

Abrasion is the loss of tooth structure by mechanical forces from a foreign element. If this force begins at the cement enamel junction, then progression of tooth loss can be rapid since enamel is very thin in this region of the tooth. Once past the enamel, abrasion quickly destroys the softer dentin and cementum structures.

Possible sources of this wearing of tooth are toothbrushes, toothpicks, floss, and any dental appliance frequently set in and removed from the mouth. The appearance is commonly described as V-shaped when caused by excessive pressure during tooth brushing.

The teeth most commonly affected are premolars and canines.

Bridge is a prosthesis used in place of missing teeth and may be removable or permanently attached.

A typical removable bridge will contain a simulated tooth and wire hooks that grip the adjoining teeth.

A typical permanent bridge will span a missing tooth by removing the original surface the adjacent teeth and cementing to them a common crown shaped to the original surfaces of the two mounting teeth and the missing tooth between. This method is generally used only for the replacement of the second premolar and molar teeth (the grinding teeth behind the canines). The recipient of such a bridge must be careful to clean well under this prosthesis.

Cosmetic dentistry is a discipline within dentistry in which the primary focus is the modification of appearance of a patient's oral cavity and surrounding structures, rather than the prevention and treatment of organic, structural, or functional oral disease. Through cosmetic dentistry, the appearance of the mouth can be altered to more closely match the patient's subjective concept of what is visually pleasing.

Crown, or full-coverage restoration (sometimes incorrectly called a **cap**) is a prosthetic tooth designed by a dentist and usually created by a lab technician (or more recently, a CAD-CAM machine). Crowns can be either metal, porcelain fused to metal (PFM), or all porcelain/ceramic. Metals can either be noble metals or base metals, noble metals having higher content of gold, platinum or palladium. Noble metals are typically more accurate when they are cast by the lab technician and offer a better bond with porcelain. Noble alloys in PFMs have a much lower incidence of allergic reactions as they do not contain nickel. All porcelain restorations can be made from feldspathic (traditional) porcelain, lithium disilicates, aluminous porcelains, or zirconias. All ceramic restorations typically are not as strong as those with metal substructures and can cause increased wear of the opposing teeth.

Dental fillings are inserted as **restorations** in the treatment of dental cavities, after drilling out the cavities. The purpose of drilling is to remove the enamel and dentin that has had its structural integrity compromised by the invasion of acid-producing bacteria.

However, once the infected hard tissues have been removed, the resulting cavity preparation must be filled in order to restore structural integrity to the tooth. This will prevent further damage to the tooth and hopefully avoid the eventual need for the tooth to be extracted.

Periodontics is the study of *clinical* aspects of the supporting structures of the teeth (i.e. the periodontium), which includes the gingiva (gums), alveolar bone (jaw), root cementum, and the periodontal ligament. The word comes from the Greek words *peri* meaning around and *odons* meaning tooth. Literally taken, it means study of that which is "around the tooth".

Root canals are the long passages full of soft tissue deep within the dentin of a tooth, adjoined the pulp chamber. In dentistry, a **pulpectomy** is an **endodontic treatment** to cure an infection of the root canal; informally a *root canal*. A root canal, coupled with internal tooth bleaching, is also used to fix teeth that have blackened due to infiltration of decayed soft tissue into the dentin in the teeth, most often seen in frontal incisors that have been injured through a sudden impact.

Wisdom teeth are third molars that usually appear between the ages of 18 and 20 (although they may appear when older, younger, or may not appear at all). Often they need to be removed when they impact against other teeth—colloquially known as "coming in sideways."

Wisdom teeth are sometimes described as an example of a "vestigial" trait. Some argue that recent changes to softer diets which cause less wear on the teeth may be causing the third molars to be less useful, and, in fact, problematic in many humans. Alternately, it is possible that wisdom teeth were useful when it was common for humans to lose several teeth to decay by the age when they appear.

Veneer is a thin layer of restorative material placed over a tooth surface, either to improve the aesthetics of a tooth, or to protect a damaged tooth surface. There are two types of material used in a veneer, composite and porcelain. A composite veneer may be directly placed (built-up in the mouth), or indirectly fabricated by a dental technician in a dental laboratory, and later bonded to the tooth, typically using a resin cement such as Panavia. In contrast, a porcelain veneer may only be indirectly fabricated.

A **dental implant** is an artificial tooth root replacement and is used in prosthetic dentistry. There are several types. The most widely accepted and successful is the Osseo integrated implant, based on the discovery by Professor Per-Ingvar Brånemark that titanium could be successfully incorporated into bone when osteoblasts grow on and into the rough surface of the implanted titanium. This forms a structural and functional connection between the living bone and the implant.

Orthodontics (or *orthodontia*) is a specialty of dentistry that is concerned with the study and treatment of malocclusions, which may be a result of tooth irregularity, disproportionate jaw relationships, or both.

Orthodontic treatment can focus on dental displacement only, or can deal with the control and modification of facial growth. In the latter case it is better defined as "Dento-Facial Orthopedics". Orthodontic treatment can be carried out for purely aesthetic reasons - improving the general appearance of patients' teeth and face for cosmetic reasons- but treatment is often prescribed for practical reasons, providing the patient with a functionally improved bite (occlusion).

Temporomandibular joint disorder (TMJD or TMD), or **TMJ syndrome**, is an acute or chronic inflammation of the temporomandibular joint, which connects the lower jaw to the skull. The disorder and resultant dysfunction can result in significant pain and impairment. Because the disorder transcends the boundaries between several health-care disciplines—in particular, dentistry, neurology, physical therapy and psychology—there is a variety of quite different treatment approaches.

Dental sealants are a dental treatment consisting of a plastic material to one or more teeth, for the purpose of preventing dental caries (cavities) or other forms of tooth decay.

Dentures (also known as **dental plates**), can be defined as a set of artificial teeth, which are used when a patient has lost real teeth on the **mandibular arch**, the **maxillary arch**, or both. Patients can become entirely edentulous (without teeth) due to severe malnutrition, genetic defects such as *Dentinogenesis imperfecta*, ineffective oral hygiene or trauma. Dentures can help give the edentulous patient better **masticatory** (chewing) abilities, as well as enhance the **esthetic appeal** of their lips in specific and their entire face in general. They are most associated with pensioners.

Tooth bleaching, also known as **tooth whitening**, is a common procedure in general dentistry but most especially in the field of cosmetic dentistry. Many people consider white teeth to be an attractive feature of a smile. A child's deciduous teeth are generally whiter than the adult teeth that follow. As a person ages the adult teeth often increase in value--that is to say, they become darker. This darkening is due to changes in the mineral structure of the tooth, as the enamel becomes less porous. Teeth can also become stained by bacterial pigments, foodstuffs and tobacco.

Retainers are often used after braces have been removed to hold teeth in their new position while surrounding gums and bone adjusts to this new position. Often a person will need to wear them only at night. The length of time one must wear a retainer varies, but an average teenager will usually be advised to wear it into their early 20s, or even longer under special circumstances.

Dental braces (also known as **orthodontic braces** or **brackets**) are a fixed appliance used in orthodontics to correct alignment of teeth and their position with regard to bite. Braces are often used to correct malocclusions such as under bites, overbites, cross bites and open bites, or crooked teeth, and various other flaws of teeth and jaws, whether cosmetic or structural. They can be used on either upper or lower sets of teeth, or both, depending on the problem they are being used to treat. Orthodontic braces are often used in conjunction with other orthodontic appliances to widen the palate or jaws, create spaces between teeth, or otherwise shape the teeth and jaws. Most orthodontic patients are children or teenagers; however, more and more adults are seeking out orthodontic treatment.

Nightguard - A plastic mouthpiece to prevent damage from grinding teeth at night.

Invisalign is the invisible way to straighten teeth without braces. Invisalign uses a series of clear, removable aligners to gradually straighten teeth, without metal or wires.

ZOOM! – Teeth whitening solution that works in 3, 15 minute sessions to brighten you teeth by 8 shades.

BRITE SMILE – Spa with locations mostly on the Western half of the United States. They offer teeth whitening and luxury accommodations.

Laser Dentistry / Waterlase - Waterlase uses the Hydrokinetic process which gently washes away decay with YSGG laser-energized water droplets. Hydrokinetic energy is produced by combining a spray of atomized water with laser energy. The resulting Waterlase (HydroKinetic) energy gently and precisely removes a wide range of human tissue including tooth enamel (the hardest substance in the body), and soft tissue (gum tissue) with no heat or discomfort in most cases.

Used for:

- Root Canals
- Decay Removal
- Cavity Preparation
- Smile Design
- General soft tissue procedures
- General dentistry for enamel and dentin