

Dental terminology

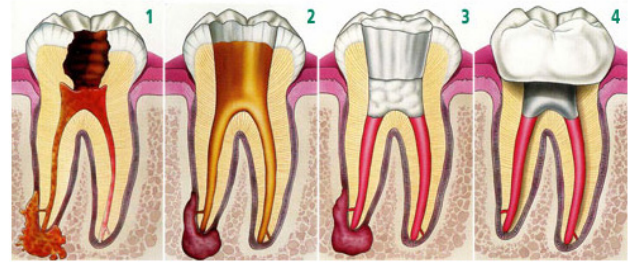
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Lecture 5

Endodontics

Endodontia (within *the tooth*) is the branch of dentistry concerned with the diagnosis, treatment, and prevention of diseases of the dental pulp and its surrounding periradicular tissues.

The endodontic treatment or procedure necessary to treat an inflamed pulpal condition, also known as pulpitis.



Endodontic Treatment Procedures

surgical removal of pulp from the tooth, also known as root canal treatment also known as root canal treatment (RCT).

Apicoectomy: surgical amputation of a root apex.

RCT Instrumentation

Broach: a thin, barbed, wired instrument inserted into the root canal to ensnare and remove the pulp tissue.

Reamer: a thin, twisted, sharp-edged instrument inserted into the canal and rotated clockwise to enlarge and taper the root canal.

File: a thin, rough-edged instrument used to plane and smooth pulpal walls.

Paper points: small, narrow, absorbent, paper tips that may be inserted into the canal; used to dry the canals.

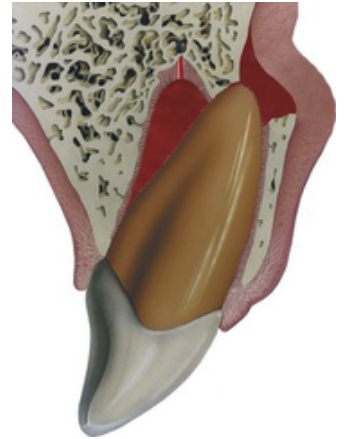
Gutta-percha points: tapered points made of a thermoplastic compound, used to fill the root canal.



Besides treating the infected pulp, the endodontist performs varied procedures for **traumatized teeth**, with a variety of pulp injuries:

Luxation (*dislocation*): tooth movement that may be classified in one of the following ways:

- ❖ *Concussion* (*shaken violently*): tooth loosened as a result of a blow; usually recovers with minimal attention.
- ❖ *Subluxation*: tooth partially dislocated; evidence of bleeding but requires only minor attention.
- ❖ *Lateral luxation*: tooth may be partially displaced with the root apex tilted forward.
- ❖ *Fracture*: breakage; may be a broken cusp, broken crown, broken root, or a split tooth.



Avulsion (*forced or torn away*) teeth that have been accidentally lost; may undergo RCT at this time or at a future appointment. Care of an avulsed tooth involves:

1. Do not touch tooth root.
2. Rinse with tepid water.
3. Reinsert into tooth socket, hold in place with finger; if unable, tuck under lip, or keep moist in milk.
4. Seek immediate treatment—fast—because time is important.

Replantation: replacing an avulsed tooth in its tooth socket. In some rare cases, if RCT cannot be completed in a conventional manner, the tooth may be extracted, undergo RCT, and then be reinserted and stabilized into the same alveolus.

Transplantation: transfer of a tooth from one alveolar socket to another.

Prosthodontics

A prosthesis is a replacement for a missing body part. In the dental field, it may be a fixed or removable appliance that replaces removed or nonerupted teeth. A fixed appliance, such as a cemented crown, is placed in the mouth and is not intended for removal. A removable appliance is placed in and out of the mouth at the patient's will.

Types and Characteristics of Prosthodontic Materials

Porcelain (*hard, translucent*): shells, veneer covers, or facings fused to the surface of a metal crown to give the appearance of a natural tooth surface; often abbreviated PFM (porcelain fused to metal).

Acrylic: synthetic resin material used in fabrication of appliance parts.

Titanium: corrosion-resistant, lightweight, strong bio-compatible metal used in dental implants and posts.

Zirconia: corrosion resistant, bio-compatible material, similar to titanium; used for implants.

The choice of which material to use for an appliance depends on the characteristics of that material relevant to prostheses construction.

Associated terms are:

Hardness: ability of a material to withstand penetration.

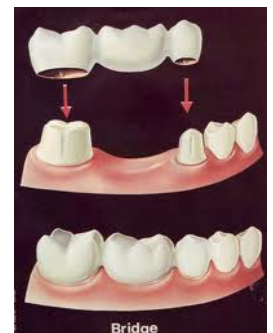
Tensile strength: capability of a material to be stretched.

Elasticity: ability of a material to be stretched and then resume its original shape

Fixed Prosthodontics

Various fixed prosthodontic appliances are used in mouth restoration, from the singular crown to a full arched bridge.

- **Fixed bridge**: cemented into the oral cavity and not removed by the patient.



➤ Dental implant

Removable Dental Prostheses

Prostheses that the patient can take in and out at will are called removable prostheses.

- ❖ **Complete denture** (removable *appliance composed of artificial teeth set in an acrylic base*): full denture designed to replace the entire dentition of an upper or lower arch.
- ❖ **Partial denture**: removable appliance usually composed of framework, artificial teeth, and acrylic material; replaces one or more teeth in an arch.
- ❖ **Overdenture**: prosthetic denture that is prepared to fit and be secured on implant posts or on prepared retained roots.

Procedures and Methods Used in the Prosthodontic Practice

A **dental impression** is a negative imprint of hard (teeth) and soft tissues in the mouth from which a positive reproduction (or cast) can be formed.

Casts are accurate, three-dimensional replicas of a patient's teeth, which are made by pouring the impressions.

Impression Trays

Dental impressions of the mouth are accomplished by placing the desired material into a carrying device and inserting it into the patient's oral cavity. The specific device used to transport the impression material depends on the site to be reproduced.

Miscellaneous Prosthodontic Services

Maxillary obturator : palatal cover device worn in the mouth to cover genetic openings into the nasal area, such as a cleft palate.

Sport mouth guards: custom-made semi-hard forms to be inserted in times of contact sports.