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ABBM (abbrev.): Anorganic bovine bone matrix.

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aberrant: Varying or deviating from the usual or normal course, form, or location.

abfraction: The hypothetical process leading to the loss of cervical tooth structure due to a combination of abrasion, erosion, and/or occlusal forces; data supporting this term as a discrete clinical entity is equivocal. See: Abrasion, Erosion.

abrasion: The wearing away of tooth structure or restorative material through an abnormal mechanical process.

abscess (Latin: *abscessus*): An immunologically contained and controlled lesion that is an accumulation of pus (neutrophils) in a pocket found in tissue. Caused by inflammation induced by either (1) a localized infection caused by bacteria or parasites or (2) foreign materials lodged in the tissue. It is a defensive mechanism to prevent the dissemination of the infection to other parts of the body.

abscess: **Acute a.:** An abscess of relative short duration, typically producing pain and local inflammation. **Apical a.:** Inflammatory condition characterized by formation of purulent exudate involving the dental pulp or pulpal remnants and the tissues surrounding the apex of a tooth. **Chronic a.:** 1. Abscess of comparatively slow development with little evidence of inflammation. There may be an intermittent discharge of purulent matter. 2. Long-standing collection of purulent exudate. It may follow an acute abscess. See: Abscess, Residual. **Gingival a.:** A localized

purulent infection that involves the marginal gingiva or interdental papilla. **Pericoronal a.:** A localized purulent infection within the tissue surrounding the crown of a partially erupted tooth. **Periodontal a. (Parietal a.):** Localized purulent inflammation in the periodontal tissues, also called lateral periodontal abscess. **Pulpal a.:** Inflammation of the dental pulp characterized by the formation of purulent exudate. **Residual a.:** Abscess produced by the residues of a previous inflammatory process. **Wandering a.:** Abscess in which purulent material flows along a course of decreased resistance and discharges at a distant point.

absorbable: See: Bioabsorbable material.

absorbed radiation dose (also known as *total ionizing dose*, TID): The quantity of ionizing radiation (measured in joules [unit of energy] per kilogram or gray [GY] units) that a patient absorbs during diagnostic or therapeutic radiation. The absorbed dose is dependent upon (1) the incident radiation and (2) the absorbing material (i.e., an X-ray beam may deposit four times the radiation dose in bone as that deposited in air, or none may be deposited in a vacuum).

absorption: 1. Passage of a substance into the interior of another substance. 2. Passage of fluids or substances through tissues. 3. Attenuation of radiation energy by the substance through which it passes.

abutment: 1. The component that interfaces with the implant fixture (implant body) and the prosthetic entity. It may be constructed to accept screw- or cement-retained prosthetics and be made of

titanium, alloyed metals, ceramic, zirconia; be custom made; or be uniformly produced by manufacturers. The abutment may have one or multiple pieces and can be straight or angled. **Pier a.:** An abutment positioned between adjacent abutments. 2. Tooth, tooth root, or implant component that serves as support and/or retention for a dental prosthesis. **Screw design of a.:** Prosthetic implant component manufactured with threads at the apical portion of the element. This term refers to the manufacture of a specific thread pattern unique to a particular implant company. **Tightness of a.:** Amount of clamping force present within the body of an abutment screw following placement. See: Preload.

abutment analog: A replica of the dental implant abutment that is used when making an impression for the laboratory fabrication of the definitive implant abutment. The implant abutment may be made of brass, aluminum, steel, or plastic.

abutment clamp: Forceps used to assist in the positioning of an abutment on a dental implant platform, or any device used for positioning a dental implant abutment upon the dental implant body.

abutment connection: The act of fastening an abutment to a dental implant, or of connecting an abutment to an endosseous implant.

abutment driver: Instrument or device used to assist in the delivery and tightening of an abutment to a dental implant.

abutment healing cap: Any temporary cover used to provide a seal over the superior portion of a dental implant; most such covers are metallic and are intended for interim usage following exposure of the dental implant's superior surface.

abutment holder: Instrument that provides abutment retention for extraoral preparation and polishing procedures.

abutment-implant interface: Common contact surface area between an implant abutment and the supporting implant.

abutment impression coping: See: Impression coping.

abutment-level impression: The impression of an abutment either directly, using conventional impression techniques, or indirectly, using an abutment impression coping. See: Implant-level impression.

abutment mount: Prefabricated device, usually packaged with an abutment, used for the transfer of an abutment to a dental implant intraorally.

abutment post: That component of a dental implant abutment which extends into the internal structure of a dental implant and is used to provide retention and/or stability to the dental implant abutment.

abutment screw: A threaded fastener used to connect an abutment to a dental implant. It is usually torqued to a final seating position, or single-piece implant component with a threaded apical portion that can be connected directly to the implant. No additional screw is required to connect and secure the abutment component, or that component which secures the dental implant abutment to the dental implant body.

abutment selection: A step in the prosthodontic treatment whereby a decision is made regarding the type of abutment to be used for the restoration based on dental implant angulation, interarch space, soft tissue (mucosal) height, planned prosthesis, occlusal factors (e.g., opposing dentition, parafunction), esthetics, and phonetic considerations.

abutment swapping: See: Platform switching.

abutment transfer device: See: Orientation jig.

access hole: Opening in a replacement tooth's occlusal or lingual surface of an implant-retained prosthesis that provides entrance for abutment or prosthesis screw placement or removal.

accessory ostium: Occasional opening of the maxillary sinus either into the infundibulum or directly in the wall of the middle meatus. See: Ostium (maxillary sinus).

accretion: An accumulation of plaque, calculus, or material alba on teeth or dental implants.

acellular: Devoid of cells.

acellular dermal allograft: Allogenic skin graft, derived from a human cadaver, consisting of a thin split-thickness of dermis, devoid of cellular content following a tissue preparation process.

acetaminophen: Amide of acetic acid and p-aminophenol, a nonopioid analgesic and antipyretic drug, which may be administered orally or rectally.

acid-etched implant: External surface of an implant body that has been modified by the chemical action of an acidic medium. The subtractive surface is intended to enhance osseointegration.

acid-etched surface: Treatment of a surface with an acid in order to increase its surface area by subtraction. See: Subtractive surface treatment.

acid etching: Act of modifying an implant surface by exposure to an acidic medium with the intention of enhancing osseointegration.

acquired centric: See: Occlusion, centric.

acquired immunity: Specialized form of immunity involving antibodies and lymphocytes. Active immunity develops after exposure to a suitable agent (e.g., by an attack of a disease or by injection of antigens), and passive immunity occurs with transfer of antibody or lymphocytes from an immune donor.

acquired immunodeficiency syndrome: See: AIDS.

acrylic crown: See: Acrylic restoration.

acrylic resin: Any of a group of thermoplastic resins made by polymerizing esters of acrylic or methyl methacrylate acids.

acrylic resin veneer: Usually referring to fixed dental prosthesis, the veneering or lamination of the facial and/or buccal surfaces of a crown or fixed dental prosthesis using acrylic resin. The intention of such veneering is to provide a natural tooth color to the viewable portions of the restoration.

acrylic restoration: Tooth or other prosthetic restoration fabricated from acrylic resin, such as an acrylic crown.

Actinobacillus actinomycetemcomitans: Gram-negative, fermentative, nonmotile, coccoid or rod-shaped bacterium of the family Pasteurellaceae, part of the normal

mammalian microflora. This bacterium has been associated with periodontal infections and, in particular, early-onset, aggressive forms of periodontal disease. See: *Aggregatibacter actinomycetemcomitans*.

Actinomyces israelii: A gram-positive, nonmotile, facultatively anaerobic, pleomorphic bacterium. It is commonly found in the soil but can also be found in dental plaque and the intestinal tract of mammals. It is typically a commensal bacterium.

Actinomyces naeslundii: A gram-positive, nonmotile, facultatively anaerobic, pleomorphic bacterium found in marginal and interproximal plaque of healthy individuals. Cell morphology is often curved or branching rods. An early colonizer of the tooth surface.

Actinomyces viscosus: A pathogenic bacterial species that is catalase positive, gram positive, facultative anaerobic, nonmotile, filamentous, and pleomorphic. It is an indigenous microflora that colonizes the mouth of humans and is often affiliated with gingivitis, periodontitis, and root caries.

actinomycosis: A subacute to chronic bacterial infection caused by *Actinomyces*. A common form is cervicofacial (i.e., lumpy jaw).

activating tool: Instrument used to increase or reduce the retention of an attachment. See: Attachment.

active eruption: See: Eruption, dental.

actual implant length/diameter: The exact measurement of the length and diameter of a dental implant. See: Nominal implant length/diameter.

acute: 1. Sharp, severe. 2. Denoting the swift onset and course of a disease.

acute abscess: Abscess of relatively short duration, typically producing local swelling, inflammation, and pain.

acute infection: Infection with a rapid onset and usually a severe course.

acyclovir: A synthetic acyclic purine nucleoside that may be used systemically. Drug of choice in simple mucocutaneous herpes simplex, in immunocompromised patients with initial herpes genitalis. Also active against herpes virus including *H. zoster* and *H. varicella*.

adaptation: 1. The act or process of adapting; the state of being adapted. 2. The act of purposefully adapting two surfaces to provide intimate contact. 3. The progressive adjusted changes in sensitivity that regularly accompany continuous sensory stimulation or lack of stimulation. 4. In dentistry, (1) the degree of fit between a prosthesis and supporting structures, (2) the degree of proximity of a restorative material to a tooth preparation, (3) the adjustment of orthodontic bands to teeth.

adaptation syndrome: The body's short- and long-term response to accommodate stress.

added surface: See: Additive surface treatment.

additive fabrication: See: Solid freeform fabrication (SFF).

additive manufacturing (AM): The "process of joining materials to make objects from 3D model data, usually layer upon layer, as opposed to subtractive manufacturing methodologies, such as traditional machining," as defined by the American Society for Testing Materials (ASTM).

additive manufacturing file (AMF): An open standard file format for describing objects for additive manufacturing processes such as 3D printing. The official ISO/ASTM 52915:2013 standard is an XML-based format designed to allow any computer-aided design software to describe the shape and composition of any 3D object to be fabricated on any 3D printer. Unlike its predecessor STL format, AMF has native support for color, materials, lattices, and constellations.

additive surface treatment: Added surface. Alteration of the surface of a dental implant by addition of material. See: Subtractive surface treatment, textured surface.

adenitis: Inflammation of a lymph node or gland.

adenopathy: Pathologic enlargement of glands, especially lymphatic glands.

adenovirus: A DNA virus 80–90 nanometers in size. It can cause respiratory illness and conjunctivitis in humans. Human adenoviruses comprise at least 31 serotypes that can

be divided into three groups on the basis of oncogenicity.

adherence: The act or quality of uniting two or more surfaces or parts.

adhesion: Physical process of attachment of a substance to the surface of another substance, usually due to a molecular attraction that exists between the surfaces.

adhesive: Intervening substance used to unite adjoining surfaces. In maxillofacial prosthetics, adhesives are used for border adaptation, marginal seal, and the retention of facial, auricular, nasal, or orbital prostheses. Systems commonly used include biphasic adhesive tape and medical-grade adhesives.

adiadochokinesia: Inability to make opposing movements in quick succession, such as jaw opening and closing.

adipose atrophy: Loss of fat tissue.

adjunctive treatment: Supplemental or additional therapeutic treatments used in conjunction with the primary treatment. In periodontics, it generally refers to procedures other than scaling and root planing and surgical therapy, such as chemotherapy, occlusal therapy, and restorative care.

adjustable anterior guidance: The anterior guide portion on a dental articulator that allows for variable (individualized) settings that provide guidance for the occlusion in protrusive and lateral protrusive movements.

adjustable articulator: A dental articulator that is adjustable in the sagittal and horizontal planes to duplicate or simulate recorded mandibular jaw movements.

adjustable attachment system: Stud-shaped attachment in which the stud (easily replaced) serves as the patrix and the matrix consists of a metal housing. The base of the patrix can be cast to or soldered as part of a coping, and the matrix can be incorporated into the dental prosthesis. The patrix is adjustable using a special tool to modify the spread of the patrix width.

adjustment: Modification of a tooth or prosthetic restoration to improve its appearance, fit, or function.

adjustment, occlusal: See: Occlusal adjustment.

ADO (abbrev.): See: Algorithmic dental occlusion.

adsorption: The attachment of a substance to the surface of another.

adult periodontitis: See: Periodontitis.

aerobe: A microorganism that can live and grow in the presence of molecular oxygen.

aerobic: Environmental conditions that contain atmospheric levels of oxygen. Used in reference to microorganisms that grow optimally under these conditions. See: Facultative.

age atrophy: A wasting or decrease in size or physiological activity of the body related to the normal aging process.

agenesis: Failure of a body part to form.

Aggregatibacter actinomycetemcomitans: A gram-negative, nonmotile, facultatively anaerobic, rod-shaped bacterium found in subgingival and marginal plaque of healthy and periodontally diseased individuals.

aggressive periodontitis: See: Periodontitis.

agnathia: A growth-related defect characterized by a severely undersized mandible or no mandible.

agranulocytosis: Neutropenia; can be acute or chronic depending on the duration of the illness.

AIDS: Acronym for acquired immunodeficiency syndrome, caused by HIV (human immunodeficiency virus), that leaves the body vulnerable to a host of life-threatening illnesses. There is no cure for AIDS, but treatment with antiviral medication can suppress symptoms.

ailing implant: General term for a dental implant affected by periimplant mucositis, without bone loss. For some authors, an ailing dental implant is an implant with a history of bone loss that is not progressing. See: Periimplant mucositis, Periimplantitis.

air abrasion: A wearing away of a material's surface due to particulate material carried by an air current.

Akers' clasp: The archetypal direct retainer for removable partial dentures that comprises a rest, guide plate, retentive arm, and reciprocal arm. Akers' clasps are customarily

directed away from the area that is edentulous. If they are directed toward the edentulous area, they are called reverse Akers' clasps. This clasp was named after its inventor, Polk E. Akers.

ala nasi: The expanded outer wall of cartilage on the lateral aspect of the nose.

ala-tragus line: A line that runs from the inferior border of the ala of the nose to a point on the tragus (usually the tip) of the ear. It is often correlated with the tragus of the opposite ear. It is used in determining the ala-tragus plane. The ala-tragus and occlusal planes should be parallel.

albicans: Candidiasis attributable to *C. tropicalis*, *C. parapsilosis*, *C. pseudotropicalis*, and *C. stellatoidea* have also been cultivated from the oral cavity.

alendronate sodium: Oral nitrogen-containing bisphosphonate used for the treatment of osteoporosis. It acts as a specific inhibitor of osteoclast-mediated bone resorption. See: Bisphosphonate.

algae: See: Calcified algae.

alginate: An impression material derived from seaweed that sets in an irreversible rubbery mass.

aligpore: See: Calcified algae, Porous marine-derived coralline hydroxyapatite.

algorithm: An instance of logic written into software by software developers to be effective for computer(s) to produce output from given input. An algorithm is a procedure or formula for solving a problem in a finite, logical manner. Algorithms are self-contained, step-by-step sets of operations to be performed by the software program. They are widely used in 3D digital designing and manufacturing.

algorithmic dental occlusion (ADO): Computer algorithms used to establish virtual occlusion and movements. The algorithms encode physical motions and responses for each tooth and its respective antagonists and neighboring teeth. The advantage of ADO is that it allows for pursuing the goal of optimal occlusion, as defined by clinical standards, with the untiring effort of a computer.

alkaline phosphatase: Enzyme found in high concentrations in osteoblasts; commonly located on cytoplasmic processes extending into the osteoid. The level of alkaline phosphatase in serum is a systemic indicator for bone formation.

allele: One of two or more different genes that may occupy the same locus on a specific chromosome.

allergen: A substance capable of producing allergy or specific hypersensitivity.

allergy: The altered reactivity of a sensitized individual on exposure to an allergen.

alldynia: Pain resulting from a nonnoxious stimulus to normal skin or mucosa that does not normally provoke pain.

allogeneic: Antigenically distinct individuals or tissues from the same genetic species. In transplantation biology, denoting individuals (or tissues) that are of the same species however antigenically distinct; also called homologous allogeneic graft. See: Homograft.

allogeneic bone graft: Graft between genetically dissimilar members of the same species. Iliac cancellous bone and marrow, freeze-dried bone allograft (FDBA), and demineralized freeze-dried bone allograft (DFDBA) are available commercially from tissue banks.

allogenic graft: See: Allograft.

allograft: 1. See: Graft, Allograft. 2. A graft material used to augment a tissue that is from the same species but genetically dissimilar individuals.

allograft: (syn): Allogenic graft. Graft tissue from genetically dissimilar members of the same species. Four types exist: frozen, freeze-dried bone allograft (FDBA), demineralized freeze-dried bone allograft (DFDBA), and solvent-dehydrated mineralized allograft.

alloplast: 1. An inert foreign body used for implantation within tissue. 2. A material originating from a nonliving source that surgically replaces missing tissue or augments that which remains.

alloplastic graft: 1. See: Alloplast. 2. Graft material consisting of an inert material such as hydroxyapatite (HA), tricalcium phosphate (TCP), polymethylmethacrylate (PMMA)

and hydroxyethylmethacrylate (HEMA) polymer, or bioactive glass that is derived either synthetically or from a foreign, inert source.

alloplastic material: Any nonbiologic material suitable for implantation as an alloplast.

alloy: A mixture of two or more metals or metalloids that are mutually soluble in the molten state; distinguished as binary, ternary, quaternary, etc., depending on the number of metals within the mixture. Alloying elements are added to alter the hardness, strength, and toughness of a metallic element, thus obtaining properties not found in a pure metal. Alloys may also be classified on the basis of their behavior when solidified.

alloying element: Metallic or nonmetallic elements added to or retained by a pure metal for the purpose of giving that metal special properties.

all-polymer prosthesis: A nonmetallic or nonceramic removable or fixed dental prosthesis composed of a glass fiber-reinforced composite framework with a particulate composite resin covering or overlay.

altered cast: A technique in which a removable partial denture frame is related to the existing dentition by sectioning the cast on which the frame was constructed. A new overimpression is made and pieced together with the existing cast.

aluminous porcelain: A ceramic material with >35% aluminum oxide (by volume) glass matrix phase.

aluminum oxide: 1. A metallic oxide constituent of dental porcelain that increases hardness and viscosity. 2. A high-strength ceramic crystal dispersed throughout a glassy phase to increase its strength, as in aluminous dental porcelain used to fabricate aluminous porcelain crowns. 3. A finely ground ceramic particle (frequently 50 μm) often used in conjunction with air-borne particle abrasion of metal castings before the application of porcelain as with metal ceramic restorations. Aluminum oxide has been replaced by titanium as the material of choice for implants.

alveolar: 1. Pertaining to an alveolus. See: Alveolus. 2. The portion of jaw bones that support teeth or that supported teeth at one time. 3. Related to the alveolar process, the maxillary or mandibular ridge of bone that supports the roots of teeth.

alveolar atrophy: Decrease in the volume of the alveolar process occurring after tooth loss, decreased function, and/or localized overloading from an improperly fitting removable partial or complete denture.

alveolar augmentation: 1. See: Augmentation. 2. Surgical placement of bone augmentation material(s) to increase or alter the volume of the alveolar bone. 3. Any surgical procedure employed to alter the contour of the residual alveolar ridge.

alveolar bone: 1. See: Bone, alveolar. 2. That part of the maxilla or mandible comprising the tooth-bearing and/or supporting part of the jawbones. It consists of cortical plates, the vestibular plate being the thinnest, and trabecular bone. **Quantity of a. b.:** Of major importance to the outcome of implant placement, bone volume at a given implant site ideally should be at least 10 mm in vertical dimension and 6 mm in horizontal dimension. 3. The bony portion of the mandible or maxillae in which the roots of the teeth are held by fibers of the periodontal ligament; also called dental alveolus.

alveolar bone proper: The bone lining the alveoli; also called cribriform plate due to the numerous perforating channels (Volkmann's canals), lamina dura due to the radiographic appearance, fibrous endosteum due to the fibers of the periodontal ligament, bundle bone due to the large quantity of Sharpey's fibers. See: Buccal plate, Lingual plate.

alveolar crest: The most coronal portion of the alveolar process.

alveolar defect: A deficiency in the contour of the alveolar ridge in the vertical (apicocoronal) and/or horizontal (buccolingual, mesiodistal) direction.

alveolar distraction osteogenesis: 1. See: Distraction osteogenesis. 2. Augmentation procedure involving the surgical mobilization, transport, and fixation of an alveolar

bone segment. A mechanical distraction device allows a gradual, controlled displacement of the mobile bone segment at an ideal rate of 0.4 mm a day. Following the desired augmentation, the device is left in place for 3–4 weeks for consolidation of the newly formed bone.

alveolar mucosa: 1. See: Mucosa, alveolar. 2. Lining mucosa. The lining mucosa that covers the alveolar process apical to the mucogingival junction. It consists of a non-keratinized epithelium lining a connective tissue that is loosely attached to the periosteum and is movable. See: Oral mucosa.

alveolar nerve: Either of the superior alveolar nerve branches of the maxillary nerve of the second division of the trigeminal nerve (rami alveolares superiores posteriores, ramus alveolaris superior medius, and ramus alveolaris superior anteriores). Supplies sensory innervation to the maxillary molars, the premolars, or the canine and incisors, respectively. The inferior alveolar nerve (nervus alveolaris inferior) is the largest branch of the mandibular nerve of the third division of the trigeminal nerve or cranial nerve V, which supplies sensory innervation to the mandibular teeth, lower lip, and chin.

alveolar preservation: See: Ridge preservation.

alveolar process: 1. See: Alveolar ridge, Alveolar process, Residual ridge, Ridge. 2. The (alveolar) portion of jaw bones comprising the compact and cancellous portion of bone surrounding and supporting the teeth, or that supported teeth at one time.

alveolar recess: A cavity in the maxillary sinus floor formed by a septum.

alveolar reconstruction: Any surgical procedure employed to recreate a severely resorbed residual alveolar ridge, or surgical reconstruction of an atrophic alveolar ridge that does not allow for simultaneous implant placement because of the extent of bone deficiency.

alveolar resorption: See: Residual ridge resorption.

alveolar ridge: 1. See: Residual ridge. 2. The ridge portion of the jaw bone that supports teeth or that supported teeth at one time.

3. The bony ridge of the maxilla or mandible that contains the alveoli, or the osseous part of the mandible and maxilla remaining after removal of teeth, i.e., alveolar process. See: Alveolus, Residual ridge, Ridge.

alveolar ridge augmentation: 1. See: Augmentation. 2. Surgical augmentation of the alveolar ridge in a horizontal and/or vertical direction using one of several approaches based on the size and/or location of the defect.

alveolar ridge defect: 1. See: Alveolar defect, Ridge defect. 2. Circumscribed absence of tissue in a residual alveolar ridge.

Implant placement in a. r. d.: Requires simultaneous guided bone regeneration (GBR). Prerequisites for a simultaneous approach are: (1) implant placement in a correct prosthetic position, (2) good primary stability of the placed implant, and (3) an appropriate defect morphology that allows for a predictable regenerative treatment outcome. Vertical defects are more demanding than horizontal defects, as are one-wall, two-wall, and three-wall defects. **Morphology of a. r. d.:** Classified as horizontal and/or vertical deficiencies. Classification is important for determining the prognosis of bone augmentation procedures.

alveolar ridge resorption: See: Ridge resorption.

alveolar septum: See: Inter-alveolar septum.

alveolectomy: 1. See: Osteotomy. 2. Surgical removal of all or a portion of the alveolar process of the jaw bone(s), usually performed to achieve acceptable ridge contour in preparation for construction of a denture or placement of an implant.

alveoloplasty: 1. See: Osteoplasty. 2. The surgical procedure of altering the alveolar ridge or its surrounding bony structures by cutting, smoothing, or reshaping to correct the alveolar ridge external contour in preparation for prosthetic rehabilitation.

alveolus (plural: alveoli): The socket in the bone into which a tooth is attached by means of the periodontal ligament, or one of the cavities or sockets within the alveolar process of the maxillae or mandible in which the

attachment complex held the root of a tooth after the tooth's removal.

AM (abbrev.): Additive manufacturing.

AMF (abbrev.): Additive manufacturing file.

aminoglycosides: A group of antibiotics (streptomycin, gentamycin, tobramycin) commonly combined synergistically with penicillins.

amorphous: Having no rigid shape or organized structure, without crystalline structure; having random arrangement of atoms in space.

amoxicillin: Broad-spectrum antibiotic, a semi-synthetic derivative of ampicillin, with a superior absorption and a bioavailability of 70–80% with very low toxicity. It is effective against gram-positive and gram-negative bacteria and may be combined with clavulanic acid to counteract the beta-lactamase destruction of penicillin by resistant bacteria. This antibiotic is often used in the treatment of infections caused by susceptible strains of *Haemophilus influenzae*, *Escherichia coli*, *Proteus mirabilis*, *Neisseria gonorrhoeae*, streptococci (including *Streptococcus faecalis* and *S. pneumoniae*), and nonpenicillinase-producing staphylococci of the oral cavity. It is the primary drug for antibiotic prophylaxis. See: Clavulanic acid.

amputate: The intentional surgical removal of diseased tissue; relating to dentistry, may be amputating a root from a multirooted tooth or the removal of a portion of a root.

anachoresis: A process through which circulating bacteria, pigments, metallic substances, foreign proteins, and other materials are fixated to areas of inflammation.

anaerobe: A microorganism that can survive in partial or complete absence of molecular oxygen.

anaerobic: Used in reference to microorganisms that can survive and grow in the absence of molecular oxygen.

analgesia: Absence of sensibility to pain, designating particularly the relief of pain without loss of consciousness.

analgesic: 1. An agent that alleviates pain without causing loss of consciousness.

Two general categories exist: opioid and nonopioid. See: Blocking agent, Diagnostic block. 2. (adj): Relieving pain.

analgesic blocking agent: Any analgesic that blocks or prohibits sensory perception.

analgesic diagnostic block: the selective use of a local anesthetic injection or application of a topical anesthetic to identify a pain source.

analog/analogue: Prosthetic component or element, the working surface of which is an exact duplicate of a specific surgical and/or prosthetic component. Typically, it is made of brass, aluminum, steel, or plastic and is used in the fabrication of the dental prosthesis. This element is typically incorporated in dental laboratory procedures to facilitate fabrication of an accurate master cast and/or prosthesis and can be incorporated into a model for patient education purposes. See: Replica.

analog workflow: Process of performing a task using physical means and materials, usually carried out by hand as opposed to using digital technology.

analysis of variance (ANOVA): 1. Test assessing the statistical significance of the differences among the obtained means of two or more random samples from a given population. 2. Statistical test to compare three or more groups on the mean value of a continuous response variable.

anamnesis: 1. A recalling to mind; a reminiscence. 2. The past history of disease or injury based on the patient's memory or recall at the time of interview and examination. 3. A preliminary past medical history of a medical or psychiatric patient.

anaphoresis: In electrophoresis, the movement of anions (negatively charged particles) in a solution or suspension toward the anode.

anaphylactic shock: A severe, sometimes fatal, immediate allergic reaction, usually occurring seconds to minutes after exposure to an antigen and mediated via histamine.

anaphylaxis: Immediate hypersensitivity response to antigenic challenge, mediated by IgE and mast cells; typically life-threatening.

anatomic crown: The portion of a natural tooth that extends coronal from the cemento-enamel junction; also called anatomical crown. See: Crown.

anatomic crown exposure: A surgical procedure designed to expose the anatomic crown by removal of soft tissue and, when necessary, supporting alveolar bone. See: Crown lengthening.

anatomic healing abutment: Prosthetic implant component that may be cylindrical in cross-section but widens in diameter towards the coronal surface. The three-dimensional design of a healing abutment is intended to guide healing of the periimplant sulcus for a cross-sectional shape that simulates a soft tissue emergence profile. See: Healing abutment.

anatomic landmark: A significant anatomic structure that is used as a reference point or orientation guide.

anatomic occlusion: An occlusal arrangement for dental prostheses wherein the posterior artificial teeth have masticatory surfaces that closely resemble those of the natural healthy dentition and articulate with similar natural or artificial surfaces; also called anatomical occlusion.

anatomic teeth: 1. Teeth that have prominent cusps on the masticating surfaces and are designed to articulate with the teeth of the opposing natural or prosthetic dentition. 2. Anatomic teeth with cuspal inclinations greater than 0° that tend to replica natural tooth anatomy; usage cusp teeth (30–45°) are considered anatomic teeth. Modified occlusal forms are those with a 20° cusp incline or less.

anatomy: 1. A branch of morphology that involves the structures of organs. 2. The structural make-up esp. of an organ or any of its parts. 3. Separating or dividing into parts for examination, anatomic or anatomical.

ANB angle: The angle formed by the anatomic landmarks nasion A line and nasion B line. The lines and angle are determined with a cephalometric analysis.

anchorage area: That area which, by its situation, configuration and/or preparation,

is suitable for the retention of a prosthesis anchorage component. See: Endosteal dental implant body.

anchorage, bicortical implant: See: Bicortical stabilization.

anchorage component: A part or device that provides resistance to an imparted force.

anchorage element: See: Endosteal dental implant abutment element(s).

anchor pin: Device used to stabilize a surgical or stereolithographic guide. It engages the underlying bone through a sleeve incorporated in the guide.

ancillary prosthesis: A prosthesis that aids in treatment and is intended for short-term or special usage. It is not the definitive prosthesis.

ancillary prostheses: One of the three main categories of dental prostheses made by those in the field of prosthodontics; any prosthesis not able to be described as either a dental prosthesis or a maxillofacial prosthesis. Examples may include guides, stents, splints, conformers, carriers and the like. Most such prostheses are intended for short-term or special usage.

anesthesia: 1. Absence of all sensation. 2. Loss of feeling or sensation caused by an anesthetic agent to permit diagnostic and treatment procedures; also spelled anaesthesia.

Block a.: Local anesthesia of a nerve trunk.

General a.: Depression of the central nervous system caused by anesthetic agents and characterized by simultaneous hypnosis, analgesia, and varying degrees of muscular relaxation, including, typically, the loss of protective laryngeal reflexes. **Infiltration a.:** Local anesthesia of terminal nerves. **Local a.:** Loss of sensation in a localized area of the body, but without central effect. **Regional a.:** Local anesthesia of a regional body area. **Topical a.:** Anesthetic effect produced by the application of an anesthetic agent to a surface area.

anesthetic: Capable of producing anesthesia.

angina pectoris: Paroxysmal thoracic pain with feeling of suffocation and impending death; usually due to anoxia of the myocardium and precipitated by effort or excitement.

angiogenesis: The physiologic process of growth and proliferation of new blood vessels from preexisting vasculature. The process occurs throughout life, in both health and disease, and plays a vital role in growth, development, and wound healing. See: Vascularization.

angiogenic: That which promotes or develops blood vessels, or promotes an increase in vascularization.

Angle's classification of malocclusion: A categorization of malocclusions according to the anteroposterior relationship of the dental arches.

- **Class I malocclusion** (neuroocclusion): Characterized by a normal relationship between the dental arches where the mesiobuccal cusp of the maxillary first permanent molar occludes into the buccal groove of the mandibular first permanent molar. A Class I malocclusion is presented as an internal derangement (e.g., crowding) in one of the arches.
- **Class II malocclusion** (distoocclusion): Characterized by an interarch relationship where the mandibular dental arch is positioned posterior to the maxillary arch. The mandibular first molar is distal to the position seen in neuroocclusion.
- **Class II, Division 1 malocclusion:** The maxillary incisor teeth are in labioversion.
- **Class II, Division 2 malocclusion:** The maxillary central incisors are in linguoversion.
- **Class III malocclusion** (mesioocclusion): The mandibular dental arch is positioned anterior to the maxillary arch. The mandibular first molar is located mesial to the position seen in neuroocclusion.

angle of gingival convergence: According to Schneider, the angle of gingival convergence is located apical to the height of contour on the abutment tooth. It can be identified by viewing the angle formed by the tooth surface gingival to the survey line and the analyzing rod or undercut gauge in a surveyor as it contacts the height of contour.

angled abutment: 1. See: Angulated abutment. 2. A dental implant abutment that

diverges away from the long axis of the implant fixture.

angled/angulated abutment: Prosthetic implant component designed to change direction from parallel along the long axis of the implant to a specified angle from parallel.

angled/angulated implant: Relative position of an implant to other adjacent implants or natural dentition.

angular cheilitis: 1. See: Cheilitis, angular. 2. Inflammation of the angles of the mouth causing redness and the production of fissures, also called perleche.

angulated abutment: Any endosteal dental implant abutment which alters the long axis angulation between the dental implant and the angulated dental implant abutment.

angulated abutment: (syn): Angled abutment. Abutment with a body not parallel with the long axis of the dental implant. It is used when the implant is at a different inclination in relation to the proposed prosthesis. See: Nonangulated abutment.

animal model: Use of animals in biomedical research for conducting experiments. The quality, species, and breeding of the animal can help establish the type of animal to be used in the experiment.

anisotropic implant surface: Implant surface that is not isotropic and may have different characteristics when measured or loaded in a different direction.

anisotropic surface: Surface with a directional pattern. See: Isotropic surface.

ankyloglossia: Partial or complete fusion of the tongue with the floor of the mouth or the lingual gingiva due to an abnormally short, midline lingual frenulum, resulting in restricted tongue movement and speech impediments; may be complete or partial. Also known as adherent tongue, lingua frenata, and tongue-tie.

ankylosis: 1. Joint: fibrous or bony fixation. 2. Tooth: fusion of the tooth and the alveolar bone. 3. Union or fusion between two joint components or between a tooth and the alveolar bone, often resulting from traumatic destruction of the periodontal membrane.

When ankylosis is established, the tooth will gradually be replaced by bone replacement resorption. See: Functional ankylosis. 4. Immobility, fixation, consolidation and/or joining of a joint or tooth due to injury, disease, or a surgical procedure. Also spelled ankylosis.

anneal: 1. To heat a material followed by cooling in a controlled fashion to improve the material's physical properties. The process results in (1) degassing; (2) removal of internal stresses, providing the required amount of toughness, temper, or softness; and (3) driving impurities from the surface of the material. 2. To heat a material, such as gold foil, to volatilize and drive off impurities from its surface, thus increasing its cohesive properties. 3. To homogenize an amalgam alloy by heating in an oven.

anodization: Electrolytic passivation process used to increase the thickness of the natural oxide layer on the surface of a metal (e.g., titanium). During the process, a dye may be used to color a dental implant component to facilitate its recognition.

anodizing surface treatment: Surfaces of various implant-related components (e.g., abutments, screws) may be anodized to produce coloration, which assists with recognition by the clinician. Anodizing titanium with a yellow or golden color is thought to reduce the tendency for gray show-through of abutments when placed beneath thin tissues.

anodontia: Rare dental condition characterized by congenital absence of all teeth (both deciduous and permanent). Compare: Hypodontia, Oligodontia.

anomaly: A deviation from the usual form, location, or arrangement of a structure.

anorganic bone matrix (ABM): Xenogenic or allogenic bone substitute derived from the mineral portion of bone and used for intraoral grafting procedures. By chemical and physical processes, sterilized osteoconductive deproteinized particles are obtained with a porous, crystalline structure, and chemical composition is similar to normal bone.

anorganic bovine bone matrix (ABBM): Xenogenic bone substitute derived from the mineral portion of bovine bone and used for intraoral grafting procedures. By chemical and physical processes, sterilized osteoconductive deproteinized particles are obtained with a porous, crystalline structure, and chemical composition is similar to normal bone.

ANOVA (abbrev.): Analysis of variance.

antagonist: 1. A tooth in one jaw that articulates with a tooth in the opposing jaw, also called dental antagonist. 2. A substance that tends to nullify the actions of another, such as a drug that binds to cell receptors without eliciting a biologic response. 3. A muscle whose action is the direct opposite of another muscle.

anterior: 1. In front of or the front part; situated in front of. 2. The forward or ventral position. 3. A term used to denote the incisor or canine teeth or the forward region of the mouth.

anterior guidance: 1. The influence of the contacting surfaces of anterior teeth on tooth limiting mandibular movements. 2. The influence of the contacting surfaces of the guide pin and anterior guide table on articulator movements. For usage see: Anterior guide table. 3. The fabrication of a relationship of the anterior teeth preventing posterior tooth contact in all eccentric mandibular movements. See: Anterior protected articulation, Group function, Mutually protected articulation.

anterior guide: See: Anterior guide table.

anterior guide pin: The rigid part of an articulator that is attached to one member and contacts the anterior guide table found on the opposing member. It is used to (1) establish the predetermined vertical dimension, (2) prevent wear and fracture of mounted cast's teeth, and (3) provide guidance (in conjunction with the guide table and condylar elements of the articulator) for the horizontal movements of the articulator's separate members.

anterior guide table: A flat adjustable device in one member of the dental articulator

that receives the guide pin of the other member and establishes a base for recreating anterior guidance.

anterior loop: Anatomic phenomenon of the mental nerve that is a continuation of an anterior loop beyond the mental foramen. Attention should be paid to this potential anatomic variation during implant treatment planning. Often anterior loops cannot be identified by radiographic examination. A distance of 4–5 mm anterior to the mental foramen has been recommended.

anterior nasal spine: Triangular pointed projection at the anterior extremity of the intermaxillary suture. It may serve as a source of autogenous bone for intraoral grafting procedures.

anterior open bite: See: Anterior open occlusal relationship.

anterior open occlusal relationship: The lack of anterior tooth contact in any occluding position of the posterior teeth.

anterior open occlusion: An absence of contact of opposing anterior teeth or their substitutes in any jaw positions.

anterior programming device: A custom-made device placed between the opposing anterior teeth to separate them and eliminate their influence on the naturally programmed jaw muscles with the intent of deprogramming the muscles and, therefore, changing the habitual jaw position to a more physiological position. See: Deprogrammer.

anterior protected articulation: A form of mutually protected articulation in which the vertical and horizontal overlap of the anterior teeth disengages the posterior teeth in all mandibular excursive movements. See: Canine protected articulation.

anterior reference point: Any point located on the midface that, together with two posterior reference points, establishes a reference plane.

anterior superior alveolar nerve: Branch of the infraorbital nerve arising within the infraorbital canal. It initially runs laterally within the sinus wall and then curves medially to exit the infraorbital foramen. It supplies the maxillary anterior teeth.

anterior teeth: The maxillary and mandibular incisors and canines.

anteroposterior curve: The anatomic curve established by the occlusal alignment of the teeth, as projected onto the median plane, beginning with the cusp tip of the mandibular canine and following the buccal cusp tips of the premolar and molar teeth, continuing through the anterior border of the mandibular ramus, ending with the anterior most portion of the mandibular condyle.

anteroposterior (AP) spread: Distance from a line drawn between the posterior edges of the two most distal implants in an arch and the midpoint of the most anterior implant in the arch. This measurement is used to calculate the maximum posterior cantilever length of the prosthesis, which is usually 1.5 times the AP spread.

Ante's Law (Irwin H. Ante): Eponymous term that postulates that the in-bone root surface of the supporting teeth for a fixed partial denture should be equal to or greater than the in-bone surface area of the missing tooth or teeth being replaced. Additionally, the in-bone root surface of a removable partial denture abutment tooth or teeth plus the mucosal area of the supporting soft tissue should equal the in-bone surface area of the teeth being replaced.

antibacterial spectrum: The range of bacterial species that is susceptible to a drug (natural, semi-synthetic, or synthetic), resulting in bacterial cell death or inhibition of bacterial growth.

antibiotic: Molecules or agents produced by microorganisms that have the capacity to kill or inhibit the growth of other microorganisms.

antibiotic prophylaxis: Administration of an antibiotic prior to a surgical procedure (e.g., sinus graft) in order to prevent or reduce the incidence of postoperative infection. In patients with a risk of endocarditis, a standard protocol is recommended for certain dental procedures. See: Antibiotic.

antibody: Serum proteins that are induced following interaction with an antigen. They bind specifically to the antigen that induced their formation thereby

causing or facilitating the antigen's neutralization. See: Immunoglobulin.

anticoagulant: Any substance or agent that inhibits or prevents the coagulation of blood.

antigen: Any substance recognized by the immune system that induces antibody formation.

antiinflammatory: The property of a substance or treatment that reduces inflammation. See: Corticosteroids, Nonsteroidal antiinflammatory drug.

antimicrobial therapy: The use of specific agents for the control or destruction of microorganisms, either systemically or at specific sites.

antiplaque agent(s): Chemical compounds that alter plaque formation by either directly killing bacteria within biofilms or by modulating pathways associated with biofilm formation.

antirotation: A structural feature of some endosteal dental implant components that prevents relative rotation of fastened parts. This feature may exist between a dental implant body and the dental implant abutment, and/or the dental implant abutment and dental implant abutment element(s). See: Stack.

antiseptic: An agent that inhibits the growth and development of microorganisms.

antral floor: Inferior bony wall of the maxillary sinus cavity. See: Maxillary sinus floor.

antral floor grafting: See: Maxillary sinus floor elevation.

antral mucosa: See: Schneiderian membrane, Maxillary sinus membrane.

antral polyp: Multilocular, pendulous, irregularly shaped edematous space usually associated with rhinosinusitis.

antral septum: See: Septum (maxillary sinus).

antrolith: Calcified mass found in the maxillary sinus, resulting from the complete or partial encrustation of a foreign body (e.g., retained root).

antroscope: An instrument for illuminating and examining the maxillary sinus.

antroscope: Inspection of an antrum using an antroscope.

antroscopy: The surgical opening of an antrum for purposes of drainage or grafting. See: Sinus graft.

antrum: Based on Greek *antron* meaning “cave,” a cavity or chamber in the body, often within bone. See: Sinus: Maxillary cavity of Highmore.

antrum of Highmore: See: Maxillary sinus.

apatite: Calcium phosphate of the composition $\text{Ca}_5(\text{PO}_4)_3\text{OH}$; one of the mineral constituents of teeth and bones (with CaCO_3).

apertognathia: An occlusal relationship where opposing teeth are not in contact (i.e., an anterior open bite).

aperture: An opening or orifice.

apex: Anatomic end of a tooth root or root-form implant.

aphagia: Inability to swallow; abstention from eating.

aphasia: Defect or loss of the power of expression by writing, speech or signs, or of comprehending written or spoken language due to disease of or injury to the brain.

aphonia: Loss or absence of voice as a result of the failure of the vocal cords to vibrate properly.

aphtha (plural: aphthae): An ulcer of the oral mucous membrane occurring exclusively on movable tissue.

apical: Referring to, or in the direction of, a root apex. See: Apex.

apical (retrograde) periimplantitis: See: Implant periapical lesion.

apical abscess: A localized collection of pus and inflamed tissue located at or around the apical end of a tooth.

apical curettage: See: Curettage.

apically positioned flap: A flap sutured in a direction apical to its original presurgical position. See: Coronally positioned flap.

apicoectomy: Intentional surgical excision of the apical end of a tooth root.

aplasia: Incomplete development of an organ or tissue. Congenital absence may be characteristic.

aplastic: Without development; not forming.

apoptosis: Morphologic pattern of cell death affecting single cells and marked by shrinkage of the cell, condensation of chromatin,

formation of cytoplasmic blebs, and fragmentation of the cell into membrane-bound apoptotic bodies that are eliminated by phagocytosis.

appliance: See: Device, Restoration, Prosthesis.

appositional bone growth: See: Bone modeling.

approximation: The state of being near or close together, as in root approximation.

AP spread (abbrev.): Anteroposterior spread.

arachidonic acid: A 20-carbon essential fatty acid that contains four double bonds (5, 8, 11, 14- eicosatetraenoic acid); the precursor of prostaglandins, prostacyclins, thromboxanes, and leukotrienes.

arch: Bony arc formed by the maxillary or mandibular teeth or residual ridge when viewed occlusally.

arch bar: A rigid bar or wire used to stabilize teeth and implants and used for intraarch fixation in the treatment of fractures of the maxilla or mandible.

arch, dental: The curved composite structure of the natural dentition and the alveolar ridge, or the residual bone after the loss of some or all of the natural teeth.

arch form: The outline of the dental arch as viewed from a horizontal plane (i.e., ovoid, square, or tapered).

arch length discrepancy: An incongruent relationship between the arch size of the maxilla or mandible and the teeth present as viewed from the occlusal plane.

architecture: A term with an appropriate modifier, commonly used in periodontics to describe gingival and/or bony form.

Physiologic a.: A concept of soft tissue or bony form that includes positive architecture in a vertical dimension, buccal-lingual contours devoid of ledges and exostoses, and interradicular grooves. **Positive a.:** When the crest of the interdental gingiva or bone is located coronal to its midfacial midlingual margins. **Reverse a.:** When the crest of the interdental gingiva or bone is located apical to its midfacial and midlingual margins.

archwire: Wire attached to two or more teeth or implants, generally used to guide or retain teeth during orthodontic therapy.

arc of closure: An elliptical or circular arc representing the mandibular path of closure.

arcon: Term derived from the words “articulator” and “condyle” describing a type of articulator that simulates temporomandibular anatomy.

arm prosthesis: Artificial replacement for part or all of the human arm. See: Somatoprosthesis.

arrow point tracer: A device that traces the pattern of mandibular movement typically parallel to the occlusal plane.

artery: Blood vessel that carries oxygenated blood from the heart to tissues and organs.

arthralgia: Pain in one or more joints.

arthritis: Inflammation of a joint or joints.

arthrodial joint: A joint that allows for a sliding motion between surfaces.

arthrodial movement: Gliding joint movement.

arthrography: 1. Roentgenography of a joint after injection of an opaque contrast material. 2. In dentistry, a diagnostic technique that entails filling the lower, upper, or both joint spaces of the temporomandibular joint with a contrast agent to enable radiographic evaluation of the joint and surrounding structures; used to diagnose or confirm disk displacements and perforations.

arthropathy: A disease of a joint.

arthroplasty: Surgical formation or restoration of a joint.

arthrosis: A degenerative disease of a joint.

articular capsule: The fibrous ligament that encloses a joint and limits its motion. It is lined with synovial membrane.

articular cartilage: A thin layer of hyaline cartilage located on the joint surfaces of some bones, not found on the articular surfaces of the temporomandibular joints which is covered with an avascular fibrous tissue.

articular disk: A ring of fibrocartilage that separates the articular surfaces of a joint.

articulating paper: Ink-coated paper strips used to locate and mark occlusal contacts.

articulating tape: Ink-impregnated paper or silk ribbon used to identify contacting occlusal or incisal surfaces.

articulation: 1. The contact relationships of mandibular teeth with maxillary teeth in excursive movements of the mandible. 2. A junction or union between two or more bones. 3. A skeletal joint.

articulator: Apparatus designed to mechanically orient the essential elements of mastication (i.e., temporomandibular joints, jaws, and teeth) in their simulated spatial relationship outside the mouth. The design is based on the degree of mandibular movement simulation desired for the development of an occlusal scheme. **Fully adjustable a.:**

Articulating instrument permitting the simulation of three-dimensional mandibular movement and capable of accepting three-dimensional jaw registration records.

Nonadjustable a.: Hinge-type instrument capable of retaining maxillary and mandibular jaw casts in an established vertical relationship while providing possible vertical motion in an arcing pattern. **Semi-adjustable a.:**

Instrument capable of simulating vertical and horizontal movement with or without temporomandibular joint orientation. Joint articular references are commonly reversed with condylar guidance developed according to mechanical equivalents based on anatomic averages. Some semi-adjustable articulators provide for temporomandibular joint orientation and may be either non-Arcon (condylar elements in the upper member) or Arcon (condylar elements in the lower member, as in the human situation).

artifact (imaging): Any feature not present in the original imaged object but that appears in a displayed image. An image artifact is sometimes the result of incorrect operation of the imager, and other times a consequence of natural processes or properties of the human body. It is important to be familiar with the appearance of artifacts because they can obscure, and be mistaken for, pathology. Artifacts may also result in a misfitted prosthesis. Therefore, image artifacts can result in false negatives and false positives.

artificial crown: A metal, plastic, or ceramic restoration that covers three or more axial surfaces and the occlusal surface or incisal

edge of a tooth artificial denture: See: Complete denture.

artificial limb: Artificial replacement for part or all of a human arm or leg. See: Somatoprosthesis.

asaccharolytic: The inability of an organism to catabolize carbohydrates. Generally relates to sugar metabolism.

asepsis: 1: Free from infection. 2: The prevention of contact with microorganisms.

aseptic: Free from infection or septic material; sterile, free from pathogenic microorganisms.

asleep: See: Sleeper implant.

Aspergillus: Fungus responsible for maxillary sinus fungal infections (aspergillosis).

astrigent: An agent that causes contraction of the tissues, arrests secretion, or controls bleeding.

asymmetrical: Characterized by or pertaining to asymmetry.

asymmetry: Absence or lack of symmetry or balance; dissimilarity in corresponding parts or organs on opposite sides of the body.

atherosclerosis: Form of arteriosclerosis characterized by the deposition of atheromatous plaques containing cholesterol and lipids on the innermost layer of the walls of large- and medium-sized arteries.

atraumatic: Not inflicting or causing damage or injury.

atraumatic extraction: The extraction of a tooth with minimal damage or injury to the surrounding hard and soft tissues.

atresia: Absence or closure of a natural body passage. May also refer to loss of a body part through degeneration. See: Congenital atresia.

atrophic: Reduced both in volume and substance. Bone loss in volume can be a reduction both in width and height, and loss of substance can mean reduction in thickness of cortical bone and width and number of trabeculae.

atrophic alveolar bone: Alveolar bone characterized by resorption after tooth removal. When functional stimulus disappears, the alveolar bone will atrophy.

atrophy: 1. A wasting away. 2. Decrease in size of a cell, organ, tissue or part, a loss of tissue from an anatomic site due to nonuse,

nonstimulation, pressure, or nutrients. See: Atrophic, Disuse atrophy, Ridge atrophy.

attached gingiva: Firm, dense, and often stippled soft tissue that is tightly bound to underlying periosteum, bone, or a natural tooth. See: Gingiva, attached.

attachment: 1. A mechanical device used for fixing, retaining, and stabilizing a dental prosthesis. 2. A retainer that is made of a metal receptacle and a part that fits precisely. The former (the female [matrix] component) is most often contained inside the normal or extended crown contours of the abutment tooth and the latter (the male [atrix] component) is attached to the denture framework or a pontic. Consists of one or more parts, made of titanium, gold, or plastic.

attachment activating tool: See: Activating tool.

attachment apparatus: The anatomic complex around a tooth consisting of the cementum, alveolar bone, and periodontal ligament.

attachment element: Part of the prosthetic component made as a separate unit fitting onto the transmucosal element. "If there is no separate attachment element, the restoration is part of and fabricated with the retentive element." It is the element onto which the restoration is fabricated as cast-to, cemented, or screwed into position.

attachment level: Relative distance from a fixed reference point on a tooth or dental implant to the tip of the periodontal probe during soft tissue diagnostic probing. Health of the attachment apparatus can affect the measurement. See: Clinical attachment level.

attachment level, clinical: When a clinician is performing a periodontal diagnostic probing, it is the distance measured from the end of a periodontal probe to the cementoenamel junction of the tooth being examined. The measurement is an indicator of the health of the supporting soft tissue attachment apparatus. The health of the attachment apparatus can affect the measurement. See: Attachment level, relative.

attachment level, relative: When a clinician is performing periodontal diagnostic

probing, it is the distance measured between the end of the periodontal probe and a set reference point on the tooth of interest or a stent. The measurement is an indicator of the health of the supporting soft tissue attachment. The health of the attachment apparatus can affect the measurement. See: Attachment level, clinical.

attachment, new: The union of connective tissue or epithelium with a root surface that has been deprived of its original attachment apparatus. This new attachment may be epithelial adhesion and/or connective adaptation or attachment and may include new cementum.

attachment-retained: Use of a mechanical device for the retention of a prosthesis to an abutment or transmucosal portion of a one-part implant. See: Attachment, Cement-retained, Friction-retained, Screw-retained.

attachment screw: Any component used to secure a fixed dental prosthesis to the dental implant abutment(s), an element directly relating to the specific prosthetic component to which it attaches. Typically, the prosthetic component is seated, and the attachment screw is threaded through the prosthetic component into another component in the implant system, such as the implant. It can be manufactured of various materials, such as gold alloy or titanium. See: Abutment screw.

attachment selection: A step in the prosthodontic treatment whereby a decision is made regarding the type of attachment to be used in the prosthesis based on implant angulation, interarch space, soft tissue (mucosal) height, and amount of retention needed.

attachment system: Design of a particular type of retentive mechanism employing compatible matrix and patrix corresponding components. Matrix refers to the receptacle component of the attachment system, and patrix refers to the portion that has a frictional fit and engages the matrix. Corresponding components are passive once engaged and offer resistance to displacement either through a direct mechanical mechanism or a frictional fit.

attenuation of radiation: The reduction in intensity of radiation as a result of scattering and absorption of radiation.

attrition: 1. The action of weakening and/or wearing down by rubbing or friction. 2. The mechanical deterioration and erosion of the occlusal surfaces of the teeth as a consequence of chewing or parafunction.

atypia: Not conforming to type; irregular.

atypical facial pain: A painful syndrome characterized by dull aching or throbbing, rather than paroxysms of pain, such as seen in trigeminal, glossopharyngeal, or postherpetic neuralgia, occurring in areas supplied by various nerve groups, including the fifth and ninth cranial nerves and the second and third cervical nerves. The distribution of atypical facial pain does not follow the established pathways of innervation of the major sensory nerves, however (i.e., trigeminal neuralgia). Attacks last from a few days to several months and often occur after dental care or sinus manipulation, but examination of the teeth, nose, sinuses, ears, and temporomandibular joints seldom reveals any abnormalities. A psychogenic or vascular etiology has been suggested.

augment: To make greater, more numerous, larger, or more intense.

augmentation: 1. The act of enlarging or increasing, as in size, extent, or quantity, beyond the existing size. See: Bone augmentation. 2. Grafting procedure designed to increase the volume of existing tissues, usually referring to bone for the purpose of adequate bony support around implants and/or improving tissue contours for esthetic purposes; also in alveolar ridge augmentation, bone grafts or alloplastic materials are used to increase the size of an atrophic alveolar ridge.

auricular prosthesis: Fixed/removable artificial replacement for all or part of a human ear.

auriculotemporal syndrome: A congenital or acquired condition (especially after surgery on the parotid gland) characterized by sweating and flushing in the periauricular and temporal areas when certain foods are eaten.

Also known as Frey's syndrome, Baillarger's syndrome, or Dupny's syndrome.

auscultation: The process of determining the condition of various parts of the body by listening to the sounds they emit.

autocrine: Transfer of chemical compounds as hormones and growth factors within the cell.

autogenous: Originating or derived from within the same subject; not derived from an external source; self-produced, autologous, endogenous.

autogenous bone graft: Bone graft, taken from an intraoral or extraoral site and placed in the same individual. Origin of the graft will determine whether it is cortical, corticocancellous, or cancellous in nature. Particulate grafts may be harvested with hand instruments or prepared by introducing chips into a bone mill. Block grafts can be harvested when a cortical component exists (i.e., symphysis, ramus buccal shelf, calvarium, or iliac crest), when volume is not sufficient, and/or if there is a need to retard resorption. Autogenous bone grafts are often mixed with allografts, alloplasts, or xenografts. Also called autograft or autotransplant.

autogenous graft: Tissue taken from the patient's own body and moved to a different site from its origin. Also called autograft or autotransplant. See: Autogenous bone graft, Bone graft, Soft tissue augmentation.

autoglaze: The creation of a glazed surface on a ceramic restoration by increasing the firing temperature to generate surface flow. Also called overglaze.

autograft: A tissue graft taken from a site that is different from the recipient site of the same individual receiving it. Also called autochthonous graft, autologous graft, autotransplant, and autoplast. See: Graft.

autoimmunity: An immune response to an organism's own tissues or components.

autologous: 1. Pertaining to self; defining products or components derived or transferred from one anatomic location to another within the recipient. 2. Autogenous.

autologous bone: See: Autogenous bone graft.

autologous graft: See: Autogenous graft.

autologous mixed lymphocyte reaction: A proliferative reaction of normal typical T lymphocytes when co-cultured with autologous HLADR-positive non-T lymphocytes.

autopolymer: A resin polymerized by a chemical reaction that occurs by adding an activator and a catalyst without adding heat.

autopolymerizing resin: Resin capable of polymerization via a chemical activator and catalyzing agent. Also called cold- or self-curing resin.

autoradiography: Photographic recording of radiation from radioactive material obtained by placing the surface of the radioactive material in proximity to a detector sensitive to the emitted spectrum, most commonly X-ray film or a charge coupled device.

available bone: Portion of an edentulous ridge that can be used for the placement of a dental implant.

avascular (nonvascular): Lacking in blood or lymphatic vessels. Avascular tissues may be normal, such as tooth enamel or some forms of cartilage, or may be a consequence of disease.

avascular necrosis: Cell death that occurs as a result of inadequate blood supply.

average axis facebow: A device that transfers the relationship of the maxilla and the mandibular axis of rotation to an articulator by recording standard anatomic landmarks for determining the transverse horizontal axis of the face.

average value articulator: An articulator that permits motion based on three mean mandibular measurements: an intercondylar distance of 10–11 cm, a condylar guidance of 33°, and an incisal guidance of 9–12°. Also known as a mean value articulator or Class III articulator.

avulsion: A forced and aggressive separation from the body; the action that results in a separation of a body part surgically or accidentally. See: Evulsion.

avulsion fracture: A separation of bone (or portion of bone) from its naturally occurring position by trauma or unintended force(s).

axial contour: The shape of a body in the dimension of its long axis. For teeth, it is the

outline of the vertical portion of a tooth from the cemento-enamel junction to its height of contour.

axial inclination: 1. The relationship of the long axis of a body to a designated plane. 2. In dentistry, the angle made by the long axis of a tooth, dental implant, or other object (i.e., implant guide pin) as it relates to a specified horizontal plane, such as the supporting bone or occlusal plane.

axial loading: Application of load, usually by the forces of occlusion, in the direction of the long axis of an implant body or tooth. Compare: Nonaxial loading.

axial reduction: Removal of tooth structure or its prosthetic equivalent (i.e., implant abutment) along its ideal long axis. The location and amount of reduction depend on the reason for altering or preparing. Compare: Incisal reduction, Occlusion reduction.

axial slice: A thin section from computed tomography scan data (usually 0.125–2.0 millimeters thick) transverse to the patient's length axis, ideally parallel to the plane of occlusion. See: Cross-sectional slice, Panoramic reconstitution.

axial surface: The exterior of a body that is oriented in its long axis.

axial wall: 1. The side of a body that is in its long axis. 2. In dentistry, the surface of a tooth preparation that is in its long axis.

axis: 1. A real or imaginary straight line passing through the center of a body, such as the mandible. 2. Long axis of a tooth – the central lengthwise line through the crown and the root. 3. A real or imaginary straight line around which a body may rotate.

axis of preparation: The prepared or intended path of insertion and removal for a dental restoration as it relates to its axial surface.

axis orbital plane: The horizontal imaginary line or plane determined by the transverse horizontal axis of the mandible as it correlates with the palpated lowermost point found at the inferior margin of either the left or right bony orbit (orbitale). This plane is used as a horizontal orientation point to position teeth and/or dental implants in the ideal horizontal position in relation to the temporomandibular joint and face.

axonotmesis: Nerve injury with loss of axonal continuity, but with maintenance of the myelin sheath. Sensory and/or motor functions are impaired. Recovery may occur after 1–3 months. It may be caused by a drill violating the mandibular canal, an anesthetic needle penetrating the nerve trunk, or excessive reflection. See: Neurapraxia, Neurotmesis.

azalide: New generation of macrolide derivatives with improved pharmacokinetic properties, tissue penetration, and activity against many gram-positive and gram-negative bacteria. See: Azithromycin.

azithromycin: An azalide antibiotic which inhibits bacterial protein synthesis, and is effective against a wide range of gram-positive, gram-negative, and anaerobic bacteria. It is used in the treatment of mild to moderate infections caused by susceptible organisms, and may be administered orally and intravenously. See: Azalide.

