Glossary of terms used in endodontics

a cura del Dr. Lucio Uccellini
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ABSCESS
a circumscribed collection of suppuration (pus) in tissue.

ACUTE APICAL
a. (acute alveolar abscess, acute periapical a., alveolar a., dentoalveolar a.) An acute inflammatory reaction involving the tissues that surround the apical portion of a tooth characterized by acute pain. Tenderness of the tooth to touch and pressure, rapid onset. Pus formation, and swelling of tissues at a later stage

CHRONIC APICAL
a. (see periodontitis suppurative apical p.).

ABSORBENT POINT
(see point, absorbent.)

ACCESS
(see root canal, r.c. Access)

ACCESSORY CANAL
(see canal, accessory e.)

ACCESSORY FORAMEN
(see foramen, accessory f.)

ACUTE APICAL PERIODONTITIS*
(see periodontitis. Acute apical p.)

AERODONTALGIA
pain arising from a reduction of environmental air pressure, such as that which may occur during high-altitude flying or during confinement in a decompression chamber.

AH 26
an epoxy resin that has been chemically modified to reduce toxicity, filled with a radiopacifier, and mixed to be used as a root canal sealer.

AMPUTATION, PULP
(see pulp, p. Ampupation)

ANESTHETIC TEST
(see test, anesthetic t.)

ANKYLOSIS
abnormal fixation and immobility of a tooth or joint due to disease or injury. This fixation of a tooth results from fusion of the cementum and alveolar bone, with obliteration of the periodontal ligament space.

APEX
as applied to a tooth, it is the tip, or end of the root, or that part farthest from the occlusal or incisal Edge of the tooth.

ANATOMIC
a. Refers to the tip or end of the root of a tooth as determined morphologically. RADIOGRAPHIC
a. Refers to the tip or End of the root of a tooth as seen on A radiograph.

Root dilacerations May cause its location and position To vary from the anatomic apex.

APEXIFICATION
the induction of apical Closure of an immature tooth in which The pulp is no longer vital, usually
by The formation of osteocementum or a similar hard tissue.

APEXOGENESIS
physiological root-end development and formation. A pulpotomy procedure allows apical closure
with deposition of dentin and cementum in a vital, incompletely developed tooth. APICAL
pertaining to the tip, such as the end of the root of a tooth A. Abscess [see abscess, acute apical
A.]

A. CONDENSING
osteitis [see condensing osteitis]
A. CONSTRICTION [see constriction, apical]
A. CURETTAGE [see curettage, apical]
A. CYST [see cyst, apical e.]
A. FORAMEN [see foramen, apical f.]
A. GRANULOMA [see periodontitis, chronic apical p.]
A. PERIODONTITIS [see periodontitis, acute apical p., chronic apical p., suppurative apical p.]
A. SCAR
a well-defined radiolucent area in bone surrounding or associated with the root apex of a tooth that
has been treated successfully by root canal therapy. The area is usually made up of collagen.

APICOECTOMY
[see root surgery, r.s. Apicoectomy]
ARTIFISTULATION [see fenestration]
ATYPICAL FACIAL PAIN [see pain, atypical facial p.]
AVULSION [evulsion] the complete separation of a tooth from its alveolus. The term is most com-
monly used in reference to dental injuries resulting from acute trauma.

B

BALSAM, CANADA [see canada balsam]
BEECHWOOD CREOSOTE [see creosote, n.f., beechwood e.]
BIFURCATION the area of a birooted tooth where the roots begin to divide from each other. In
health, the tooth is attached to the alveolar bone by the periodontal ligament within the furcation.

BIOMECHANICAL PREPARATION [see preparation, Biomechanical]
BLEACHING, CORONAL the use of a chemical agent, in combination with heat or light, to remove
internal dentinal discoloration from the crowns of teeth. A powerful oxidizing agent or substance,
such as 30% hydrogen peroxide solution. Is generally used within the pulp chamber of the devitali-
zed tooth.
BLEACHING, VITAL generally performed on teeth that have enamel and dentin discoloration due to
ingestion of tetracycline antibiotics during the last 5 months of pregnancy by the mother or early
childhood by the patient. A vital pulp is still present so that the bleaching agents are used extraco-
ronally rather than intracoronally.
BLUNDERBUSS canal [see canal, Blunderbuss e.]
BRIDGE, dentin [see dentin, d. Bridge]
BROACH, root canal [see root canal, r.c. Broach]

C

CALCIFIC DEGENERATION
[calcific metamorphosis] [see pulp, p. Degeneration, calcific p.d.]
CALCIUM HYDROXIDE
[ca(oh)2] an odorless, white powder that is slightly soluble in water and insoluble in alcohol.
Aqueous and nonaqueous suspensions of calcium hydroxide are often used as cavity liners to protect the pulp from the irritant action of restorative materials. Various calcium hydroxide pastes and mixtures are also used in pulp capping, pulpotomy, apexogenesis. And apexification procedures.

**CALLUS FORMATION**
calcified tissue at the junction of two segments of broken tooth structure of bone, as sometimes seen in horizontal root fractures.

**CAMPHORATED CLOROPHENOL,**
n.f. (see parachlorophenol)

**CANADA BALSA M**
(canadian turpentine) A viscous liquid oleoresin of plant origin, that is insoluble in water and soluble in alcohol. Used as a combining agent in root canal sealers of the Zinc oxide eugenol type.

**CANAL** a tubular passage or channel.

**ACCESSORY E.**
A lateral branching of the main root canal, usually located in the apical portion of the root and occasionally in furcation areas. Accessory canals are likely to be More numerous in young individuals because with chronologic aging some canals may become obliterated by the deposition of dentin or cementum.

**BLUNDERBUSS C.**
(everted e.) A descriptive term used to denote an incompletely formed root in which the apical diameter of the root canal is greater than the coronal diameter of the canal.

**LATERAL E.** A lateral branch of the main root canal that is approximately perpendicular to it. [See accessory e.]

**ROOT E.**
[See root canal]

**CAPPING, PULP**
[See pulp, p. capping]

**DIRECT P.C.**
[See pulp, p. capping]

**INDIRECT P.C.**
[See pulp, p. capping]

**CAVITY, PULP**
[See pulp, p. cavity]

**CELLULITIS A**
diffuse inflammation; the term usually applies to inflammation of loose connective tissue.

**CEMENT**
sealer [See root canal, r.c. sealer]

**CEMENTODENTINAL JUNCTION** [See junction, cementodentinal j.]

**CEMENTOENAMEL JUNCTION** [See junction, cementoenamel j.]

**CEMENTOMA A**
benign dysplasia of unknown origin in which the bone about the apices of vital teeth is replaced first by a fibrous type of connective tissue and then by an osteocementoid tissue; sometimes referred to as penapical osteofibrosis, ossifying fibroma, periapical fibrous dysplasia, and penapical cemental dysplasia.

**CHAMBER, PULP**
[See pulp, p. chamber] chelation In endodontics, the term denotes the removal of calcium ions from tooth structure by a chemical agent, which then combines with these ions to form a new compound known as a calcium chelate.

**CHELATION**
is sometimes used to help enlarge narrow root canals and remove ledges and objects from within the canals. The agent generally used in such instances is the disodium salt ethylenediaminetetraacetic acid.
CHLOROFORM, N.F. Trichloromethane. A clear, volatile, colorless liquid used in endodontic therapy as a solvent for gutta-percha and cements of the zinc oxide-eugenol type. When combined with gutta-percha, it is known as chloropercha and is used for filling root canals.

CHLOROPERCHA A paste made by dissolving gutta-percha in chloroform, used as a sealer in filling root canals. The consistency of the paste is determined by the ratio of gutta-percha to chloroform.

CHRONIC ALVEOLAR ABSCESS [See periodontitis, suppurative apical p.]

CHRONIC APICAL PERIODONTITIS [See periodontitis, chronic apical p.]

CHRONIC HYPERPLASTIC PULPITIS [See pulp, p. hyperplasia]

CHRONIC PERiapICAL ABSCESS [See periodontitis, suppurative apical p.]

CLAMP, RUBBER DAM [See dam, r.d. clamp]

CLAMP FORCEPS [See dam, r.d. clamp forceps]

CLOVE OIL U.S.P. A volatile oil distilled from clove. It has germicidal and anesthetic properties. Because it contains 85% eugenol, it can be substituted for eugenol in zinc oxide cement mixtures or used as an anodyne in exposed or nearly exposed pulps. It is a basic ingredient in the liquid of several popular root canal sealers.

CONDENSING OSTEITIS [sclerosing osteomyelitis], [apical condensing osteitis, periapical osteosclerosis, pulpoperiapical osteosclerosis] A diffuse condensation of bone that manifests itself as a radiopaque periapical mass related to the root apex of a tooth having a necrosed or chronically inflamed pulp, or to the extraction site of such a tooth.

CONSTRUCTION, APICAL That area of the apical portion of the root canal having the narrowest diameter. It may be associated with the cementodentinal junction, cementum alone, or with dentin alone. It is usually considered to be from 0.5 mm to 1.0 mm short of the apical foramen.

CORONAL BLEACHING [See bleaching, coronal]

CRACKED TOOTH SYNDROME [See syndrome, cracked tooth s.]

CREOSOTE, N.F. Wood creosote. A colorless or pale yellow, oily liquid obtained from wood tar. It possesses good germicidal properties and has a disagreeable, penetrating, smoky odor.

BEECHWOOD C. A colorless or pale yellow liquid obtained by the distillation of beechwood. It has a strong smoky odor. A strong, nonspecific germicidal agent which has been used as an intracanal medicament.

CRESOL, N.F. Derived from coal tar wood tar. A colorless liquid, with aphenolic odor, that darkens exposure to light. Its germicidal power is four times greater than that of phenol and it is slightly less toxic. It has been used for the disinfection of root canals either alone or combination with formalin [See formocresol].

CULTURE The growth of microorganisms or of living tissue cells in special media.

C. MEDIUM A substrate for the cultivation of microorganisms or of living cells. root canal e. (See root canal, r.c. culture)root canal e. incubation (See root canal, r.c. culture)

ROOT CANAL E. medium (See root canal, r.c. culture medium)

CURETTAGE, APICAL [periapical] A surgical procedure to remove diseased tissue from the alveolar bone in the apical region of a pulpless tooth.

CYST A pathologic entity composed of a sac or cavity, lined by epithelium, usually containing a fluid or semisolid material. and formed within tissue substance or in a body cavity.

APICAL C. A cyst in bone at the apex of a pulpless tooth. It is believed that such cysts arise after the death of the pulp from noxious physical, chemical, or bacterial stimulation of the epithelial rests of Malassez.

DENTIGEROUS C. An odontogenic cyst that develops around the crown of an unerupted tooth after amelogenESIS has
been completed.

FISSURAL C.  
(inclusion e.) A cyst that develops along any of the lines of merging or fusion of the embryonic swellings surrounding the primitive oral cavity [stomodeum], e.g., incisive canal c., median mandibular c., median palatal c., nasolabial c.

LATERAL C. A cyst that forms along the lateral surface of a tooth root. This term has been used to describe two distinct pathologic entities. The first is a cyst that arises secondary to pulpal pathosis and is of inflammatory origin. The second is a cyst that occurs in the lateral periodontal ligament of a vital tooth, and is of unknown etiology.

ODONTOGENIC C. A class of cysts derived from odontogenic epithelium. Primordial, dentigerous, periodontal and gingival cysts fall into this classification.

PERIODONTAL C. A cyst that arises from remnants of Hertwig’s epithelial root sheath, e.g., apical e., lateral e., and residual e.

PRIMORDIAL C. A cyst that forms within the dental organ when the stellate reticulum degenerates. The epithelial lining of this cyst is derived from the inner and outer enamel epithelium. Histologically, primordial cysts are often odontogenic keratocysts.

PSEUDOCYST A pathologically expanded or abnormal space that resembles a cyst, but lacks an epithelial lining, e.g., traumatic bone e., mucous retention e., residual e. Any cyst in the jaws that remains or forms after the tooth with which it was once associated has been removed.

TRAUMATIC BONE E. (simple bone e., idiopathic bone e., hemorrhagic bone e., extravasation e.) A cavity in bone that is not lined by epithelium [hence not a cyst but a pseudocyst], containing a small amount of fluid, shreds of necrotic blood clot or no formed elements. Teeth associated with this lesion have vital pulps unless pulpal vitality has been lost due to an unrelated cause.

DAM A barrier to obstruct the passage of fluids, such as saliva.

RUBBER D. A section of rubber sheeting in which a hole or several holes are punched, used to isolate a tooth or teeth from the environment of the oral cavity; and to maintain a dry, more visible, and surgically clean operative field.

R.D. CLAMP A spring metal device that is placed on the cervix of the tooth to hold the dam in place and keep it from slipping off the tooth. r.d. clamp forceps An instrument for engaging the notches or holes in the flange of a rubber dam clamp in order that the clamp may be placed on a tooth.

R.D. FRAME A plastic or metal device designed to hold the rubber dam in place against the face and to secure the edges of the rubber dam away from the operative site.

R.D. PUNCH A special plier punch for punching holes in rubber dam sheeting.

DEAD TOOTH An inaccurate term frequently used by laymen to describe a pulpless tooth. The term is inappropriate because a tooth is not “dead” as long as the cementum of the root is vital and the root is attached to alveolar bone by means of a vital periodontal ligament. Similarly, the term “nonvital tooth” in reference to pulpless teeth is also inaccurate.
DEAD TRACTS
Dentin areas characterized by empty dentinal tubules, the result of degeneration of odontoblast processes.

DEBRIDEMENT The removal of foreign matter including devitalized tissue in or around a wound.

ROOT CANAL D.
The progressive elimination of organic and inorganic debris within the root canal by mechanical instrumentation, chemical means, or a combination of both.

DEBRIS
Remnants or particles of foreign matter, the result of a breakdown of tissues or other substances.

ORGANIC D.
The accumulation of organic remnants and breakdown products of proteins usually due to the activity of microorganisms.

DECALCIFICATION
The removal of calcium or calcium salts from bone or teeth.

DEFECT, OPERATIVE BONE Incomplete regeneration of bone after periapical surgery, particularly when a bony defect results, which involves both the labial and/or lingual cortical plates of bone as well as the cancellous bone in between. Such defects are usually repaired by fibrous connective tissue (scar tissue) rather than by bone.

DEGENERATION Deterioration; change from a higher to a lower form or type. A progressive pathologic change of tissue to a lower, less functional form, characterized by histochemical changes, the deposition of abnormal matter, or a combination of both. A wide variety of different pathologic tissue changes are included in the category of degeneration, e.g., adipose (fatty) d., atrophic d., calcific d., fibrous d., hyaline d.

PULPAL D.
(See pulp, p. degeneration)

DENS IN DENTE
A commonly used misnomer for dens invaginatus (See dens invaginatus).

DENS INVAGINATUS
(dens in dente) A developmental defect resulting from invagination of the crown before calcification has occurred. Clinically, it may appear as an accentuation of the lingual pit in anterior teeth. In its more severe form, it gives the appearance radiographically of a tooth within a tooth, hence the term “dens in dente.” Although dens invaginatus may occur in any tooth in the dental arch, it is most common in the maxillary lateral incisors.

DENTAL GRANULOMA
(See periodontitis, chronic apical p.)

DENTAL SAC
That part of the dental primordium that is derived from neuroectoderm and is responsible for the production of cementum and periodontal ligament. It begins as a marginal condensation in the ectomesenchyme surrounding the enamel organ and dental papilla.

DENTICLE, PULP (See stone, pulp)

DENTIGEROUS CYST (See cyst, dentigerous e.)

DENTIN
A mineralized tissue that forms the bulk of the crown and root of the tooth, giving to each its characteristic form. It surrounds "the coronal and radicular pulp forming the walls of the pulp chamber and root canals. Its composition is approximately 67% inorganic, 20% organic, and 13% water."

"DENTIN BLUSH"
Red to pink discoloration of dentin due to pulpal haemorrhage, usually as a result of trauma or operative procedures with insufficient coolants.

D. BRIDGE
A scarlike deposit of reparative dentin or other calcific substance that provides closure of an exposed pulp or forms across the excised surface of a pulp after pulpotomy. It is believed to be encouraged by certain chemical agents, such as calcium hydroxide.

D. CHIPS
Small fragments or filings of dentin that may be found in the pulp cavity, usually as a result of instrumentation procedures in root canal therapy.

INTERGLOBULAR D. Universalised or hypomineralized areas in dentin found primarily in the crown near the dentinoenamel junction. Mineralization of the dentin may begin in small globular areas that fuse to form a uniformly calcified layer. When fusion fails to occur, interglobular dentin is created.

INTERGLOBULAR D. The calcified dentinal matrix that is found external to the peritubular dentin and comprises the main body of dentin. The intertubular dentin is not as highly calcified as the peritubular dentin and consists of large numbers of fine collagen fibrils enveloped in an amorphous ground substance.

IRREGULAR D. [See reparative d.]

IRRITATION D. [See reparative d.]

MANTLE D. The first portion of dentin formed beneath both the enamel and the cementum. It contains variable amounts of coarse fibril bundles, [Von Korff's fibrils] that are arranged at right angles to the dentinal surface.

PERITUBULAR D. The narrow (1mm wide) strip of dentin immediately around the lumen of each dentinal tubule. Peritubular dentin is composed of a highly calcified, delicate fibrillar matrix.

PRIMARY D. The dentin formed during tooth formation, having an organized pattern of tubules and cell processes. Nearly all of the primary dentin is deposited before tooth eruption.

REPARATIVE D. [Irregular d., irregular secondary d., irritation d., reactive d., tertiary d., osteodentin] Dentin produced in response to intense irritation, such as deep caries or extensive restorative procedures. This dentin is usually formed subjacent to the irritated zone but may be found in apical areas. Its tubules are irregular, tortuous, reduced in number, or may be absent. Mineralization is irregular and deficient. Cellular inclusions may be evident.

SCLEROTIC D. [See transparent d.]

SECONDARY D. Dentin completed after tooth formation and in response to mild stimulation (mastication, mild thermal and chemical irritants, minimally traumatic restorative procedures, etc.). The tubular pattern is regular but usually fewer tubules are evident. The secondary dentin is separated from the primary dentin histologically by a hyperchromatic line or demarcation zone.

TERTIARY D. [See reparative d.]

TRANSPARENT D. [sclerotic d.] Dentin in which the dentinal tubules are obliterated by deposits of calcium salts; so named because it appears transparent in ground sections.

TUBULAR D. The regular dentin or predentin that contains dentinal tubules arranged in an orderly pattern. The term “tubular dentin” is used to discriminate regular dentin from the amorphous calcified tissue seen in reparative (tertiary) dentin.

DENTAL Pertaining to dentin.

D. TUBULE A space in the dentin matrix that houses the odontoblastic process of an odontoblast. In the crown and cervical region of the tooth, the tubules traverse the dentin in an S-shaped curve from the odontoblastic layer to the dentinoenamel or dentinocemental junction. In the root, the tubules are relatively straight, running in a horizontal plane from the odontoblastic layer to the dentinocemental junction. The dentinal tubule has a diameter of 34mm at its pulpal end and decreases to about 1mm at the dentinoenamel or dentinocemental junction. The number of dentinal tubules is between 30,000 and 75,000 per square mm of dentin.

DENTINOBLAST [See odontoblast]
DENTINOCLAST
A cell which is involved in the resorption of dentin. Cytomorphologically it is indistinguishable from an osteoclast.

DENTINOCEMENTAL JUNCTION
[See junction, cementodentinal j.]

DENTINOGENESIS
The formation of dentin.

DENTINOID Resembling dentin. Predentin is sometimes termed "dentinoid."

DENTOALVEOLAR ABSCESS
[See abscess, acute apical a.]

DESENSITIZE To make less sensitive by eliminating or subduing the painful response of exposed vital dentin to irritational agents or thermal changes, thereby reducing pulpal irritation. The term also refers to the reduction" or abolition of allergic reactions to a specific allergen.

DCVLTLALIZATION
The deprivation of vitality or life.

PULP D.
The destruction of the vitality of the dental pulp.

DEVITALIZE
To deprive of vitality or life, such as the vitality of the dental pulp.

DIFFUSION
The action whereby particles of liquids or gases are permitted or caused to spread freely. D.

TECHNIQUE
[See root canal filling methods, Callahan m., Johnson’s modification m.]

DILACERATION
A deformity characterized by displacement of the crown of a tooth from its normal alignment with the root, usually resulting from an injury during tooth development. Through common usage, the definition now also includes sharply angular or deformed roots, as may result from insufficient space for root development.

DIRECT PULP CAPPING
[See pulp, p. capping]

DISCOLORATION, TOOTH
An alteration in the color, hue, chroma or translucent quality of a tooth resulting from exogenous or endogenous pigments. Restorative filling materials, medicaments, certain oral medications, foods and drinks, as well as faulty endodontic technique may be responsible for exogenous staining. Endogenous staining may be caused by the ingestion during tooth development, both pre and postpartum, of tetracycline or excessive fluoride; haemorrhage, or the breakdown products of pulp necrosis.

DOWEL
A post or pin usually made of metal, which is fitted into the root canal of a tooth previously treated by root canal therapy. The post or pin is usually used in combination with an artificial crown or restoration and provides necessary retention to hold the crown in place.

DRAIN
A tube, wick, or other material placed in a wound, sore, abscess, or body cavity in such a way that an avenue of escape is provided for pus and tissue exudates.

DENTAL D.
Gauze or rubber dam placed in a fistula or sinus to maintain drainage. Drainage The act of withdrawing fluids and discharges from a wound, sore, abscess, or body cavity.

DRESSING
Cotton, gauze, or other material, medicated or nonmedicated. applied to a wound in order to enhance repair.

ROOT CANAL D.
A medicated cotton pledget sealed in the pulp chamber or canal of a tooth for therapeutic purpo-
DRILL
A rotating cutting instrument for preparing holes or widening space in hard substances such as bones or teeth.

GATESGLIDDEN, D.
A powerdriven, flameshaped reamer with spiral cutting blades mounted on a slender shaft.

PEESO, D.
A powerdriven, long, narrow, taperedhead reamer with sidecutting spirai blades connected to a thick shank.

ORIFICE OPENER, D.
A variety of hand or powerdriven pointed instruments, shaped much like the Gates Glidden or Peeso drills, and used to widen the canal orifice for easier introduction of the enlarging instruments to follow.

DURA, LAMINA (See lamina. 1. dura)

EDTA (ethylenediaminetetraacetic acid) (See ethylenediaminetetraacetic acid [EDTA])

ELECTRIC PULP TEST (See test, pulp t.)

ELECTROGALVANISM (See galvanism)

ELECTROLYTIC MEDICATION (See electrosterilization)

ELECTROMEDICATION (See electrosterilization)

ELECTROSTERILIZATION (ELECTROLYTIC MEDICATION, ELECTROMEDICATION, IONIC MEDICATION, IONIZATION, IONTOPHORESIS, GALVANOTHERAPY)
The application of a mild direct (galvanic) current, using a suitable electrode and an antibacterial electrolyte within the root canal. As a result of dissociation of the electrolyte into negative and positive ions, greater penetration and a more antimicrobial effect are achieved.

ELECTROSURGERY
Removal of tissue by use of an electric current, sometimes used to expose sufficient coronal tooth structure to achieve adequate isolation when performing endodontic therapy.

EMPHYSEMA, SUBCUTANEOUS
An inflation of air or gas in the subcutaneous tissues. In endodontics, the injection of air or irrigating solution through the root canal into underlying tissues.

ENDODANTAL PERIODONTAL LESION
A disease process involving both the infected pulp or root canal and supporting structures of the tooth. Treatment and prognosis depend on determination of the etiology of the lesion.

ENDODONTIA
A term once used synonymously with endodontics. The term is now considered obsolete in reference to the practice of endodontics.

ENDODONTICS
That branch of dentistry which is concerned with the morphology, physiology, and pathology of the human dental pulp and periradicular tissues. Its study and practice encompass the basic and clinical sciences including the biology of the normal pulp, and the etiology, diagnosis, prevention, and treatment of diseases and injuries of the pulp and associated periradicular conditions. Included in the scope of knowledge and skill in the clinical discipline of endodontics are: the differential diagnosis of pain of pulpal and/or periapical origin as well as other maxillofacial, cephalic or chest pains referred to the oral region the control of pain emanating from the pulp and/or periapical region; treatment by pulp capping or pulpotomy as well as by pulpectomy, canal debridement and preparation, and obturation of the root canal space; selective surgical removal of pathological tissues resulting from pulpal pathosis; replantation; hemisection; root amputation; endodontic implants; and the bleaching of discolored teeth. Endodontics as an academic discipline
is also responsible for the advancement of endodontic knowledge through research, the transmission of information concerning advances in biologically acceptable procedures and materials, and the education of the public and profession as to the importance of endodontics in keeping the dentition in a physiologically functional state for the maintenance of oral and systemic health.

ENDODONTIST
A dentist whose practice is limited to endodontics.

ENDODONTOLOGY
The study of endodontics.

ENUCLEATION
The removal of an organ, body part, or tissue lesion in such a way that is comes out intact. In endodontics, the term usually refers to the surgical removal of an apical cyst or granuloma.

EPITHELIAL RESTS OF MALASSEZ CORDS,
strands, or clusters of ectodermal cells in the periodontal ligament [sometimes found in alveolar bone] derived from remnants of Hertwig’s epithelial root sheath. These cells frequently begin proliferating when inflammation occurs in the periodontal ligament and are believed to be responsible for the genesis of the epithelial lining of apical cysts.

EROSION
A wasting away or noncarious loss of tooth substance by an unknown chemical process that may extend to expose the pulp.

ESSENTIAL OIL
A group of volatile, nongreasy, nonsaponifying oils with characteristic odors and tastes, obtained from plants and other sources or prepared synthetically. They have varying degrees of antiseptic and anodyne properties. They have been used in endodontics chiefly as intracanal medications and by the public and profession for the relief of odontalgia. ETCHING AGENTS
Usually citric or phosphoric acids used to decalcify enamel to improve adhesion of composite resin filling materials. May also be used to remove the smear layer and open dentin tubules just prior to root canal obturation.

ETHYL CHLORIDE
Chloroethane, a colorless extremely volatile liquid used in endodontics to apply cold as a pulp vitality test. Also may be sprayed topically on mucosa as a surface local anesthetic for incision and drainage.

ETHYLENEDIAMINETETRAACETIC ACID (EDTA)
An odorless, white, crystalline solid whose various salts are soluble in water. The disodium salt of ethylenediaminetetraacetic, in an adequately buffered 10% to 15% aqueous solution, is an excellent chelating agent, useful for decalcifying and softening the dentin of root canal walls. It is apparently nontoxic and nonirritating to periapical tissues and as such is often used to ease the negotiation and enlargement of narrow root canals as well as to remove the smear layer of dentin and open the dentin tubules just prior to obturation.

EUCALYPTUS OIL, N.F.
An essential oil of plant origin containing approximately 74% eucalyptol. It is used in some root canal sealer liquids and as a guttapercha solvent.

EUCAPERCHA
A solution or paste of baseplate guttapercha dissolved in oil of eucalyptus; sometimes used as a root canal sealer or cementing medium in obturating root canals.

EUGENOL, U.S.P.
A phenolic compound with anodyne and antiseptic properties. It is the essential constituent of oil of cloves. Occurs as a colorless or pale yellow liquid. Often combined with zinc oxide or zinc oxide base preparations to form various pastes and cements used in dentistry. In endodontics, it is sometimes used as an anodyne and as a root canal dressing after removal of a vital pulp.

EXPLORER, ENDODONTIC
A special design of instrument used in exploration for root canal orifices. exposure, pulp An opening in the dentin that uncovers the pulp.
CARIOUS P.C.
Exposure of the pulp resulting from the progressive destruction of tooth structure by acids and proteolytic enzymes elaborated through microbial activity.

IATROGENIC P.C.
An exposure of the pulp made by an excavator or a revolving bur in the course of removing carious tooth structure.

MECHANICAL P.E.
The intentional or accidental exposure of the pulp by hand or rotary cutting and grinding dental instruments.

TRAUMATIC P.C. Exposure of the pulp caused by traumatic fracture of the tooth.

EXTERNAL RESORPTION
(See resorption, external r.)

EXTIRPATIONS, PULP (See pulp, p. extirpation)

EXTRUSION
Movement of a tooth in an incisal or occlusal direction.

F

FALCATED
A morphological term referring to the gradual curve and taper of the root of the tooth; also called sickleshaped root.

FENESTRATION
A windowlike defect, a dehiscence, in the thin alveolar plate of bone uncovering a portion of the root. usually on the buccal aspect. Also a procedure (artefistulation, trephination, trepanation) in which the mucoperiosteum and alveolar plate of bone over the root end of a tooth are surgically perforated or punctured to relieve pain caused by the accumulation of tissue exudate.

ALVEOLAR PLATE F.
A condition in which a round or oval, windowlike defect exists in the cortical plate of bone overlying a portion of the root of a tooth. Such defects are most common over the buccal, and less often the lingual, aspect of the roots of teeth. particularly when the roots are prominent in the dental arch. Following endodontic surgery in patients with the latter condition, the soft tissue covering over the root may also be lost, and the root, in this area, left denuded of any covering.

FIBER OPTICS
The conduction of light from a source through a bundle of glass or plastic fibers. Because fiber optic devices transilluminate the teeth and tissues, they may be useful in detecting cracked teeth, canal orifices, and fractured roots.

FIBERS, ALVEOLAR
Fibers attaching the tooth to the alveolar bone extending from alveolar bone proper to cementum.

GINGIVAL F.
The collagen fibers that attach the gingiva to the tooth acting as a barrier to the apical migration of the epithelial attachment.

KORFF’S F.
Thickened collagen fibers at the pulp periphery entering the dentin and condensing to form its matrix.

TOME’S F.
Branching processes of the odontoblast in the dentinal! tubules.

FIBROSIS, PULP
An increase in number and size of fibrous elements of the pulp with a concomitant decrease in the number of cells. The condition is believed to occur as a normal aging process, but can also be accelerated by pathologic degenerative changes occurring in the pulp.

FILE, ROOT CANAL
FILLING
Any material or combination of materials that is placed into a cavity or space, its purpose may be to restore form and function, as in restorative dentistry, or to obturate and seal off a space, as in endodontics.

F. METHODS
(See root canal, r.c. filling methods)
ROOT CANAL F.
(See root canal, r.c. filling)
ROOTEND F. (RETROFILLING) (See root canal, r.c. filling methods)
FINGER PLUGGERS
(See root canal, r.c. plugger)
FISTULA
An abnormal passageway, usually leading from an abscess cavity between two internal organs or leading from an abscess cavity or internal organ to a surface of the body.

DENTAL F.
Through popular usage, the term “dental fistula” has improperly become synonymous with the term “sinus tract.” The use of the term “fistula” should be discouraged, and the more proper term “sinus tract” should be used (see sinus, s. tract).

FLAP, SURGICAL
The incision and release of tissue such as gingiva, mucosa or periosteum (mucoperiosteal) to allow access to underlying structures or lesions. Flaps are repositioned and sutured. Classified by position: apically repositioned, lateral or vertical sliding; or by geometric shape: curved (semilunar), rectangular, scalloped, trapezoidal, triangular or vertical.

FLUCTUANT
A wavelike sensation or motion felt by palpation of a fluid containing mass such as an abscess.

FLUOROSIS, DENTAL
A form of enamel hypoplasia, mottling and discoloration resulting from ingestion of excessive amounts of fluorine in natural drinking water.

FORAMEN (PL. FORAMINA)
A natural opening or passage, especially into or through a bone.

ACCESSORY F.
An orifice on the surface of a root originating from the main root canal. Such orifices can be present at any level of the root surface as well as in the furcation area.

APICAL F.
The main apical opening of the root canal through which soft tissue communication is made between the pulp and periodontium and through which pass the major nerves and vessels supplying the pulp.

MULTIPLE FORAMINA (accessory foramina)
Two or more apical openings leading to the main root canal. Most root canals of fully formed teeth terminate in an apical delta, resulting in one or more collateral exits at or near the apex. This condition is more frequently found in multi rooted than in single rooted teeth.

FORCEPS, RUBBER DAM CLAMP
(See dam. rubber d. clamp forceps)

FORMALDEHYDE
A powerful disinfectant gas and a strong tissue irritant its chemical formula is HCHO. The gas is sometimes used to disinfect rooms, bedding, clothing, etc. Solutions of formaldehyde gas are commonly used as a fixative for histological specimens and as disinfectants.

PARAFORMALDEHYDE
(polymerized formaldehyde) A polymer of formaldehyde occurring as a white, amorphous solid with a slight odor of formaldehyde. It is slowly soluble in water, irritating, and toxic to normal tissues. At body temperature, it gradually depolymerizes and releases formaldehyde. At one time
used in endodontics in pulp mummification treatment.

FORMOCRESOL
A mixture of 19% formaldehyde and 35% cresol in a waterglycerin vehicle. It is used for therapeuc
tic pulpotomy of deciduous teeth according to the so-called “formocresol pulpotomy technique” and
as an intrachamber dressing. Formocresol is a potent germicide and a potential irritant.

FRACTURES
In medicine, a split or break in bone, cartilage or teeth. Fractures are classified according to
extent, location and type. Extent: Partial. The split separates a portion of the tooth. This occurs in
the cracked tooth syndrome. Complete. This is a through and through separation of the tooth.
Location: Crown. Occurs in the coronal region. Root. Either in the cervical, midroot or apical one-
third. Type; Horizontal. Depending upon the location, can be treated by splinting, removal of one
section. extrusion, or extraction. Vertical. Generally requires extraction of the tooth.

FRAME, ROBBER DAM
(See dam, rubber d. frame)

FURCA
The area lying between, and at the base of normally separated roots of multirooted teeth. FURCA-
TION AREA
An area of pathosis between molar roots related to either pulpal or periodontal pathosis. It con-
tains lymphocytes, plasma cells, macrophages, PMN’s, giant cells. collagenous connective tissue,
capillaries and nerve fibers. It occurs more often in primary molars and lower permanent molars.
fusion A “double” tooth that is the result of the union of two adjacent tooth germs. The two teeth
may be united throughout their entire lengths or may be joined only at their crowns or roots. In the
latter instance, the union must involve dentin; otherwise the condition cannot be termed “fusion.”
Union of the roots of two adjacent teeth by cementum is termed “concrescence” rather than
“fusion.”

G

GALVANISM (electrogalvanism)
The flow of direct electric current between two or more dissimilar metals.
DENTAL F.
A physiochemical phenomenon that may occur in the oral cavity when two or more dissimilar
metals that have been used in restoring teeth or replacing them with artificial substitutes produce
da direct electric current. This electric current sometimes acts as an irritant, producing pulpal pain
and/or inflammation. On rare occasions, mucosal lesions have resulted from dental galvanism.
GALVANOTHERAPY
(See electrosterilization)

GANGRENE
En masse death of tissue of a body part owing to failure of blood supply, disease, or injury. Tissue
defath may be followed by invasion of microorganisms. Gangrene may be moist or dry, depending
on whether liquefaction or desiccation occurs, and can occur in root canals.
GERMINATION
A disturbance in development in which partial cleavage of the tooth germ occurs, resulting in a
tooth that has a double or “twin” crown. Usually these crowns are not completely separated, and
they share a common root and root canal (or pulp cavity).
GLASS BEAD STERILIZER
(See sterilizer, glass bead s.)

GLUTARALDEHYDE
A dialdehyde that is used as a fixative. It has been introduced into endodontics as a substitute for
formaldehyde for intracanal medication.
GRANULOMA
A tumorlike mass of granulomatous tissue. Granulomatous tissue contains granulation tissue plus a large concentration of chronic inflammatory cells (lymphocytes, plasma cells, macrophages, giant cells) and varying concentrations of PMN’s.

APICAL G.

(See periodontitis, chronic apical p.)

GUM BOIL (parulis, stoma)

A lay term for an abscess associated with the alveolar process. It usually originates either at the apex of a tooth as an apical abscess or along a lateral surface of the root of a tooth as a lateral alveolar abscess. The former is usually a result of pulp disease, the latter of periodontal disease. The actual lesion results from purulent drainage.

GUTTAPERCHA

The refined, coagulated milky exudate of certain trees indigenous to the Malayan Archipelago. The sap is extracted from trees of the family Sapotaceae by making slits in the cambium layer and is collected in vessels. The resulting latex, which is a colloidal suspension, is then coagulated by boiling. Chemically, guttapercha is a hydrocarbon with the empirical formula C5H8 and is a polyisoprene, as is natural rubber. Guttapercha is the transform for the molecule, and a natural rubber is the isomeric cisform of the molecule. Waxes, fillers, and radiopaque agents are added to guttapercha for dental use. The usual ratios of components are 20% guttapercha, 66% filler of zinc oxide or zinc silicate, 11% radiopaque heavy metal sulfate, and 3% plasticizer, waxes or resins. In recent years, balata, a natural transpolyisoprene from South America, has been increasingly substituted for guttapercha.

G.P. CONE (g.p. point)

Plastic, radiopaque cones manufactured from guttapercha and various compounding ingredients in a variety of sizes, including those which conform with the standardized sizes of root canal reamers and files. Guttapercha cones are generally used to fill and seal root canals in conjunction with root canal sealer, cement, or organic solvents.

H

HEMATOMA

A localized accumulation of extravasated blood in tissue, usually in the form of a large blood clot. The term “hematoma” is generally reserved for larger haemorrhages clinically manifested by discoloration and sometimes by swelling of tissues. Hematomas occasionally occur following accidental injury of the periapical region arising from overinstrumentation (past the apical foramen) during root canal therapy or following periapical surgery. HEMISECTION

The surgical separation of a multirooted tooth so that one root (in maxillary molars as many as two roots) and the overlying portion of the crown can be surgically removed. Generally hemisection is a treatment procedure indicated for mandibular molars whenever one root must be removed because of periodontal involvement. In such instances, the tooth is separated buccolingually through the bifurcation region into two separate parts. The defective or periodontally involved root with its part of the crown is then removed. In some instances, when pathosis is due primarily to involvement of the furcation area, hemisection and furcal curettage may allow retention of both halves of a mandibular molar. Each half may be restored to approximate a bicuspid, hence, the term “bicuspization.”

HERMETIC SEAL

(See seal, hermetic s.) Hertwig’s epithelial root sheath. That portion of the tooth germ which initiates the formation, and molds the shape of the roots of teeth. It is formed at the cervical loop of the enamel organ by the inner and outer dental epithelium and has no stratum intermedium or stellate reticulum. After the first layers of root dentin have been deposited, Hertwig’s epithelial root sheath loses its continuity and its remnants persist as the epithelial rests of Malassez.

HYDROGEN PEROXIDE
A clear, colorless, unstable liquid with disinfectant and bleaching properties having the chemical formula H2O2. It is marketed in aqueous solution, which is proportionally unstable with increased concentrations; even dilute solutions gradually deteriorate when stored. Hydrogen peroxide is miscible in all proportions with water.

HYDROGEN P., 30%
A 30% solution of hydrogen peroxide is often used for "bleaching discolored pulpless teeth because of its strong oxidizing properties. This solution should be stored in its original container in a cool place, preferably under refrigeration. Improper storage not only hastens decomposition but may result in spontaneous explosion of the container.

HYDORGEN P. SOLUTION, U.S.P.
An aqueous solution of approximately 3% hydrogen peroxide. It is used in endodontics as a root canal irrigant because of its cleansing and antiseptic properties. The solution is used either alone or alternately with sodium hypochlorite.

HYDRON
A polyacrylic injectable root canal filling material. It is a poly HEMA (poly 2-hydroxyethylmethacrylate) with barium sulfate added for radio contrast.

HYPERCEMENTOSIS (cementum hyperplasia)
A regressive change of teeth characterized by the deposition of excessive amounts of secondary cementum on root surfaces. This most commonly involves nearly all root surface areas, although, in some instances, the cementum deposition is focal, usually occurring at the apex of the root.

HYPEREMIA
An increased volume of blood within dilated vessels in an organ or tissue.

ACTIVE H.
Hyperemia which is the result of increased arterial blood flow to a part and is usually acute in nature.

ACUTE H.
Hyperemia which develops rapidly. Chronic h. Hyperemia which develops gradually and is of prolonged duration.

PULPAL H.
It is considered an early stage of pulpitis. Although it has been separated into arterial and venous types, the distinction is difficult to make clinically. It has been correlated with hypersensitive dentin by some investigators but others have found no correlation.

HYPERREACTIVE PULPALGIA
Pulpal sensitivity characterized by short, sharp, shooting pain. The pain is not spontaneous but is precipitated by a stimulus, such as heat, cold, sweet, and sour. This phenomenon is commonly experienced after the placement of a new restoration, root planing, and periodontal surgery. It also characterizes the type of pain experienced in the "cracked tooth" syndrome.

HYPERSENSITIVITY (dentin h.)
A condition in which the involved exposed dentin is sensitive to cold, sweet and touch. It can also occur with exposed cementum.

HYPOCALCIFICATION
Reduced or deficient calcification of mineralized tissue, such as bone, dentin, enamel, or cementum.

JUNCTION
A place of meeting or coming together, as of two tissues. CEMENTODENTINAL J.
The area at which the dentin and cementum are united. In endodontics, the term is commonly used to denote the junction of dentin and cementum at the apex of a tooth. The average range of the position of this junction is from 0.5 to 3.0 mm from the anatomic apex. This position is not sta-
tic and will change with age and environmental conditions.
CEMENTOENAMEL J. The area at which the enamel and cementum unite in the cervical region of the tooth. It is common for the cementum to overlap the enamel in this area, although in many teeth the line of junction is sharp and abrupt.

K

KLOROPERKA (Kloroperka N0)
A paste made by dissolving a powder consisting of zinc oxide, gutta-percha, and rosin in chloroform and using it as a cementing medium for gutta-percha cones during the obturation procedure.

L

LAMINA
A thin, flat plate or layer.
L. DURA
A thin radiopaque line that, in dental radiographs, is seen to surround the roots of teeth. Loss of continuity and changes in the width and radiopacity of the lamina dura often indicate abnormality.
LATERAL CONDENSATION METHODS
[See root canal, r.c. filling methods]
LENTULO
A flexible, loosely spiraled, wirelike instrument that can be mounted in the dental handpiece. The rotating instrument is used to carry root canal sealer or paste material into the root canal.
lesion
A pathologic or traumatic disturbance in a tissue or organ that can result in its impairment or loss of continuity or function.
LIGAMENT, PERIODONTAL  (periodontal membrane)
The band of dense connective tissue located between the surface of the anatomical root of a tooth and the wall of the bony alveolus in which that tooth is suspended. The principal collagen fiber bundles of the ligament insert into the bone at one end and into the cementum at the other, thus attaching the tooth to the alveolus.
LUMEN
The channel or cavity within a tube or tubular organ, such as the root canal space inside the root of a tooth.
LUXATION
Dislocation of a tooth from its alveolus that might result from acute trauma or a pathologic process.
EXTRUSIVE  L.
A partial displacement of the tooth out of its socket.
INTRUSIVE  L.
A displacement of the tooth deeper in the alveolar socket accompanied by fracture of the alveolar socket.
LATERAL L.
A displacement of the tooth in a direction other than axially, accompanied by fracture of the alveolar socket.
subluxation  Injury to supporting tissues resulting in abnormal loosening of a tooth or teeth without displacement.
lymph
Transparent, slightly yellow liquid found in lymphatic vessels and derived from tissue fluids.
DENTINAL L.
Intercellular fluid from the dental pulp which bathes the odontoblastic processes in the dentinal tubules.
MAJOR DIAMETER
The area where the walls of the apical foramen are farthest apart.

MARSUPIALIZATION
(Partsch’s operation) The creation of a pouch. Applied specifically to the surgical exteriorization of a cyst by resection of a wall and suturing the remaining cyst edge to the adjacent skin edges. The resulting defect then doses by granulation. In endodontics, the term is often used to refer to a procedure where a tube or other type drain is used to decompress a large lesion during healing.

MATSURA APICAL PREPARATION
A slot preparation placed in the apex of a root during endodontic surgery to allow the placement of an apical filling.

MESSERANN KIT
A set of instruments which cuts a trench around a silver point or broken instrument, and then attaches itself to it, to allow its removal.

MCSPADDEN COMPACTOR
A special instrument which fits into a standard handpiece and allows vertical condensation of gut-tapercha into the root canal.

MEDICAMENT, ROOT CANAL (See root canal, r.c. medicament)

MEMBRANE, PERIODONTAL (See ligament, periodontal)

MERCOCRESOL Mixture of equal parts by weight of secamyltricresol and 2hydroxyphenylmercuric chloride. This combination of a cresol derivative and an organic mercury compound has germicidal, fungicidal, and bacteriostatic but not sporidal properties.

METACRESYL ACETATE
A clear, tight yellow, oily fluid with a pungent odor. It has a mild, nonspecific antibacterial and antifungal action and is used as a root canal medicament.

METAPLASIA
A transformation of the usual type of cells, normally found in a tissue, into entirely different types. For example, the osseous or cartilaginous transformation of collagenous connective tissue or the transformation of a normal pulp into chronic inflammatory tissue in pulpal hyperplasia.

MICROTUBULES
(See dentinal, d. tubule)

MINOR DIAMETER
The area where the walls of the apical foramen are closer together, usually in dentin just before-cementodentinal junction.

MUMMIFICATION, PULP
A form of pulp therapy, now considered obsolete, in which the coronal portion of an intentionally devitalized pulp is removed, and the remaining pulp fixed with a preserving agent. Arsenic trioxide was usually used to devitalize the pulp and a paraformaldehyde paste to fix the remaining pulp.

N

NECROSIS
Death of a cell or group of cells.

COAGULATION N.
Necrosis of a portion of some organ or tissue because of the blockage of blood vessels supplying that area by coagula. The latter results in the formation of fibrous infarcts.

LIQUEFACTION N.
A form of necrosis in which the dead tissue becomes wet and soft.

PULPAL N.
Death of the dental pulp.

NEURALGIA
Paroxysmal pain that extends along the course of one or more nerves. Many varieties of neuralgia are distinguished according to the part affected or to the cause, e.g., anemic, degenerative, diabetic, facial, gout, malarial, occipital, supraorbital, syphilitic, etc.

NODULE, PULP [See stone, pulp]
NORMAL PULP
One that carries out the normal functions of that organ, i.e. formative in building dentin, nutritive in providing nutrition to the dentinal fibrils, and sensory by transmitting painful stimuli when excessive heat or cold is applied to the tooth. Anatomically, a normal adult pulp may show changes not present in a young pulp, e.g., calcified bodies.

OBTNNDENT
An agent having the power to dull sensibility or to alleviate pain. An anesthetic type agent that decreases or eliminates pain.

OBTVRATC
To dose up or fill a cavity.

ODOATOBUT
(dentinoblast) A highly differentiated connective tissue cell found on the outer surface of the dental pulp, next to dentin. The main function of odonoblasts is the formation of dentin.

ODONTOGNIC CYST
[See cyst, odontogenic e.]

OLIGODYNAMIC
Active in minute quantities the toxic effects that minute quantities of certain metals, as silver, have on living cells coming into direct contact with them; especially related to effect on microorganisms.

OSTEITIS
Inflammation of a bone, involving the Haversian spaces, canals, and their branches. The condition is generally characterized by tenderness, dull aching pain, and sometimes expansion and resorption of the bone.

OTTOEDENTIA
Probably a misnomer when used to refer to reparative dentin. True osteodentin is a trabecular form of dentin found in certain lower vertebrates.

OSTEOMYELITIS
Inflammation of marrow of bone usually associated with microorganisms. The inflammation may remain localized or may spread throughout the bone to involve the marrow, cortex, cancellous tissue, and periosteum.

OSTEOPOROSIS
A disease of bone tissue characterized by a disturbance in bone matrix formation.

OSTEOSCLEROSIS
Hardening or abnormal denseness of bone. A condition that is seen in the bones of the jaw as radio opaque areas of varying sizes and shapes.

OVEREXTENSION
An assessment of the vertical extent of a root canal filling, denoting extrusion of material beyond the apical foramen, with no reference to volumetric area or apical seal.

OVERFILLING
A volumetric assessment denoting obturation of the root canal space with excess material extruding beyond the apical foramen.
PAIN
An unpleasant sensation of discomfort, distress, or suffering that arises when noxious stimuli act on innervated tissue. Pain may be localized or may be referred to parts other than that in which it originates. In the latter instance, it is called “referred pain.”

ATYPICAL FACIAL P.
A deep, vague and poorly localized pain, which may involve two or more sensor pathways and may cross to the other side of the midline.

REFERRED P.
Pain that is referred to a part of the body other than the site of origin.

PAPER POINT
(See point, absorbent p.)

PARACHLOROPHENOL [PCP]
A colorless, crystalline phenolic compound often used in dentistry in combination with camphor to create camphorated parachlorophenol; also used occasionally in 2% aqueous solution.

CAMPHORATED P., U.S.P. (CMCP, CPCP, or CPQ) A liquid containing camphor, 65 gm, and parachlorophenol, 35 gm, triturated together until they liquify and are thoroughly mixed. The camphor serves as a vehicle. A nonspecific antimicrobial agent used for the disinfection of root canals.

PARAFORMALDEHYDE
Polymerized formaldehyde. (See formaldehyde)

PARESTESIA
An abnormal sensation, such as burning, prickling, or numbness, caused by dorsal root irritation and of varied time length. In endodontics, it sometimes follows acute traumatic injuries to the teeth and jaws, root end resection, or overfilling of the root canal with impingement upon a nerve.

PARTSH’S OPERATION
(See marsupialization)

PARULIS
(See gum boil)

PERCUSSION TEST
(See test, percussion t.)

PCHIFICATION
An opening or hole in a body part or tissue, which has been artificially created.

MECHANICAL P.
An artificial opening or hole made by boring, piercing, or cutting through a structure or surface, such as the root of a tooth.

PATHOLOGIC P.
An opening or hole produced in a tissue surface or structure by a pathologic process, as may occur in internal or external resorption of a tooth.

TOOTH P.
An opening or hole through a wall of a tooth.

PERIAPEX
A synonym for apical periodontium; a complex of tissues surrounding the apical portion of a tooth root consisting of cementum, periodontal ligament, and alveolar bone.

PERIAPICAL
Enclosing or surrounding the apical portion of a tooth root. p. abscess (See abscess, acute apical a.)

P. CURETTAGE
(See curettage, apical)

P. TISSUE REPAIR
P. OSSEOUSDYSPLASIA
(See cementoma)
P. OSTEOFIBROSIS
(See cementoma)
P. OSTEOSCLEROSIS
(condensing osteitis) is characterized by dense bone around the root apex formed as a result of low grade, continued irritation.

PERLCMEMTHIS
(See periodontitis)

PERIODONTAL
Pertaining to the tissues which surround, support, and attach the teeth.
P. CYST
(See cyst, periodontal e.)
P. ILGAMCNT
(See ligament, periodontal)
P. MEMBRANE
(See ligament, periodontal)

PERIODONTITILS
[pericementittis] Inflammation of the tissues which surround, support, and attach the teeth and that, collectively, are referred to as the periodontium.

AORTE APICAL P.
An acute inflammation of the tissues around the apex of the root(s) of a tooth.
CAROTILE APICAL P.
[apical granuloma, periapical granuloma, dental granaloma, granvlomatoas tlsstic] A modified type of inflammatory tissue containing elements of chronic inflammatory cells located around or adjacent to the root apex and continuous with the periodontal ligament of a tooth that has an infected necrotic or necrobiotic pulp. The slowly expanding lesion causes resorption of the bone that it replaces, resulting in a localized area of bone rarefaction. This tissue has excellent repair potential "arrd «eadily converts to normal periapical tissue when the irritant is removed from the root canal.
SUPPURATIVE APICAL P.
[chronic periapical abscess, chronic alveolar abscess] A chronic inflammatory reaction involving the tissues that surround the apical portion of a tooth characterized by an intermittent discharge of pus from a sinus tract, with slight or no discomfort, little or no swelling of tissues, and gradual onset. A sequela of pulpal necrosis.

PERIRADTCTEGR
Enclosing or surrounding the root portion of a tooth.

PCROXIDE
That oxide of any element that contains more oxygen than any other. More correctly applied to compounds having a double oxygen linkage, i.e., hydrogen peroxide, HOOH.

HYDROCN P., 30%
(See hydrogen peroxide, hydrogen p., 30%)

HRDROGTN P. SOFATION, O.S.P.
(See hydrogen peroxide, hydrogen p. solution, U.S.P.)

PHANTOM TOOTH
A phenomenon similar to that experienced by amputees: the phantom limb effect. This phenomenon has been reported to occur in patients who have had a longstanding painful tooth. After the tooth is extracted, the patient will continue to report that the pain is still present.

PHOENIX ABSECSS
[recrudescent abscess] The apical lesion that develops as an acute exacerbation of a chronic apical periodontitis or suppurative apical periodontitis.
PFAGGCR, ROOT CANAL [See root canal, r.c. plugger]

POINT
A specially designed and relatively concise area; a small spot that serves a purpose; the tapered or sharp end of an instrument or other object.

ABSORBENT P.
[paper point] Paper points manufactured in a variety of sizes and used in endodontics to dry root canals.

GUTTAPERCHA P. [See gutta-percha, g.p. cone]

SILVER P. [silver cone] Points of silver manufactured in a variety of sizes, usually corresponding to the diameters and tapers of root canal files. Silver points are used to file and seal root canals in conjunction with root canal sealers.

POLYMERIZED FORMALDEHYDE PARAFORM RRTALALDEHYDE. [See formaldehyde]

POLYP, PULP
[pulp, p. hyperplasia] preparation, biomechanical The procedures involved in exposing, enlarging, cleansing, and shaping the pulp chamber and root canal by mechanical means.

PREPARATION, CHEMOMECHANICAL
[See preparation, biomechanical]

PRIMORDIAL CYST
[See cyst, primordial e.]

PALP
[dental pnlp, tooth pulp] The vascular and richly innervated connective tissue organ normally occupying the pulp cavity of a tooth.

P. AMPATATION
[pulpotomy] The surgical amputation of the coronal portion of an exposed vital pulp, usually as a means of preserving the vitality and function of the remaining radicular portion. As a treatment procedure, it is indicated in some instances of exposed vital pulps in deciduous teeth and in incompletely formed permanent teeth, and as an emergency procedure before root canal therapy.

P. ATROPHY
[See pulp, p. degeneration]

P. CAPPING
A procedure in which an exposed or nearly exposed pulp is covered with a protective dressing or cement that protects the pulp from additional injury and permits healing and repair. Two different techniques of pulp capping are recognized: direct p.c. In which the protective dressing is placed directly over the pulp at the site of exposure. Indirect p.c. In which the protective dressing is placed over a thin partition of remaining dentin or slightly softened dentin which, if removed, might expose the dental pulp.

P. CAVITTY
The internal space within the tooth, which normally houses the dental pulp.

P. CHAMBER
The portion of the pulp cavity within the anatomic crown of the tooth.

P. DEGNCRATIAOA
A progressive pathologic change of the dental pulp to a lower and less functionally active state.

ATROPHIE P.D.
atrophie polposis*, p. atrophy] A form of pulpal de-generation often seen in dental pulps of older people. It is characterized by a decrease in mass size and a reduction in the cellular elements of the pulp. Atrophic degeneration probably does not exist and is an artifact owing to improper fixation of tissue.

CALEIFLE P.D.
dystrophic p.d., calcarcos p.d., caleifile metamorphosis, calcific palposis] A dystrophic condition of the pulp characterized by the deposition of calcific material within the pulp.

DITTATE CALEIFLE P.D.
A degenerative state of the pulp in which irregular calcific deposits form in the pulp, usually alongside collagenous fiber bundles or blood vessels. Sometimes these develop into large bodies, and at other times they persist as fine spicules. Calcific deposits, as seen in this type of degeneration, are amorphous in structure and are more often located in the radicular rather than the coronal portion of the pulp.

FIBROUS P.D.
(See fibrosis, pulp)

P. EXTIRPATION
(pulpectomy) Total removal of the dental pulp.

P. HYPERPLASIA
[chronic hyperplastic pulpitis, hyperplastic pulpitis, hyperplastic pulposis, pulp polyp] A productive type of chronic pulpal inflammation usually observed clinically as a pedunculated or sessile mass of red, fleshy tissue protruding from the crown of a widely exposed tooth in a young patient.

P. INFLAMMATION
(pulpitis) Inflammation of the pulp.

ACUTE P.I.
(acute pulpitis) A pathologic painful condition of the pulp characterized by signs and symptoms of acute inflammation, such as dilation of blood vessels, inflammatory exudate, and accumulation of polymorphnuclear leukocytes.

CHRONIC P.I. (chronic pulpitis)
A pathologic state of the pulp characterized by physiologic and histologic findings of chronic inflammation, inflammatory exudate, lymphocytes, plasma cells, and necrobiosis.

P. INJURY, TRAUMATIC
(See injury, traumatic pulp)

P. MUMMIFICATION
(See mummification, pulp)

P. NECROSIS
(See necrosis, pulpal n.)

P. NODULE
(See stone, pulp)

P. STONE
(See stone, pulp)

P. TESTER
(See tester, pulp) transitional

PULP STAGE
A condition of the pulp tissue in which chronic inflammatory cells are present, but not in the abundance necessary to constitute a typical inflammatory exudate. This condition can be caused by abrasion, attrition, caries, periodontal disease, and operative procedures in restoring teeth.

PULP ATROPHY
(See pulp, p. degeneration)

PULPAL ABSCESS
An inflammatory involvement of the dental pulp characterized by a localized collection(s) of necrotic tissue with the formation of pus.

PULPALGIA ADVANCED P.
Gives rise to symptoms of severe pain brought on by heat and relieved by cold, and is symptomatic of abscess formation or partial necrosis of the pulp.

INCIPIENT ACUTE P.
Pulpitis is a form of pulp hyperemia in which a painful signal is expressed that the pulp is being irritated beyond its capacity. It is characterized by sensitivity to cold and sweet and sour foods, and is a reversible condition once the cause is removed.

MODERATE P.
Or acute simple pulpitis is characterized by moderate to severe, intermittent or continuous pain.
brought on by thermal changes, or occurring spontaneously.
PULPECTOMY
(See pulp, p. extirpation)
PULPITIS
(See pulp, p. inflammation)
PULPLESS TOOTH
A tooth from which the pulp has been removed or which has been endodontically treated and
obturated.
PULPOPERIAPICAL OSTEOSCLEROSIS
(See condensing osteitis)
PULPISIS
A degenerative change of unknown etiology. The dystrophic pulp conditions included in pulposis
are atrophy, calcific degeneration, hyperplasia, and idiopathic resorption.
PULPOTOMY
(See pulp, p. amputation)
PUS
A liquefied product of inflammation consisting of leukocytes, degenerated tissue elements, tissue
fluids, and usually microorganisms.
PUTRESCENT PULP
A pulp that has been decomposed by enzymatic action and has been invaded by saprophytic micro-
organisms with the production of foul smelling compounds (hydrogen sulfide, ammonia, and mer-
captans).

S
SARGENTI METHOD (N2)
N2 refers to a "second nerve," one that is placed by a dentist, i.e., a root canal filling; an endodon-
tic technique advocated by Dr. Angelo Sargenti of Switzerland. It involves mechanical preparation
of the root by means of enginedriven instruments and root canal filling with a zinc oxide paste
containing paraformaldehyde and other ingredients that have been added or deleted from time to
time.
SEAL
A perfect closure; to close completely, especially to make airtight.
DOUBLE S.
An interim restoration consisting of an inner and an outer filling closing the access opening in the
crown of a tooth undergoing endodontic treatment. The inner filling is usually of gutta-percha, and
the outer filling usually of dental cement. hermeticthe perfect and absolute obturation of the root
canal.
SEALER
(See root canal, r.c. sealer) sedative treatment a procedure that involves the placement of a sub-
stance, such as a temporary medicated cement or drug in a tooth to relieve pain or
discomfort.
SEMILUNAR FLAP A simple, slightly curved (halfmoon) flap used in periapical surgery. Due
to frequency of scarring in muckgingival junction, more often a vertical full thickness flap is pre-
sently used.
SHEATH, HERTWIG’S EPITHELIAL ROOT
(See Hertwig’s epithelial root sheath)
SILVER CONE
(See point, silver p.)
SILVER POINT
(See point, silver p.)
SINUS
A normal or abnormal body cavity, channel, or hollow space.

MAXILLARY

(See tantrum)

TRACT (T FISTULOUS TRACT)

As used in endodontics, the term usually refers to a tract leading from an enclosed area of inflammation to an epithelial surface. The tract opening may be intraoral or extraoral and represents a pathway through which pus is discharged intermittently during active phases of the disease process. It may appear and disappear periodically according to the lapse of time between active phases. Sinus tracts usually disappear spontaneously with elimination of the causative factor by endodontic therapy.

SODIUM

The strongly alkaline metallic element represented by the symbol Na; it has a strong affinity for oxygen and other nonmetallic elements.

S. HYPOCHLORITE SOLUTION

A clear, pale, greenishyellow liquid with a strong chlorine odor, which contains about 1.5% to 5.0% sodium hypochlorite. The solution is strongly alkaline and has a solvent action on necrotic pulp tissue and organic debris. In endodontics, it is used for irrigating root canals either in full strength solution or in dilute solution. It is also a potent antimicrobial agent.

S. PERBORATE

An odorless, white crystalline solid, moderately soluble in water, which liberates oxygen in the presence of moisture. In endodontics, it is used either with water or superoxol for bleaching discolored teeth.

SPLINT

A rigid or flexible device or compound used to support, protect, or immobilize teeth that have been loosened, replanted, fractured, or subjected to certain endodontic surgical procedures.

SPLIT CONE METHOD

(See root canal, r.c. filling methods)

SPREADER

(See root canal, r.c. spreader)

STERILE

Free from microorganisms and their spores; aseptic.

STERILITY

A state denoting absence of all forms of life; commonly used in reference to the total absence of living microorganisms and their spores.

STERILIZATION

A process capable of destroying microorganisms and all other forms of life.

AUTOCLAVE S.

(superheated «team ».) A reliable method of sterilization that uses superheated steam under pressure inside the chamber of an autoclave. The recommended temperature/time range of saturated steam for purposes of sterilization is 121° to 123 °C maintained for a minimum of 15 minutes, the time depending on the number of items, type of load, and arrangement in the chamber. At this temperature, steam has a pressure of 15 to 17 pounds; however, it is the temperature of the steam and not the pressure that is the sterilizing force. Cotton, gauze, sponges, towels, rubber gloves, absorbent points, as well as instruments and glassware may be sterilized in the autoclave.

DRY HEAT S.

(hot air s.) A method of sterilization that uses dry heat inside an oven type sterilizer. To ensure sterilization of items placed inside the oven sterilizer, an internal temperature of 170° C should be maintained for at least one hour or 160°C for two hours. Dry heat sterilization is especially suited for metal instruments, syringe and syringe needles, glass, porcelain, and anhydrous oils, greases, and powders.

STERILIZER

An apparatus in which microorganisms or other forms of life may be destroyed, e.g., the autoclave,
hot air oven, glass bead sterilizer, etc.

AUTOCLAVE *.  
(See sterilization, autoclave s.)

DRY HEAT S.  
(See sterilization, dry heat s.)

GLASS BEAD S.  
An electrical device with a receptacle containing small glass beads, which are heated between 225° to 250°C (437° to 482 °F) for the sterilization of root canal files, reamers, broaches, dental burs, absorbent points, cotton pellets, etc. Often used in endodontics as an auxiliary sterilizer. Within the recommended temperature range, small metal instruments, absorbent points, and cotton pellets may be sterilized in 5 to 10 seconds.

HOT SALT S.  
A device similar to the glass bead sterilizer except that table salt is used as the heatconducing medium instead of glass beads.

MOLTEN METAL S.  
A device similar to the glass bead or hot salt sterilizer except that a lowfusing metal alloy is used as the heat conducting medium. The metal alloy usually consists of lead, tin, and bismuth.

STEROIDS  
A group name for compounds that chemically resemble cholesterol and contain a hydrogenated cyclopentophenanthene ring System. In endodontics, they have been used for their antiinflammatory effect.

STOMA  
(See gum boil)

STONE, PULP  
(denticle, nodule) A calcified formation occurring within the pulp or attached to pulp cavity walls. According to their structure, they are classified as true or false denticles. True denticles are made up of irregular dentin, while false denticles consist of concentric layers of degenerated and calcified tissue. In relation to pulp cavity walls, denticles are free, adherent, or interstitial.

STOP  
A rubber, silicone or plastic device placed on intracanal instruments to indicate working length.

STOPPING, TEMPORARY  
Guttapercha mixed with zinc oxide, wax, and colouring material, which softens on heating and rehardens at room temperature. It is sometimes used beneath another material! to provide a temporary double seal in the coronal access opening of the tooth during root canal treatment.

STRIP PERFORATION  
Occurs in figureeight, crosssectionally shaped canals (mesial roots of mandibular molars, maxillary bicuspids and mandibular incisors), due to overinstrumentation^ of the middle portion of the root, causing penetration into the periodontal ligament.

SUBLUXATION  
Injury to supporting tissues resulting in abnormal loosening of a tooth or teeth without displacement. sulfonamides Various compounds, whose simplest member is sulfanilamide (paraamino-benzenesulfonamide). The antibacterial activity of the sulfonamides is wide, i.e., against both grampositive and gramnegative organisms, although the effect generally is bacteriostatic. The toxicity of most sulfonamides restricts their clinical use. Sulfadiazine and sulfasoxazole are the least toxic in that they do not appear to cause renal or urinary complications.

SUPEROXOL  
(See hydrogen peroxide, hydrogen p. 30%)

SUPPURATIVE APICAL PERIODONTITIS  
(See periodontitis, suppurative apical p.)

SYNDESmosIS  
A type of fibrous union in which the intervening fibrous connective tissue forms an interosseous membrane or ligament, as often occurs in a fractured tooth root.
SYNDROME
A complex of signs and symptoms, which together are pathognomonic of a particular disorder.

CRACKED TOOTH S.
The symptoms that result from an incomplete fracture of a tooth. These may include pain on chewing, sensitivity to thermal changes, and those symptoms associated with hypersensitive dentin, chronic pulpitis, or acute apical periodontitis.

TAURODONTISM
An inherited dental morphologic variant characterized by large crowns, short roots, and a very large pulp chamber. The furcation is displaced apically, and there is no cervical constriction.

TEMPORARY STOPPING
(See stopping, temporary) test Any clinical or laboratory procedure used for the purpose of determining the physical or health status of an individual.

ANESTHETIC T.
A diagnostic procedure in which a tooth suspected of being the source of referred pain is anesthetized with a loci anesthetic to determine whether this will alleviate the pain. If the pain is alleviated, the suspected tooth is the probable source of the referred pain.

CULTURE T.
(See root canal, r.c. culture test)

PALPATION T.
The use of the sense of touch through the fingertips to examine tissue for diagnostic reasons, e.g., to determine hardness or softness, smooth or rough surfaces, hot or cold, etc., as in diagnosing the stage of an acute apical abscess.

PERCUSSION T.
A diagnostic procedure designed to help determine the condition of a part by means of tapping the surface and eliciting a sensation, as in acute apical periodontitis.

PULP T.
A diagnostic procedure designed to determine pulp vitality or pulp abnormality, usually by means of an electric pulp tester or by application of a hot or cold stimulus.

TEST CAVITY
A diagnostic procedure in which a small cavity is cut to the dentinoenamel junction or beyond to test for pulp vitality. A sensitive response during cavity preparation usually indicates a vital pulp.

TESTER, PULP
An electric current or battery-powered instrument for testing pulp sensitivity. Response of the patient to this electric stimulus usually denotes pulp sensitivity while no response is indicative of a nonvital pulp.

THERAPY, ROOT CANAL
(See root canal, r.c. therapy)

THIOGLYCOLLATE BROTH
A culture medium used in endodontics because it often enables the dentist to observe the presence of anaerobes without complicated auxiliary supplies.

THYMOL
A colorless, crystalline solid with an aromatic odor; slightly soluble in water but freely soluble in alcohol. Its antiseptic action is slightly greater than that of phenol. Sometimes used in combination with phenol and camphor for the symptomatic relief of acute apical periodontitis.

THYMOL IODIDE N.F.
(See iodide, thymol, N.F.)

TITANIUM ALLOYS
Used in endodontics as root stabilizers when imbedded into alveolar bone through the apical fora-
men of the root canal because of low corrosion and relative inertness.

TOOTH
One of the calcified organs of mastication attached to the alveolar processes of the maxilla and mandible.

T. IMMobilization
(See immobilization, tooth)

T. Perforation
(See perforation, tooth p.)

T. PulPless
(See pulpless tooth)

T. ReplANTATION
(See replantation, tooth)

T. Transplantation
(See transplantation, tooth)

TOxin
A poison of animal, vegetable, or microbial origin.

TrACT, Sinus
(See sinus, s. tract)

Transillumination
The passage of a beam of light through a tooth or other tissue for diagnostic purposes.

Transitional Stage, PulP
(See pulp, transitional pulp stage)

Translucency
The quality of admitting the passage of light. Light transmitted through teeth with necrotic pulps may differ from that transmitted through the coronal part of vital teeth.

Transplantation, Tooth
The transfer of a tooth from one alveolar socket to another either in the same or in different persons.

TrephiNATION
(See fenestration)

Trismus
Motor disturbance of the trigeminal nerve, especially spasm of the muscles of mastication, resulting in difficulty in opening the mouth. The etiology may be infection or injury.

Tugback
Resistance to withdrawal. In endodontics the term refers to the resistance to withdrawal that a fitted gutta-percha or silver point offers when withdrawn from the fully prepared root canal, before cementation in the root canal.

U

ultrasonic canal preparation Involves use of ultrasonics to enhance the effect obtained with handheld reamers and files during canal preparation procedures.

underfilling
A volumetric assessment denoting an incomplete obturation of the root canal space with resultant voids.

urea Peroxide
A crystalline powder composed of urea and hydrogen peroxide. A 10% solution in anhydrous peroxide or in glycerine vehicle has been used as an irrigating solution in root canal preparation.
PULP V.
A living state of the pulp.

WALKING BLEACH
A method of bleaching teeth in which the bleaching agent is sealed into the access cavity of the
tooth and is replaced weekly until the desired shade of tooth is attained.

WEEPING CANAL
Refers to cases in which a clear, serous exudate or a slightly bloody exudate emanates from the
root canal during endodontic treatment. Usually the tooth is asymptomatic or only mildly sympto-
matic and swelling rarely occurs.

WORKING DISTANCE*
(diagnostic working length, working length) The distance from a reference point on the crown of a
tooth (usually the incisal edge or cusp tip) to the point at which the root canal filling should termi-
nate.

XYLENE
(xylo|) Dimethylbenzene. A colorless, volatile liquid obtained from coal tar, having physical and
chemical properties similar to those of benzene. Used in endodontics as a solvent for gutta-percha
and root canal sealer cements.

ZINC OXIDE
A fine, odorless powder usually used in combination with eugenol as a sedative temporary resto-
ration cement for teeth. Also a component of various root canal filling materials, root canal sea-
lers, and other cements, pastes, and surgical packs used in dentistry.

ZIP
Shape which develops at the apex of curved canals during preparation where this site is wider
than an area several millimetres further coronally, thus causing difficulties during canal filling.