, communication, breathing, expressing sexuality, working, play, etc.

**activity theory** describes a psychosocial process whereby ageing people disengage from some activities of their earlier life and replace these with other hobbies and pastimes, according to their changing physical abilities and economic situation.

**activity tolerance** the amount of physical activity tolerated by a patient. It may be assessed in patients with cardiac or chronic respiratory disease. Graded exercise, including walking, cycling and going up and down stairs, may be used to rebuild confidence during the convalescent phase after any serious illness or injury as an important part of any rehabilitation program.

**acuity** sharpness. *A. of hearing* an acute perception of sound. *A. of vision* clear focusing ability.

**acupressure** a system of complementary medicine in which pressure is applied to various points on the body with the aim of stimulating the innate self-healing capacity of the individual. See ACUPUNCTURE, SHIATSU.

**acupuncture** a Chinese medical system which aims to diagnose illness and promote health by stimulating the body’s self-healing powers. The insertion of special needles into specific points along the ‘meridians’ of the body is used for the production of anaesthesia, the relief of pain and the treatment of certain conditions.

**acute** a term applied to a disease or illness in which the attack is sudden, severe and of short duration.

**acute physiology and chronic health evaluation** see APACHE.

**acute respiratory distress syndrome (ARDS)** a severe form of acute lung function failure which occurs after an event such as trauma, inhalation of a toxic substance or septic shock. There is severe breathlessness and a dangerous reduction in the supply of oxygen to the blood.

**acute stress disorder** an anxiety disorder that is usually transient which occurs within 4 weeks following exposure or involvement to a traumatic event. The staff of the emergency services may be affected, e.g. following a major road traffic incident.

**acyclic** occurring independently of a natural cycle of events such as the menstrual cycle.

**adactylia** congenital absence of fingers or toes.

**Adam’s apple** the laryngeal prominence, a protrusion of the front of the neck formed by the thyroid cartilage.

**adamantine** pertaining to the enamel of the teeth.

**adaptation** 1. the process of modification that a living organism undergoes when adjusting itself to new surroundings or circumstances. 2. a function of the stimulus to which the
individual is exposed and of the individual’s adaptation to the situation. The adaptation response may relate to physiological needs, role, ‘self’ concept and interdependence. 3. the process of overcoming difficulties and adjusting to changing circumstances. Neuroses and psychoses are often associated with failure of adaptation. 4. used in ophthalmology to mean the adjustment of visual function according to the ambient illumination. Colour a. 1. changes in visual perception of colour with prolonged stimulation. 2. adjustment of vision to degree of brightness or colour tone of illumination. Dark a. adaptation of the eye to vision in reduced illumination. Light a. adaptation of the eye to vision in bright illumination (photopia), with reduction in the concentration of the photosensitive pigments of the eye.

addict (ˈadikt) a person exhibiting ADDICTION.

addiction (əˈdikshən) 1. the taking of drugs or alcohol leading to physiological and psychological dependence with a tendency to increase use. 2. the state of being devoted to a particular activity or interest, e.g. gambling, exercise or computer games to the exclusion of the normal activities of daily living. See DEPENDENCE and DRUG ADDICTION.


Addison’s disease (ˈadi ˌsanz diˈzeez) deficiency disease caused by inadequate secretion of hormones by the adrenal cortex; characterised by progressive anaemia, low blood pressure, weakness, and bronze pigmentation of the skin.

Addisonian crisis (ˈadiˌsəniˌən ˈkrıəsəs) see adrenal crisis.

additives (ˈadə tivz) substances added to improve, enhance or preserve something. Food a. used in the food industry to preserve and make the food look more attractive; these are given serial numbers, e.g. E102 (tartrazine), E476 (soya lecithin). Some additives may produce an allergic reaction in some people, and a few are thought to be implicated in behavioural problems in children.

adducent (əˈdɪkJənt) leading towards the midline. A. muscle the medial rectus muscle of the eye, which turns it inwards.

adductor (əˈdʌktə) a muscle that draws a limb towards the midline of the body. The opposite of ABDUCTOR.

adenine (ˈadənən) one of the purine bases found in DNA.

adenitis (ˌadəˈnətəs) inflammation of a gland.

adenohypophysis (ˌadənoʊˈhaɪpəˈfɪsəs) the anterior lobe of the pituitary gland.

adenoid (ˌadəˈnoید) resembling a gland. Generally applied to abnormal lymphoid growth in the nasopharynx blocking the eustachian tubes, leading to recurrent respiratory infection and deafness (see figure, p. 11).

adenoidectomy (ˌadəˈnoɪdətəmee) the surgical removal of adenoid tissue from the nasopharynx.

adenoma (ˌadəˈnoʊmə) a non-malignant tumour of glandular tissue.

adenomyoma (ˌadənəˈməʊmə) an innocent new growth involving both endometrium and muscle tissue; found in the uterus or uterine ligaments.
between organs. A possible cause of intestinal obstruction.

**adipose** (ˈaˌdipəs,-z) of the nature of fat. Fatty.

**adiposity** (ˌaˌdipəsətē) the state of being too fat. Obesity.

**aditus** (ˈaˈdətəs) an opening or passageway; often applied to that between the middle ear and the mastoid antrum.

**adjustment** (əˈjustmənt) in psychology, the ability of a person to adapt to changing circumstances or environment.

**adjuvant** (ˈaˈjəvant) 1. any treatment used in conjunction with another to enhance its efficacy. 2. a substance administered with a drug to enhance its effect.

**ADL** see **ACTIVITIES OF DAILY LIVING**.

**Adler's theory** (ˈaˌdələzˌthiərē) A. Adler, Austrian psychiatrist, 1870–1937. The theory that neuroses develop as a compensation for feelings of inferiority, either social or physical.

**adolescence** (ˌaˌdəˈlesəns) the period between puberty and maturity. In the male, 14–25 years. In the female, 12–21 years.

**adopt** (əˈdəpt) 1. to take a person, especially another’s child, into a legal relationship as one’s own. 2. to choose to follow a course of action.

**adoption** (əˈdəpʃən) the legal procedure by which a child is transferred from his or her birth parents to adopting parents.

**adrenal** (əˈdrenəl) 1. near the kidneys. 2. a triangular endocrine gland situated above each kidney. *A. cortex* the outer and greater portion of the adrenal gland. *A. crisis* an acute life-threatening state of profound adrenocortical insufficiency requiring immediate therapy. Also called **ADDISONIAN CRISIS**.
adrenalectomy (ə’dreňəlɛktəmɪ) surgical excision of an adrenal gland.

adrenaline (ə’drenəlɪn) a hormone secreted by the medulla of the adrenal gland. Has an action similar to normal stimulation of the sympathetic nervous system: (a) causing dilatation of the bronchioles; (b) raising the blood pressure by constriction of surface vessels and stimulation of the cardiac output; and (c) releasing glycogen from the liver. It is therefore used to treat such conditions as asthma, collapse and hypoglycaemia. It acts as a haemostat in local anaesthetics.

adrenergic (ə’drənər'jɪk) pertaining to nerves that release the chemical transmitter noradrenaline in order to stimulate the muscles and glands they supply.

adrenocortical (ə’drenəkɔrtɪ̆kəl) pertaining to the adrenal cortex.

adrenocorticotropic hormone (ACTH) secreted by the anterior lobe of the pituitary body. Stimulates the adrenal cortex to produce cortisol. See CORTICOTROPHIN.

adrenogenital (ə’drenə’jenət'əl) relating to both the adrenal glands and the gonads. A. syndrome a condition of masculinisation caused by overactivity of the adrenal cortex resulting in precocious puberty in the male infant and masculinisation in the female. Both sexes are liable to Addisonian crises.

adrenolytic (ə’drenəlɪtɪk) a drug that inhibits the stimulation of the sympathetic nerves and the activity of adrenaline.

adsorbent (ə’dsərbənt, -’zawb-) a substance that has the power of attracting gas or fluid to itself, e.g. charcoal.

adsorption (ə’dsərpʃən, -’zavr-) the power of certain substances to attach gases or other substances in solution to their surface and so concentrate them there. This is made use of in chromatography.

adult (ə’dʌlt, ’adult) mature. A mature person.

adulteration (ə’dʌltərəˈneɪʃən) addition of an impure, cheap or unnecessary ingredient to cheat with, cheapen or falsify a preparation.

advance care directive or statement (ə’dvəns kɛə dɪˈstrɪktɪv ə’steɪmt) a written declaration made by a mentally competent person that sets out their wishes with regard to life-prolonging medical interventions if they are incapacitated by an irreversible disease or are terminally ill and prevented from making their wishes known to health professionals at the time. Also referred to as advance health directive or LIVING WILL.

advanced life support (ALS) (ə’dvənst ˈlɪf, ˈsɔpəwt) resuscitation techniques used during a cardiac arrest that follows on from basic life support. They include defibrillation and the administration of appropriate drugs. Paediatric advanced life support (PALS) is a structured and algorithmic method of life support for children with severe medical emergencies.

advanced trauma life support (ATLS) (ə’dvənst trɔmə ˈlɪf, ˈsɔpəwt) a set of protocols recommended for use by doctors and paramedics when dealing with seriously injured people at the scene of an accident. The immediate treatment of shock from reduced
blood volume by the infusion of fluids is an integral component of the life support regimen.

**advancement** (ədˈvənsmənt, ədˈvans-) in surgery, an operation to detach a tendon or muscle and reattach it further forward. Used in the treatment of STRABISMUS and plastic surgery.

**adventitia** (ədˈvəntishə, -ˈtishə) the outer coat of an artery or vein.

**advocacy** (ədˈvəkəsee) the process whereby a nurse provides a patient and/or the patient’s family with information to enable them to make informed decisions relating to the care situation. The nurse is then able to support the patient’s decision vis-à-vis other professionals and also to incorporate the informed decisions into care planning.

**aeration** (airˈreʃən) supplying with air. Used to describe the oxygenation of blood, which takes place in the lungs.

**aerobe** (ˈair-rohb) an organism that can live and thrive only in the presence of oxygen.

**aerobic exercise** (airˈəhbi kˈeksə siə) physical exercises for which the degree of effort is such that it can be maintained for long periods without undue breathlessness. The aim of this form of exercising is to increase the effectiveness of the heart and lungs and the supply of oxygen to the tissues of the body.

**aeropathy** (airˈrəpəthē) any illness caused by a change in atmospheric pressure, e.g. DECOMPRESSION SICKNESS.

**aerophagy** (airˈrofajē) the excessive swallowing of air.

**aerosol** (ˈair-rəsəl) finely divided particles or droplets. A. sprays used in medicine to humidify air or oxygen, or for the administration of drugs by inhalation.

**aetiology** (ˌeitiˈəlējē) the science of the causes of disease.

**afebrile** (əˈfēbrəl) without fever.

**affect** (əˈfekt) in psychiatry, the feeling experienced in connection with an emotion or mood.

**affection** (əˈfekshən) 1. a morbid condition or disease state. 2. a warm feeling for someone or something.

**affective** (əˈfektiv) pertaining to the emotions or moods.

**A. psychoses** major mental disorders in which there is grave disturbance of the emotions.

**afferent** (əˈfərənt) conveying towards the centre. A. nerves the sensory nerve fibres that convey impulses from the periphery towards the brain. A. paths or tracts the course of the sensory nerves up the spinal cord and through the brain. A. vessels arterioles entering the GLOMERULUS of the kidney, or lymphatics entering a lymph gland. See EFFERENT.

**affiliation** (ˌaˈfileshootən) the judicial decision about the paternity of a child with a view to the issue of a maintenance order.

**affinity** (əˈfinətē) in chemistry, the attraction of two substances to each other, e.g. haemoglobin and oxygen.

**afibrinogenaemia** (ˌaˌfiˌbrənəˈjeəmiə) the absence of fibrinogen in the blood. The clotting mechanism of the blood is impaired as a result.

**African tick fever** (ˌafrikən tık ˈfiːvə) a disease caused by a spirochaete, *Borrelia duttonii*. Transmitted by ticks. See RELAPSING FEVER.

**afterbirth** (ˈaftərˌbərθ) a lay expression used to describe the placenta, cord and membranes expelled after childbirth.
aftercare (ˈəftər kair) social, medical or nursing care provided after a period of hospital treatment.

afterimage (ˈəftərˌi mish) a visual impression that remains briefly after the cessation of sensory stimulation.

afterpains (ˈəftər paynz) pains due to uterine contraction after childbirth.

agammaglobulinaemia (ˌagəˌgæməˈɡlobyuhləˌneemə) a condition in which there is no gamma-globulin in the blood. The patients are therefore susceptible to infections because of an inability to form antibodies.

agar (ˈəyɡər) a gelatinous substance prepared from seaweed. Used as a culture medium for bacteria and as a laxative because it absorbs liquid from the digestive tract and swells, so stimulating peristalsis.

age (ˈəj) 1. the duration of or the measure of time of the existence of a person or object. 2. to undergo change as a result of the passage of time. Achievement a. 1. see DEVELOPMENTAL MILESTONES. 2. proficiency in study expressed in terms of the chronological age of a normal child showing the same degree of attainment. 3. acquirement of a new skill or interest in old age or a praiseworthy accomplishment by an aged person. A. spots with increasing age, skin blemishes appear; most commonly they are seborrhoeic keratoses, which are brown or yellow and can occur anywhere on the body. Also common with increasing age are freckles, red pinpoint blemishes on the trunk and solar keratoses due to overexposure to the sun. Treatment is usually unnecessary except occasionally for solar keratoses, which may eventually progress to skin cancer. Chronological a. the actual measure of time elapsed since a person’s birth. Gestational a. an expression of age of a developing fetus, usually given in weeks. It is measured from the date of the mother’s last menstrual period and so is approximately 2 weeks longer than time from conception. Mental a. the age level of mental ability of a person as gauged by standard intelligence tests.

age-associated memory impairment (ˈəjəˌsəhəˈsēətədˌmeməˈriːəmərəməppərərmənt) with age, short-term memory declines; most older people learn to overcome and compensate for this deficit. However, for some it may be a considerable problem in daily living. Memory loss associated with dementia is often due to Alzheimer’s disease or cerebral vascular disease. See DEMENTIA and ALZHEIMER’S DISEASE.

aged care (ˈəjəd kair) those services provided to people over the age of 65 years; normally refers to residential aged care services.

ageing (ˈəjəjing) the structural changes that take place with time and that are not caused by accident or disease. Heredity is an important determinant of life expectancy, but factors such as smoking, an excessive intake of alcohol, obesity, poor diet and insufficient exercise can all contribute to physical and mental deterioration. A. population a phenomenon that occurs when the median age of a country or region rises due to rising life expectancy and/or declining birth rates. As the number of older people increases, the demand for healthcare increases.

ageism (ˈəjəizəm) the systematic discrimination against people on the grounds of age, based on stereotyping of the elderly as
helpless, infirm, confused and requiring healthcare and supportive social services.

**agenesis** (ay’jenəsəs) the failure of a structure to develop properly.

**agent** (ˈayjənt) any substance or force capable of producing a physical, chemical or biological effect. Alkylating a. a cytotoxic preparation. Chelating a. a chemical compound that binds metal ions. Wetting a. a substance that lowers the surface tension of water and promotes wetting.

**agglutination** (ə, gloo’tə nayshən) the collecting into clumps, particularly of cells suspended in a fluid and of bacteria affected by specific immune serum. A. test a means of aiding diagnosis and identification of bacteria. If serum containing known agglutinins comes into contact with the specific bacteria, clumping will take place (see WIDAL REACTION). Cross a. a simple test to decide the group to which a blood belongs (see BLOOD GROUPS).

**agglutinin** (ə’glootənən) any substance causing agglutination (clumping together) of cells, particularly a specific antibody formed in the blood in response to the presence of an invading agent. Agglutinins are proteins (see IMMUNOGLOBULIN) and function as part of the immune mechanism of the body. When the invading agents that bring about the production of agglutinins are bacteria, the agglutinins produced bring about agglutination of the bacterial cells.

**agglutinogen** (əg’luh’tınəjən) any substance that, when present in the bloodstream, can cause the production of specific antibodies or agglutinins.

**aggregation** (ə’graɡə’gayshən) the massing together of materials, as in clumping. **Familial a.** the increased incidence of cases of a disease in a family compared with that in control families. **Platelet a.** the clumping together of platelets which may be induced by a number of agents, such as thrombin and collagen.

**aggression** (ə’greshən) animosity or hostility shown towards another person or object as a response to opposition or frustration.

**agitation** (əjə’tayshən) 1. shaking. 2. mental distress causing extreme restlessness.

**aglutination** (əˌgloo’tishən) difficulty in the act of swallowing. Dysphagia.

**agnosia** (ənəzə) an inability to recognise objects because the sensory stimulus cannot be interpreted, in spite of the presence of a normal sense organ.

**agonist** (əˈgənist) the prime mover. A muscle opposed in action by another (the antagonist).

**agony** (ˈagənee) extreme suffering, either mental or physical.

**agoraphobia** (əgəˈrɑːfəˈhbiə) a fear of open spaces, especially of leaving the closed environment of home.

**agranulocyte** (ə’grənələˈsiet) a white blood cell without granules in its cytoplasm. The term includes monocytes and lymphocytes.

**agranulocytosis** (ə’grənələhəsˈtohəsə) a condition in which there is a marked decrease or complete absence of granular leucocytes in the blood, leaving the body defenceless against bacterial invasion. May result from: (a) the use of toxic drugs; (b) irradiation. Characterised by a sore throat, ulceration of the mouth and pyrexia. It may result in severe prostration and death.

**agraphia** (əˈgrafə-ə) an absence of the power of expressing thought in writing. It arises from a lack
of muscular coordination or as a result of a cerebral lesion.

**AHF** antihaemophilic factor (clotting factor VIII).

**AHG** antihaemophilic globulin (clotting factor VIII). *See also antihaemophilic.*

**AHPRA** Australian Health Practitioner Regulation Agency. This organisation is responsible for the implementation of the National Registration and Accreditation Scheme across Australia. AHPRA came into operation on 1 July 2010.

**AID** artificial insemination of a woman with donor semen.

**AIDS** (aydz) acquired immunodeficiency syndrome. The late symptomatic stage of chronic disease caused by human immunodeficiency virus (HIV) infection which progressively impairs the body's cell-mediated immune responses to infections and cancers. This results in serious 'opportunist infections' caused by microorganisms that do not usually cause illness in people with a healthy immune system, e.g. *Pneumocystis carinii* pneumonia (PCP), or cancers such as Kaposi's sarcoma (KS) and lymphoma. Additionally, this late stage of HIV disease is characterised by a high and rising level (viral load) of HIV and a progressively decreasing number (less than 200 cells/mm$^3$) of CD4$^+$ T lymphocytes in the plasma. Prior to AIDS, many HIV-infected people experience a variety of recurrent signs and symptoms, including lymphadenopathy, night sweats, diarrhoea, weight loss, malaise, oropharyngeal or vaginal candidiasis (thrush) and herpes zoster (shingles). Formerly known as the AIDS-related complex, this stage is now generally referred to as early symptomatic HIV disease (as opposed to AIDS, which is also known as late symptomatic HIV disease).

**AIH** artificial insemination by husband or partner is a fertility treatment that involves placing the partner's sperm inside the woman's uterus.

**ailment** (ˈaylment) any minor disorder of the body.

**AIN** *see* ASSISTANT IN NURSING.

**air** (air) a mixture of gases that make up the earth’s atmosphere. It consists of: non-active nitrogen 79%; oxygen 21%, which supports life and combustion; traces of neon, argon, hydrogen, etc.; and carbon dioxide 0.03%, except in expired air, when 6% is exhaled as a result of diffusion that has taken place in the lungs. Air has weight and exerts pressure, which aids in syphonage from body cavities. A. bed a rubber mattress inflated with air. A. embolism an embolism caused by air entering the circulatory system. A. encephalography radiological examination of the brain after the injection of air into the subarachnoid space. A. hunger a form of dyspnoea in which there are deep sighing respirations, characteristic of severe haemorrhage or acidosis. Complemental a. additional air that can be inhaled with inspiratory effort. Residual a. air remaining in the lungs after deep expiration. Stationary a. air retained in the lungs after normal expiration. Supplemental a. the extra air forced out of the lungs with expiratory effort. Tidal a. air that passes in and out of the lungs in normal respiratory action.

**airway** (ˈair way) 1. the passage by which the air enters and
leaves the lungs. 2. a mechanical device (tube) used for securing unobstructed respiration during general anaesthesia or on other occasions when the patient is not ventilating or exchanging gases properly. It may be passed through the mouth or nose. The tube prevents a flaccid tongue from resting against the posterior pharyngeal wall and causing obstruction of the airway (see figure).

akinesia (ˌaɪkəˈneezi-ə) loss of muscle power. This may be the result of a brain or spinal cord lesion or, temporarily, due to anaesthesia.

akinetic (ˌaɪkəˈnɛtɪk) relating to states or conditions where there is lack of movement.

alacrima (ˌələˈkrɪmə) a deficiency or absence of secretion of tears.

alalia (əˈləli-ə) loss or impairment of the power of speech due to muscle paralysis or a cerebral lesion.

alanine (ˈɑlə neen, -nien) an amino acid formed by the ingestion of dietary protein.

albinism (ˈælbiənizm) a condition in which there is congenital absence of pigment in the skin, hair and eyes. It may be partial or complete.

albino (alˈbɪnəʊ) a person affected with albinism.

Albright’s syndrome (ˌælbrɪtsˈsɪndroʊm) F. Albright, American physician, 1900–1969. Condition in which there is abnormal development of bone, excessive pigmentation of the skin and, in females, precocious sexual development.

albumin (ˈælbjuˌmɪn) 1. any protein that is soluble in water and moderately concentrated salt solutions and is coagulable by heat, e.g. egg white. 2. serum albumin; a plasma protein, formed principally in the liver and constituting about 60% of the 6–8% protein concentration in the plasma. Albumin is a very important factor in regulating the exchange of water between the plasma and the interstitial compartment (space between the cells). A drop in the amount of albumin in the plasma results in an increase in tissue fluid, which, if severe, becomes apparent as oedema. Albumin also serves as a transport protein.

albuminuria (ˌælbjuˈmɪnʊriə) the presence of albumin in the urine, occurring, e.g. in renal disease, in most febrile conditions and, sometimes, in pregnancy. Orthostatic or postural a. a non-pathological form that affects some individuals after prolonged standing but disappears after bed rest for a few hours.

alcohol (ˈælkəhol) a volatile liquid distilled from fermented saccharine
liquids and forming the basis of wines and spirits. The official British Pharmacopoeia (BP) preparation of ethyl alcohol (ethanol) contains 95% alcohol and 5% water. Used: (a) as an antiseptic; (b) in the preparation of tinctures; and (c) as a preservative for anatomical specimens. Taken internally, it acts as a temporary heart stimulant and, in large quantities, as a depressant poison. It has some value as a food, with 30 mL brandy producing about 400 J. Absolute a. that which contains not more than 1% by weight of water. A. fast pertaining to bacteria that, once having been stained, are resistant to decolourisation by alcohol. A. related disorders a variety of physical and mental disorders associated with prolonged and excessive consumption of alcohol including hepatitis, cirrhosis and some cancers, e.g. of the oesophagus, larynx and throat. Heavy alcohol consumption in pregnancy increases the risk of miscarriage and fetal alcohol syndrome. Alcoholics are more likely to suffer from personality changes, depression and the development of dementia. Many alcoholics suffer from a poor diet and are prone to nutritional deficiency. See WERNICKE–KORSAKOFF SYNDROME. A. withdrawal syndrome a group of symptoms that develop in a person suffering from alcoholism within 6–24 hours of taking the last drink of alcohol. The symptoms include restlessness, tremors, loss of appetite, nausea, vomiting, insomnia, disorientation, seizures and delirium tremens. Treatment involves sedation, improving nutrition, counselling and social support.

alcoholic (ˌalkəˈholik) 1. pertaining to alcohol. 2. a person addicted to excessive, uncontrolled alcohol consumption. This results in loss of appetite and vitamin B deficiency, leading to peripheral neuritis with eye changes and cirrhosis of the liver, and to progressive deterioration in the personality.

alcoholism (ˈalkəˈlizəm) the state of poisoning resulting from alcoholic addiction.

aldosterone (ˌaldohˈstərən, alˈdostərən) a compound, isolated from the adrenal cortex, that aids the retention of sodium and the excretion of potassium in the body, and by so doing aids the maintenance of electrolyte balance. A. antagonists a group of drugs which block the action of aldosterone.

aldosteronism (ˌaldəˈstərənəm) an excess secretion of aldosterone caused by an adrenal neoplasm. The serum potassium is low, and the patient has hypertension and severe muscular weakness.

aleukaemia (ˌəlˈikəmiə) an acute condition in which there is an absence or deficiency of white cells in the blood.

Alexander technique (əlˈaksəˈteknək) F.M. Alexander, Aust ralian actor and physiotherapist, 1869–1955. A process of psychophysical postural re-education. Body posture is believed to affect physical and psychological wellbeing and the postural re-education process aims to assist individuals in monitoring how they consciously use their bodies to promote good health.

alexia (əˈleksiə, ə-) a form of aphasia in which there is an inability to recognise written or printed words. Word blindness.

algorithm (ˈalɡəˌrɪðəm) a process or set of rules used in calculations, e.g. of medications, or for other
problem-solving. Computer programs are the most familiar examples of algorithms in everyday use.

**alienation** (ˌaɪlɪˈnɛɪʃən) a feeling of estrangement or separation from others or from self. A symptom of schizophrenia. Sufferers often believe that they are under the control of someone else. See **DEPERSONALISATION**.

**alignment** (əˈlɛnmənt) the state of being arranged in a line, i.e. in the correct anatomical position.

**aliment** (ˈɔləmənt) food or nourishment.

**alimentary** (ˌaɫəˈmentri) relating to the system of nutrition. A. *canal* or *tract* the passage through which food passes, from mouth to anus. A. *system* the alimentary tract together with the liver and other organs concerned in digestion and absorption.

**alimentation** (ˌaləˈməntəˈʃən) the giving or receiving of nourishment. The process of supplying the patient’s need for nutrition.

**alkalaemia** (ˌalkəˈleemiə) an increase in the alkali content of the blood. See **ALKALOSIS**.

**alkali** (ˈalkə ləˈkəl) a substance capable of uniting with acids to form salts, and with fats and fatty acids to form soaps. Alkaline solutions turn red litmus paper blue. A. *reserve* the ability of the combined buffer systems of the blood to neutralise acid. The pH of the blood is normally slightly on the alkaline side, between 7.35 and 7.45. The principal buffer in the blood is bicarbonate; the alkali reserve is essentially represented by the plasma bicarbonate concentration.

**alkaline** (ˈalkəˌlɛn) having the reactions of an alkali. A. *phosphatase* an enzyme localised on cell membranes that hydrolyses phosphate esters, liberating inorganic phosphate, and has an optimal pH of about 10.0. Serum alkaline phosphatase activity is elevated in obstructive jaundice and bone disease.

**alkalinity** (ˌalkəˈlɪntɪ) 1. the quality of being alkaline. 2. the combining power of a base, expressed as the maximum number of equivalents of acid with which it reacts to form a salt.

**alkaloid** (ˈalkəˌloyd) one of a group of active nitrogenous compounds that are alkaline in solution. They usually have a bitter taste and are characterised by powerful physiological activity. Examples are morphine, cocaine, atropine, quinine, nicotine and caffeine. The term is also applied to synthetic substances that have structures similar to plant alkaloids, such as procaine.

**alkalosis** (ˌalkəˈləʊsəs) an increase in the alkali reserve in the blood. It may be confirmed by estimation of the blood carbon dioxide content and treated by giving normal saline or ammonium chloride intravenously to encourage the excretion of bicarbonate by the kidneys.

**alkylating agent** (ˈalkəˌleɪtɪŋ ˈɛɪljənt) a drug that damages the deoxyribonucleic acid (DNA) molecule of the nucleus of the cell. Many are nitrogen mustard preparations and may be termed ‘chromosome poisons’; they are used in cancer chemotherapy.

**all-or-none law** (awl aw nun law) a principle stating that in individual cardiac and skeletal muscle fibres, there are only two possible reactions to a stimulus: either there is no reaction at all or there is a full reaction, with no gradation of
response according to the strength of the stimulus. Whole muscles can grade their response by increasing or decreasing the number of fibres involved.

**allantois** (əˈlantoh-ə) a membranous sac projecting from the ventral surface of the fetus in its early stages. It eventually helps to form the placenta.

**allele** (ˈæleel, əˈleel) allelomorph. One of a pair of genes that occupy the same relative positions on homologous chromosomes and produce different effects on the same process of development.

**allelomorph** (əˈleeləˌmawf) **ALLELE**.

**Allen test** (ˈələnˌtest) used to test the blood supply to the hand, specifically for the patency of the radial and ulnar arteries. It is performed prior to radial arterial sampling or cannulation.

**allergen** (ˈæləˈjən) a substance that may produce an allergy or manifestation of an immune response.

**allergy** (ˈæləjə) a hypersensitivity to some foreign substances that are normally harmless but which produce a violent reaction in the patient. Asthma, hayfever, angioneurotic oedema, migraine and some types of urticaria and eczema are allergic states. See **ANAPHYLAXIS**.

**allied health** (ˈəliッドhelθ) a group of healthcare services distinct from nursing, medicine and dentistry, such as occupational therapy, speech pathology and physiotherapy, provided by licensed professionals.

**allocate** (ˈələˌkayt) to assign for a particular purpose.

**allocation** (əˈləˌkayshən) the act of allocating. **Clinical a.** a period of time spent in a ward/department/unit where there are patients/clients.

**Patient a.** one nurse is designated as responsible for the care of one patient or a group of patients for a spell of duty. **Task a.** patient care in a ward/unit is provided by a group of nurses. Each nurse is allocated specific nursing activities.

**allograft** (ˈɔləˌgraft) an organ or tissue transplanted from one person to another of a dissimilar genotype but of the same species. **Non-viable a.** skin, taken from a cadaver, which cannot regenerate. **Viable a.** living tissue transplanted. See **HOMOGRAF**.

**alloimmunisation** (ˈɔləˌɪmyə-ˌnɪə-ˌzayshən) the immune response to donated blood, bone marrow or transplanted organ; Rh-negative pregnant women with an Rh-positive fetus can become alloimmunised following a sensitising event, e.g. antepartum haemorrhage or miscarriage, through the development of antibodies that target the foreign material, causing haemolytic disease of the newborn.

**allopathy** (əˌləpəˈθi) the practice of conventional medicine, i.e. with drugs having opposite effects to the symptoms.

**alopecia** (əˈlepiʃə) baldness. Loss of hair. The cause of simple baldness is not yet fully understood, although it is known that the tendency to become bald is limited almost entirely to males, runs in certain families and is more common in certain racial groups than in others. Baldness is often associated with ageing. **A. areata** hair loss in sharply defined areas, usually the scalp or beard. **Cicatricial a., a cicatrisata** irreversible loss of hair associated with scarring, usually on the scalp. **Male-pattern a.** loss of scalp hair, genetically determined and
androgen dependent, beginning with frontal recession and progressing symmetrically to leave, ultimately, only a sparse peripheral rim of hair.

**alpha** (ˈalfə) the first letter of the Greek alphabet, α. A. *cells* cells found in the ISLET OF LANGERHANS in the pancreas. They produce the hormone glucagon. A. *fetoprotein* (AFP) a plasma protein originating in the fetal liver and gastrointestinal tract. The serum AFP level is used to monitor the effectiveness of cancer treatment; the amniotic fluid AFP level is used in the prenatal diagnosis of neural tube defects. A. *receptors* tissue receptors associated with the stimulation (contraction) of smooth muscle.

**alternative medicine** (awltərnətiv ,medəsən) a form of medicine differing from conventional healthcare. Consists of a range of treatments essentially based on a holistic approach to health and wellbeing, including homeopathy, aromatherapy, hypnosis, naturopathy, acupuncture and others. These therapies fall into three categories: (a) touch and movement; (b) medicinal; and (c) psychological. Commonly called complementary therapies. See COMPLEMENTARY.

**altitude sickness** (ˌaltəˈtyood ,ˈsiknəs) a condition caused by hypoxia that occurs as a result of lower oxygen pressure at high altitudes before acclimatisation to the increased altitude.

**altruism** (ˌaltrooˌizəm) a sense of unconditional concern for the welfare of others.

**aluminium** (ˌaˌliəˈminiəm, ˌələ-) symbol Al. A silver-white metal with a low specific gravity, compounds of which are astringent and antiseptic.

*A. hydroxide* compound used as an antacid in the treatment of gastric conditions.

**alveolar** (ˌalviˈohlə) concerning an alveolus, or air sac of the lung. *Extrinsic allergic alveolitis* (ˌalviˈohləˈlietəs) inflammation of the alveoli in the lung.

**Alzheimer’s cells** (ˈalts-hieməz ,sels) A. Alzheimer, German neurologist, 1864–1915. 1. giant astrocytes with large prominent nuclei found in the brain in hepatolenticular degeneration and hepatic comas. 2. degenerated astrocytes.

**Alzheimer’s disease** (ˈalts-hieməz diˈziːz) a progressive form of neuronal degeneration in the brain and the most common cause of dementia in people of all ages. It is more common in older than younger people and is not just a form of presenile dementia, as was originally thought. The degeneration of neurones is accompanied by changes in the brain’s biochemistry. At present this condition is irreversible and there is no effective treatment. The most important aspect of treatment is the provision of appropriate nursing and social care for sufferers, together with ongoing support for their families.

**amalgam** (əˈmalgəm) a compound of mercury and other metals. Dental *a*. now rarely used for filling teeth.

**amaurosis** (ˌaməˈroʊsəs) loss of vision, sometimes following excessive blood loss, especially after prolonged bleeding, e.g. haematuria. The visual loss may be partial or complete, temporary or permanent.

**ambidextrous** (əˈmiːdəkstrəs) equally skilful with either hand.
ambivalence (amˈbivələns) the existence of contradictory emotional feelings towards an object, commonly of love and hate for another person. If these feelings occur to a marked degree, they lead to psychological disturbance.

amblyopia (əmˈblɪəˌɒpɪ-ə) dimness of vision without any apparent lesion of the eye. Uncorrectable by optical means.

ambulant (ˈambyələnt) able to walk.

ambulatory (ˌambʊˈlətəˌri) having the capacity to walk. A. treatment or care health services provided on an outpatient or day care basis.

amelioration (əˈmeelyəˈreɪʃən) improvement of symptoms; a lessening of the severity of a disease.

amenorrhoea (əˌmenəˈrēə, əˌmen-) the absence of menstruation. Primary a. the non-occurrence of the menses. Secondary a. the cessation of the menses after they have been established, owing to disease or pregnancy.

Ames test (əˈmez ′test) a biological assay to assess the mutagenic potential of chemical compounds. A positive test indicates that the chemical is mutagenic and therefore may act as a carcinogen, since cancer is often linked to mutation.

ametropia (əˌmeɪtroʊˈpiə) defective vision. A general word applied to incorrect refraction.

amino acid (əˌmeenoh ˈaasəd) a chemical compound containing both NH₂ and COOH groups. The end product of protein digestion. Essential a. a. one required for replacement and growth but which cannot be synthesised in the body in sufficient amounts and which must therefore be obtained in the diet (see table). Histidine is also essential in childhood. Non-essential a. a. one necessary for proper growth but that can be synthesised in the body and is therefore not specifically required in the diet.

aminoglycoside (əˈmeenohˈgliɛksəˌsi) any of a group of bacterial antibiotics, derived from various species of *Streptomyces*, that interfere with the function of bacterial ribosomes. The aminoglycosides include gentamicin, netilmicin, streptomycin, tobramycin, amikacin, kanamycin and neomycin. They are used to treat infections caused by gram-negative organisms and are classified as bactericidal agents because of their interference with bacterial replication. All the aminoglycoside antibiotics are highly toxic, requiring monitoring of blood serum levels and careful observation of the patient for early signs of toxicity, particularly ototoxicity and nephrotoxicity.

amitosis (əməˈtoʊsəs) multiplication of cells by simple division or fission.

ammonia (əˈmohniə) NH₃. A naturally occurring compound of nitrogen and hydrogen formed by the decomposition of proteins and amino acids. Converted into urea by the liver.

amnesia (əˌmeeziə, əˌmeezha) partial or complete loss of memory. Anterograde a. loss of memory of
capable of reproduction by amitotic fission. Infection of the intestines by *Entamoeba histolytica* causes ‘amoebic dysentery’.

**amoebiasis** (ˌamiˈbiəsəs) infection with amoeba, particularly *Entamoeba histolytica*.

**amoebic** (ˌamiˈbik) pertaining to, caused by, or of the nature of an amoeba. *A. abscess* an abscess cavity of the liver resulting from liquefaction necrosis due to entrance of *Entamoeba histolytica* into the portal circulation in amoebiasis; amoebic abscesses may affect the lung, brain and spleen. *A. dysentery* a form of dysentery caused by *Entamoeba histolytica* and spread by contaminated food, water and flies; also called amoebiasis. Amoebic dysentery is mainly a tropical disease but many cases occur in temperate countries. Symptoms are diarrhoea, fatigue and intestinal bleeding. Complications include involvement of the liver, liver abscess and pulmonary abscess.

**amoeboid** (ˌamiˈboid) resembling an amoeba in structure or movement.

**amorphous** (ˌaməˈfɔːs) without definite shape. The term may be applied to fine powdery particles, as opposed to crystals.

**amniocentesis** (ˌamniəˈsentɪs) the withdrawal of fluid from the uterus through the abdominal wall by means of a syringe and needle (see figure). It is primarily used in the diagnosis of chromosome disorders in the fetus and in cases of hydramnios. Mothers who are Rh-negative should be given a reduced dose of anti-D immunoglobulin after the procedure to prevent them making antibodies.

**amniography** (ˌamnɪˈəʊɡrəfi) radiography of the gravid uterus.

**amnion** (ˈamni-ən) the innermost membrane enveloping the fetus and enclosing the liquor amnii, or amniotic fluid.

**amniotic** (ˌamniˈotɪk) pertaining to the amnion. *A. fluid* the albuminous fluid contained in the amniotic sac, *liquor amnii*.

**amoeba** (ˈamɪbə) a minute unicellular protozoon. It is able to move by pushing out parts of itself (called pseudopodia).
water or drugs of specified dose
for injection are sealed.

**ampulla** (am′puh lə) the flask-like
dilatation of a canal, e.g. of a
uterine tube.

**amputation** (amp′yə tayshən) the
surgical removal of a limb or other part
of the body, e.g. the breast.

**amputee** (amp′yə tē) a person
who has had one or more limbs
amputated.

**amylase** (′a mə ləz) an enzyme that
reduces starch to maltose. Found
in saliva (ptyalin) and pancreatic
juice (amylopin).

**amylloid** (′a mə lloyd) 1. pertaining to
starch. 2. a waxy starch-like material
that is a complex protein forming
in tissues and organs leading to
turbid disturbances of function called
amyloidosis.

**amyllopsin** (a mə lop′son) an enzyme
found in the pancreas. See AMYLASE.

**amylum** (′a mə ləm) [L.] starch.

**amytonia** (ay′ mieh′ tənə) an	onic condition of the muscles.
A. congenita any of several rare
congenital diseases marked by
general hypotonia of the muscles.
Also called Oppenheim's disease
or floppy baby syndrome.

**anabolic** (anə bolik) relating to
anabolism. A. compound a substance
that aids in the repair of body tissue,
particularly protein. Androgens may
be used in this way.

**anabolism** (ə nə bə lizəm) the
building up or synthesis of cell
structure from digested food
materials. See METABOLISM.

**anacidity** (ənə sidətee) a decrease
in normal acidity.

**anaclitic** (ənə klītik) denoting the
dependence of the infant on the
mother or mother-substitute for
its sense of wellbeing. A. choice
a psychoanalytical term for the
adult selection of a loved one who
closely resembles one's mother
(or another adult on whom one
depended as a child). A. depression
severe and progressive depression
found in children who have lost
their mothers and have not found
a suitable substitute.

**anacrotism** (ə nakrə tizəm) an
abnormal pulse evidenced by the
presence of a prominent notch on
the ascending limb of the pulse wave
tracing. (adj. anacrotic)

**anaemia** (ə neem′ə) a deficiency
in either quality or quantity of red
corpuscles in the blood that reduces
the oxygen-carrying capacity of
the blood, giving rise especially to
symptoms of anoxaemia. There is
pallor, breathlessness on exertion
with palpitations, lassitude, headache,
giddiness and often a history of poor
resistance to infection. Anaemia may
be due to many different causes.
Increasingly, with the advent of
electronic cell counters, anaemia
is now classified according to the
morphological characteristics of the
ERYTHROCYTES. Aplastic a. the bone
marrow is unable to produce red
blood corpuscles. A rare condition.
Deficiency a. any type that is
due to the lack of the necessary
factors for red cell formation, e.g.
hormones or vitamins. Haemolytic
a. a variety in which there is
excessive destruction of red blood
corpuscles caused by antibody
formation in the blood (see RH
FACTOR) by drugs or by severe
toxaemia, as in extensive burns.
Iron-deficiency a. the most common
type of anaemia; due to a lack of
absorbable iron in the diet. It may
also be due to excessive or chronic
blood loss, or to poor absorption of
dietary iron. Macrocytic a. a type
in which the cells are larger than normal; present in pernicious anaemia. *Microcytic* a. a variety in which the cells are smaller than normal, as in iron deficiency. *Pernicious* a. a variety caused by the inability of the stomach to secrete the intrinsic factor necessary for the absorption of vitamin B₁₂ from the diet. *Sickle-cell* a. a hereditary haemolytic anaemia seen most commonly in people living in or originating from the Caribbean islands, Africa, Asia, the Middle East and the Mediterranean. The red blood cells are sickle shaped. *Splenic* a. a congenital, familial disease in which the red blood cells are fragile and easily broken down.

**anaerobe** (anˈeərəb) a microorganism that can live and thrive in the absence of free oxygen. These organisms are found in body cavities or wounds where the oxygen tension is very low. Examples are the bacilli of tetanus and gas gangrene.

**anaesthesia** (ˌanəˈseθiə) loss of feeling or sensation in a part or in the whole of the body, usually induced by drugs. *Basal* a. basal narcosis. Loss of consciousness, although supplemental drugs have to be given to ensure complete anaesthesia. *Epidural* a. injection into the extradural space between the vertebral spines and beneath the ligamentum flavum. *General* a. unconsciousness produced by inhalation or injection of a drug. *Inhalation* a. drugs or gas are administered by a face mask or endotracheal tube to cause general anaesthesia. *Intravenous* a. unconsciousness is produced by the introduction of a drug into a vein. *Local* a. local analgesia. Nerve conduction is blocked by injection of a local anaesthetic, by freezing with ethyl chloride or by topical application. *Spinal* a. injection of an anaesthetic agent into the spinal subarachnoid space.

**anaesthetic** (ˌanəˈθetik) a drug causing anaesthesia.

**anaesthetist** (əˈneesthətist) a person who is medically qualified to administer an anaesthetic and in the techniques of life support for the critically ill or injured.

**anal** (ˈaɪnl) pertaining to the anus. *A. eroticism* sexual pleasure derived from anal functions. *A. fissure* see *FISSURE*. *A. fistula* see *FISTULA*. *A. stage* the second stage of a child’s psychosexual development, characterised by the child’s sensual interest in the anal area and the passing or retention of faeces.

**anaeptic** (ˌanəˈleptik) a drug that stimulates the central nervous system.

**analgesia** (ˌanəˈlɛʒziə) insensibility to pain, especially the relief of pain without causing unconsciousness.

**analgesic** (ˌanəˈlɛzik, -sik) 1. relating to analgesia. 2. a remedy that relieves pain. *A. cocktail* an individualised mixture of drugs used to control pain.

**analogue** (ˈənələˈgog) 1. an organ with a different structure and origin to, but the same function as, another organ. 2. a compound with a similar structure to another but differing in respect of a particular element.

**analysis** (əˈnæləsəs) 1. the act of determining the component parts of a substance. 2. in psychiatry, a method of trying to understand
the complex mental processes, experiences and relationships with other individuals or groups of individuals to determine the reasons for an individual’s behaviour. *A. of covariance* (ANCOVA) a statistic that measures differences among group means and uses a statistical technique to equate the groups under study in relation to another given variable. *A. of variance* (ANOVA) a statistic that tests whether groups differ from each other, rather than testing each pair of means separately. ANOVA considers the variation among all groups.

**anaphase** (ˈanəˌfayz) part of the process of MITOSIS or MEIOSIS.

**anaphylaxis** (ˌanəˌflaksəs) anaphylactic shock. A severe reaction, often fatal, occurring in response to drugs, e.g. penicillin, but also to bee stings and food allergy, e.g. nuts in sensitive individuals. The symptoms are severe dyspnoea, rapid pulse, profuse sweating and collapse.

**anaplasia** (ˌanəˈplæzə) a change in the character of cells, seen in tumour tissue.

**anarthria** (anˈərθrē-ə) the inability to articulate speech sounds owing to a brain lesion or damage to peripheral nerves innervating articulatory muscles.

**anastomosis** (əˌnastəˈmɔʊsəs) in surgery, any artificial connection of two hollow structures, e.g. GASTROENTEROSTOMY. In anatomy, the joining of the branches of two blood vessels.

**anatomy** (əˈnætəmee) the science of the structure of the body.

**Ancylostoma** (ˌansəˌloʊstəmə) hookworm. A genus of nematode roundworms which may inhabit the duodenum and cause extreme anaemia and malnutrition. *A. duodenale* a hookworm, very widespread in tropical and subtropical areas.

**androgen** (ˈandrəˌjæn) one of a group of hormones secreted by the testes and adrenal cortex. They are steroids which can be synthesised and produce the secondary male characteristics and the building up of protein tissue.

**android** (ˈandroyd) resembling a man. *A. pelvis* a female pelvis shaped like a male pelvis with a wedge-shaped entrance and narrow anterior segment.

**anencephaly** (ˌənənˈsɛfəli, -ˈsɛf-) congenital absence of the cranial vault, with the cerebral hemispheres completely missing or reduced to small masses.

**anergy** (əˌnərˈjē) 1. a specific immunological tolerance in which T-cells and B-cells fail to respond normally. The state can be reversed. 2. tiredness, lethargy, lack of energy.

**aneurine** (əˌnərˈiən) thiamine. An essential vitamin involved in carbohydrate metabolism. The main sources are unrefined cereals and pork, vitamin B₁.

**aneurysm** (ˌənəˈrizəm) a local dilatation of a blood vessel, usually an artery (see figure, p. 27). Atherosclerosis is responsible for most arterial aneurysms; any injury to the arterial wall may predispose to the formation of a sac. Other diseases that can lead to an aneurysm include syphilis, certain non-specific inflammations, and a congenital defect in the artery. The pressure of blood causes it to increase in size and rupture is likely. Sometimes excision of the aneurysm or ligation of the artery is possible. *Dissecting a. a* condition in which a tear occurs in the aortic lining when the middle coat is necrosed.
**angiography** (ˌanjeeˈoɡrəfi) the radiological examination of the blood vessels using an opaque contrast medium.

**angioma** (ˌanjeeˈohmə) a benign tumour composed of dilated blood vessels.

**angioneurosis** (ˌanjeeohnəˈrōsə) a neurosis affecting the blood vessels, which may produce paralysis.

**angioneurotic** (ˌanjeeohnəˈrotik) pertaining to angioneurosis. A. oedema see OEDEMA.

**angioplasty** (ˌanjeeohˌplastee) surgery of a narrowed artery to promote the normal flow of blood. *Balloon a.* a technique in which a catheter with an elastic, flexible (balloon-like) tip that can be inflated is used to widen the narrowed blood vessel, e.g. in the heart. Usually a stent is inserted to keep the artery open. Stents have now been developed coated in slow-release drugs that reduce further risk of arterial narrowing. See STENT.

**angiosarcoma** (ˌanjeeohsahˈkohmA) a malignant vascular growth.

**angiospasm** (ˌanjeeohˌspazəm) a spasmodic contraction of an artery, causing cramping of the muscles.

**angiotensin** (ˌanjeeohˈtensən) a substance that raises the blood pressure. It is a polypeptide produced by the action of renin on plasma globulins.

**angle of Louis** (ˈayngəl ov ˈluːs) see STERNAL ANGLE OF LOUIS.

**anhydrosis** (ˌanhəˈdrohssə) a marked deficiency in the secretion of sweat.

**anhidrotic** (ˌanhəˈdrotik) an agent that decreases perspiration. An adiaphoretic.

**anhydremia** (ˌanhıˈdremıə) a deficiency of water in the blood.

**aniline** (ˈanəˌleen, -lən) a chemical compound derived from coal tar.

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### Types of aneurysm.

- **Fusiform**
- **Saccular**
- **Dissecting**