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Dictionary

Jaypee's

Dental Dictionary



2nd Edition

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(Late) LC Gupta
Sujata Sarabahi

JAYPEE

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A (in reference to cephalometrics) is the deepest midline point in curved boney outline from base to alveolar process of the maxilla.

A beta is the type of fibers which carry sensations like touch, pressure and position.

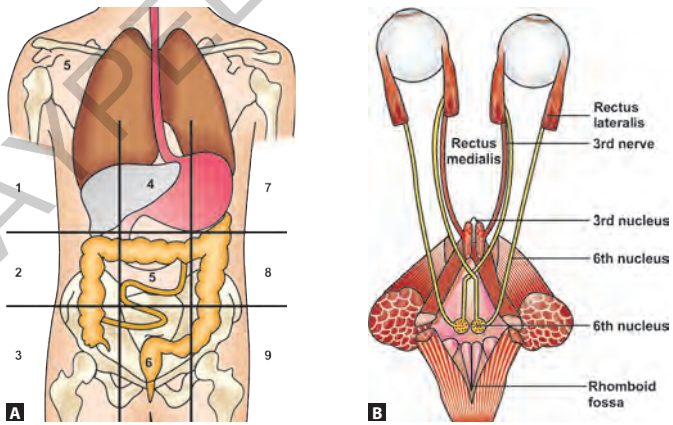
A delta is the type of fibers which carry sharp pain with a speed of 12–20 m/sec.

Abdominal region refers to abdominopelvic cavity that is divided into '9' regions. The central regions are epigastric, umbilical and hypogastric. Epigastric literally means upon stomach. Umbilical is centermost region surrounding umbilicus and hypogastric region, is just below umbilical region. Six regions are on either side, i.e. three to the left and three to the right. These are known as hypochondriac, lumbar and iliac region. Iliac regions are also known as inguinal regions.

Abdominopelvic cavity is a region that is located below diaphragm. Upper portion is called abdominal cavity and contains liver, gall bladder, pancreas, spleen and kidney. Lower portion is known as pelvic cavity. It extends down from the level of hip and contains rectum, urinary bladder and internal parts of reproductive system.

Abducent nerve is the sixth cranial nerve. It is made up of fibers that arise in the abducent nucleus and supply the lateral rectus muscle of the eyeball.

Abducent nucleus is situated in the lower part of the pons. It lies in the gray matter lining the floor of the fourth ventricle, near the midline. The position of the nucleus in relation to the floor of the fourth ventricle is indicated



Figs A and B: *(A) Abdominal quadrants; (B) Abducent nerve*

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A

by an elevation called the facial colliculus.

Aberrant salivary glands are those salivary gland tissues that develop at a site where they are not usually found. These are frequently seen in cervical region near the parotid gland. Most aberrant glands in neck occur in upper portion of neck.

Abfraction is said to have occurred when minute stresses develop around the cervical margins of teeth as a result of the flexure of the root and the crown of the tooth. The cracks propagate from occlusal forces established along the tooth and from abrasion and erosion.

Abortion means spontaneous or induced termination of pregnancy before the fetus is independently viable or the expulsion of an embryo, or fetus before it has reached to the stage of viability prior to about 20 weeks of gestation. Therapeutic abortion is done to save woman's life. Complication includes shock and sepsis.

Abrasion is wearing away of tooth structure from friction of a foreign object. Most commonly, it is caused by tooth brushing and is seen at the cervical margin of the teeth. It is more common on left side than on the right one. It can be confused with root surface caries. On radiograph, it is seen as well-defined horizontal radiolucency along the cervical margin of a tooth. Habitual cigar holder may cause abrading of an incisal edge. Harder materials tend to be more abrasion resistant than soften ones.

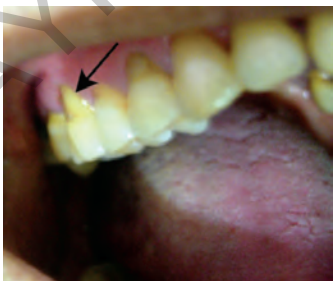

Fig.: *Abrasion cavities with gingival recession*

Abrasive refers to the material which causes wear or abrasion of another material.

Abrasive index is a method of rating the abrasiveness of dentifrices.

Abscess refers to a local infection which can be caused due to severe decay, periodontal disease, or trauma. It is characterized by swelling and pain. If an abscess ruptures, it will be accompanied by sudden relief from pain due to a reduction in pressure. A foul taste may also be noticed.

Absence (Petit mal) seizures: Most common type of generalized seizures occurring in children between 4 and 14 years of age. This type of seizure starts with no warning. They typically last from 10 to 25 seconds. Seizures frequently occur in clusters and may take place up to hundred times a day. There are two types of absence seizures: typical and atypical.

Absent bowel sounds refer to an inability to hear any bowel sounds in every abdominal quadrant. Abdomen distends and risk of

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perforation or peritonitis develops. It may require immediate attention.

Absent mindedness can be described as habitual inattention marked by preoccupation with thoughts. There is no attention to external stimuli.

Absolute humidity is the weight of water vapor in a unit volume of air. It is expressed as gram per kg or gram per cubic meter of air.

Absolute reliability is quantified by standard error of measurement. It is an extent to which a score varies on repeated measurement.

Absorption (in reference to dental material) can also be described as penetration of one material into another.

Absorption (in reference to radiology) is a process through which X-ray imparts some or all of its energy to the material through which it passes; it depends on the atomic structure of matter and wavelength of the X-ray beam.

Absorption refers to the accumulation of substance at an interface in a concentration different from concentration of substance in bulk.

Absurdity is an idea or expression which is nonsensical, incoherent or meaningless.

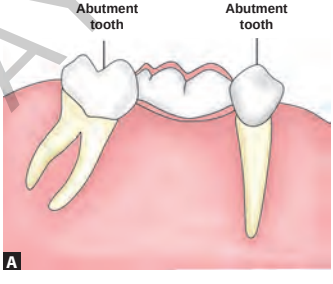
Abuse means misuse.

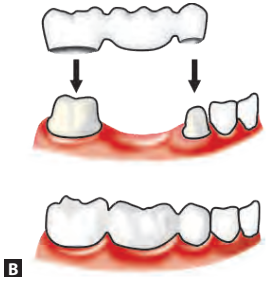
Abutment is a tooth adjacent to an empty space in mouth, which will be used to support the prosthetic device.

Academic refers to pertaining to formal education.

Acanthesthesia refers to the skin sensation in which there is feeling of pinprick.

Acanthosis nigricans may be benign, malignant and pseudoacanthosis nigricans. Benign form seems to be genetic. Malignant form is associated with internal malignancy. It develops after 40 years of age. Pseudoacanthosis is most common form. Tongue and lips appear to be involved more. Lips may be enlarged and covered by papillomatous growths, especially the angle of mouth. Buccal mucosa shows a velvety white appearance with papillary lesions. There develops gingival papillomatosis with perioorofacial, mucosal and skin lesions.





Figs A and B: *Abutment tooth*

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A

Gastric adenocarcinoma may develop. There is no treatment for the disease.

Acatalepsia refers to the inability to comprehend or reason.

Acataphasia refers to the inability to correctly form a sentence.

Access cavity preparation is defined as an endodontic coronal preparation which enables unobstructed access to the canal orifices, a straight line access to apical foramen, complete control over instrumentation and accommodate obturation technique.

Access opening burs are round burs with 16 mm bur shank (3 mm longer than standard burs).

Access refining burs are coarse grit flame-shaped, tapered round and diamond shaped for refining the walls of access cavity preparation.

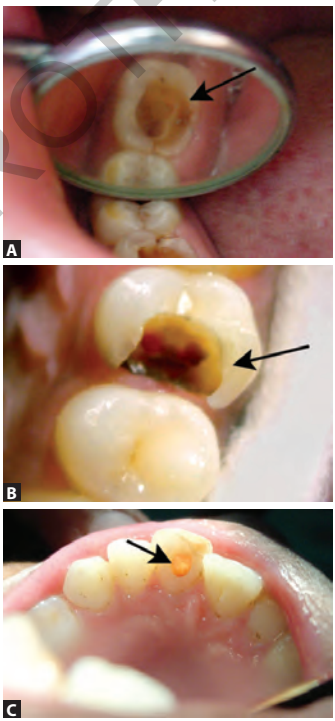
Accessory canal are lateral branches of the main canal that form a communication between the pulp and periodontium. Accessory canals contain connective tissues and vessels and can be seen anywhere from furcation to apex but tend to be more common in apical third and in posterior teeth. In other words, more apical and farther posterior the tooth, the more likely the accessory canals will be present.

Accessory cusps *see* talon's cusp, dens evaginatus.

Accessory gland is a gland that assists organs in doing their functions.

Accessory muscle refers to the muscle that participates with and assists a major muscle.

Accessory nerve is the eleventh cranial nerve (motor). It consists of two distinct parts, cranial and spinal. Both parts consist predominantly of efferent fibers as follows: The fibers of the cranial part arise from the nucleus ambiguus. These fibers join the vagus nerve and are distributed through its pharyngeal and laryngeal branches to muscles of the pharynx, soft palate and larynx. The fibers of the spinal part arise



Figs A to C: *(A) Access opening of a molar; (B) Premolar; (C) Incisor*

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from the lateral part of the ventral gray column of the upper five or six cervical segments of the spinal cord. They supply the sternocleidomastoid and trapezius muscles.

Acesulfame refers to the non-cariogenic sweetener about 200 times sweeter than sucrose with a pleasant taste and no aftertaste.

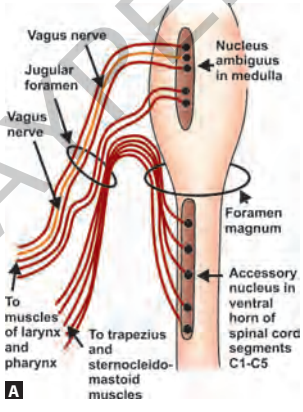
Acetabulum is the large cup-shaped cavity on the innominate bone in which femur fits in.

Acetic acid is a chemical found in fixed solution that stops the action of developer.

Acircular refers to the slender needle-like.

Acid is a substance that releases hydrogen ions into a solution. The higher the hydrogen ion concentration of a solution, the greater its acidity.

Acid attack refers to the action of acids that are released from plaque upon enamel.



Acid-base balance refers to the balance of body fluids that is maintained at pH 7.35–7.45 on the alkaline side. Acidic products of the body's metabolism are excreted in urine in combination with bases such as sodium and potassium. These bases are thereby lost to the body and acid-base balance is maintained.

Acid etching is an interim procedure where selective etching of the portions of enamel rods with 37% of phosphoric acid is done in order to increase the surface area and increased surface energy to obtain adhesion.

Acidophilic adenoma refers to the small benign lesion of salivary gland. It is more common in women. The tumor usually measures 3 to 5 cm above the age of 60. It is composed of large cells with eosinophilic cytoplasm. Lymphoid tissue is commonly present. Malignant transformation is rare and it has to be excised.

Acinar cells are those cells that are commonly found in salivary glands.



Figs A and B: *(A) Accessory nerve; (B) Acid etching*

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A

The acinar cells are of two types when stained by optical microscopy, i.e. basophilic serous cells and eosinophilic mucous cells. On the basis of their acinar secretory cell composition, the secretions of the parotid and Von-Ebner's gland are classified as serous. The secretions of submandibular and sublingual glands are mixed. The serous and mucous cells also play an important role in protein glycoprotein secretion.

Acini are pancreatic cells that secrete serous fluid with digestive enzyme.

Acinic cell tumor refers to the pleomorphic adenoma; these are not common neoplasm of salivary gland. Parotid is affected and is not frequently seen in intraoral sites. Clinical features: size of lesion is about 3 cm, overlying skin is intact, lesion is well-defined and slow growing, cystic spaces make it fluctuant, rarely lip or cheek may be involved. Surgical excision is the solution.

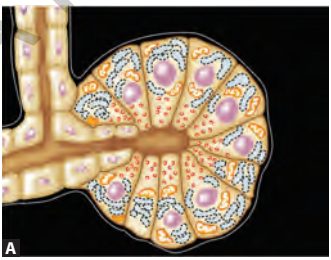
Acne fulminous is an acute onset of extreme severity. It develops abruptly, numerous large painful papules, nodules and cysts develop. There may be painful arthropathy. Systemic steroids and steroids may be required.

Acne vulgaris refers to the condition where acne develops over face during teenage. Lesions consist of papules and pustules with black and white heads. Face, back and chest are affected. Acne with virilization is due to androgen secreting tumor of adrenal, ovary and testis. Treatment is long and response is slow and uncertain.

Aconite poisoning is mainly used for homicidal purpose. Arrows are poisoned by paste of aconite by hilly tribes to kill their enemies. Powdered aconite is sprinkled in water of tanks and wells so that whosoever drinks, dies. It is extremely unstable, hence is difficult to detect after death.

Acousticophobia refers to the morbid fear of sound or noise.

Acquired congenital reflex is a reflex that develops after the eruption of the posterior primary teeth, i.e. at the age of 18 months or more. The child tends to swallow with the teeth brought together by the masticatory muscle action without tongue thrust.





Figs A and B: *(A) Acinar cells; (B) Pleomorphic adenoma*

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Acquired immunity refers to the immunity that is acquired after birth. It can be described as resistance that is weak or absent in the first exposure but that increases dramatically with subsequent exposures to the same specific pathogen.

Acrocinesia refers to the excessive movement.

Acrodermatitis enteropathica is rare disease affecting childhood and transmitted as an autosomal recessive character. It may be due to zinc deficiency. Zinc supplements are the treatment of choice. Person develops skin lesions, hair loss, nail changes and diarrhea. Retarded body growth and mental changes also occur. Buccal mucosa, palate gingival and tonsils may show red and white spots. Erosions and ulcers are noted and halitosis is severe.

Acrodynia occurs in young infants. There are many cutaneous manifestations. Ear, nose, cheeks become pink and has cold, clammy feeling and the skin over affected area peels off easily. Photophobia, lacrimation, muscular weakness, hypertension and stomatitis are also seen. Drooling of saliva is there, gingiva becomes sensitive to pain, exhibiting ulcer. Mastication becomes difficult. Administration of BAL is helpful.

Acromegaly develops due to excessive growth hormone from anterior pituitary gland. Hands, fingers and feet are enlarged. Face becomes longer. Voice becomes husky. Visual disturbance develops.

Acrosoma is a specialized structure on the sperm containing enzymes.

Acrylic is a material used for prosthesis and various types of appliances. It consists of powder called polymer and a liquid called monomer, when mixed, it sets into a hard acrylic by a process called curing. Heat cured acrylic is used for dentures and orthodontic appliances. While cold cured acrylic is used for denture repairs, impression trays and temporary crowns.

Acrylic faced cast metal crown refers to the crown that can be used as long-term provisional crown during the intermediate stage in a large scale oral reconstruction. However, it has its own disadvantages as it gets deteriorated in the oral cavity by being worn away, discoloring and due to marginal leakage.

Acrylic jacket crowns are used as provisional crowns since they are more permanent than the usual simple temporary procedures and less costly than cast metal crowns. These types of crowns are usually used where other form of treatment, such as periodontal or



Fig.: *Acromegaly*

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A

orthodontic treatment, is to be done before the final placement of crown.

Actatic speech refers to the uncoordinated verbal communication.

Actin refers to the muscle protein used in contraction.

Actinomyces is a Gram-positive, non-motile, non-spore-forming organism occurring as rods and filaments that vary considering in length. Filaments are usually long and slender and are branching.

Actinomycosis is caused by Gram positive, non-acid fast, branched, filamentous bacteria. It is a chronic granulomatous fibrosing disease. Organism may enter the tissues through the oral mucous membrane and may remain localized or spread to the adjacent soft tissue. Skin over underlying abscess is purplish-red and indurated or often fluctuant. Mandible may be involved.

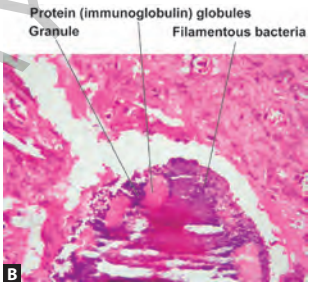
Action potential is the rapid change in the membrane potential of excitable nerve and muscle cells associated with the conduction of impulses along the cell membrane.

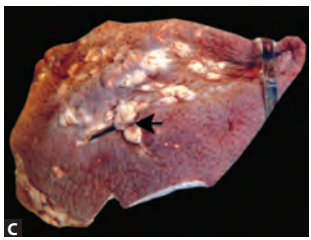
Action tremors *range* in speed between 7 to 11 Hz and more distally than proximally. Such tremors can easily be suppressed by beta blockers. Alcohol may abolish but withdrawal tremors may appear again.

Activation phase Leukocyte chemotactic factors bind to receptors on neutrophils surface and trigger the activation phase of endothelial binding. They include fragments of fibrin/collagen, soluble factors, by-products of complement cascade, chemokines, PAF, leukotriene









Figs A to C: *(A) Acrylic jacket crowns; (B) Actinomycosis; (C) Actinomycosis skin*

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Dictionary

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Salient Features

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- For the convenience of students, the book has been divided in three sections, i.e., dictionary, annexures and colour plates.
- Annexures contains additional valuable information, critical values, formulas, tables etc.
- Colour plates containing elaborate and complex labelled diagram for easy understanding



Priya Verma Gupta is an experienced pedodontist, currently working as professor at Divya Jyoti College of Dental Sciences and Research, Modinagar, Ghaziabad, Uttar Pradesh, India. She has keen interest in academics and has few international and national publications to her credit. She has authored four books and has contributed actively to other medical books as co-author and contributor. Currently, she is associated with the editorial board of Journal of Indian Medical Gazette and Jaypee's International Journal of Clinical Pediatric Dentistry.



Late Dr LC Gupta was a renowned radiologist by profession and had world record of writing 113 medical books in various specialities. He has also been bestowed with nation's most prestigious award such as Padmashri (2010), Millennium medical author of SAARC nations (2002), most prolific author (2008), president police medal award for distinguished service (1993), BC Roy national award (1988).



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