

Toothache / Tooth Pain

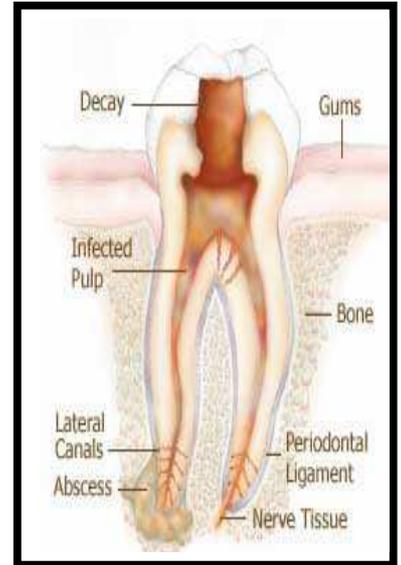
What are the most common causes of Toothaches?

The most common causes of a toothache include dental cavities, dental abscess, gum disease, irritation of the tooth root, cracked tooth syndrome, temporomandibular joint (TMJ) disorders, impaction, and eruption.

What is a Toothache?

A "Toothache" usually refers to pain around the teeth or jaws primarily as a result of a dental condition. In most instances, toothaches are caused by tooth problems, such as a dental cavity, a cracked tooth, an exposed tooth root, or gum disease. However, disorders of the jaw joint (temporo-mandibular joint) can also cause pain that is referred to as "toothache." The severity of a toothache can range from chronic and mild to sharp and excruciating. The pain may be aggravated by chewing or by cold or heat. A thorough oral examination, which includes dental X-rays, can help determine whether the toothache is coming from a tooth or jaw problem and the cause. In some cases, a referral to a specialist may be necessary to determine further treatment.

Sometimes, a toothache may be caused by a problem not originating from a tooth or the jaw. Pain around the teeth and the jaws can be symptoms of diseases of the heart (such as angina or heart attack), ears (such as inner or external ear infections), and sinuses (air passages of the cheekbones). For example, the pain of angina (inadequate supply of oxygenated blood to the heart muscle because of narrowing of the arteries to the heart) is usually located in the chest or the arm. However, in some patients with angina, a toothache or jaw pain is the only symptom of their heart problem. Infections and diseases of the ears and sinuses can also cause pain around the teeth and jaws. Therefore, evaluations by both dentists and doctors are sometimes necessary to diagnose medical illnesses causing "toothache."



Dental Cavities and Dental Abscess

The most common cause of a toothache is a dental cavity. Dental cavities (caries) are holes in the two outer layers of a tooth called the enamel and the dentin. The enamel is the outermost white hard surface and the dentin is the yellow layer just beneath the enamel. Both layers serve to protect the inner living tooth tissue called the pulp, where blood vessels and nerves reside. Certain bacteria in the mouth convert simple sugars into acid. The acid softens and (along with saliva) dissolves the enamel and dentin, creating cavities. Small, shallow cavities may not cause pain and may be unnoticed by the patient. The larger deeper cavities can be painful and collect food debris. The inner living pulp of the affected tooth can become irritated by bacterial toxins or by foods and liquids that are cold, hot, sour, or sweet, thereby causing toothaches. Severe injury to the pulp can lead to the death of pulp tissue, resulting in tooth infection (dental abscess). A small swelling or "gum blister" may be present near the affected tooth as well. Toothaches from these larger cavities are the most common reason for visits to dentists.

Treatment of a small and shallow cavity usually involves a dental filling. Treatment of a larger cavity normally involves a crown. Treatment for a cavity that has penetrated and injured the pulp or for an infected tooth is either a root canal procedure or extraction of the affected tooth. The Root Canal procedure involves removing the dying pulp tissue (thus avoiding or removing tooth infection) and replacing it with an inert filling material. The procedure is used in an attempt to save the dying tooth from extraction. Once a Root Canal procedure is done, the tooth is more prone to fracture and will oftentimes require a Post & Core and a Crown to protect it. *A root canal, permanent filling, post & core, crown lengthening, bridge, and a crown are considered separate procedures and each has its own service charge.*

Gum Disease

The second most common cause of toothache is gum disease (periodontal disease). Gum disease refers to inflammation of the soft tissue (gingiva) and abnormal loss of bone that surrounds and holds the teeth in place. Gum disease is caused by toxins secreted by certain bacteria in "plaque" that accumulate over time along and under the gum line. This plaque is a mixture of food, saliva, and bacteria. An early symptom of gum disease is gum bleeding without pain. Pain is a symptom of more advanced gum disease as the loss of bone around the teeth leads to the formation of deep gum pockets. Bacteria in these pockets cause gum infection, swelling, pain, and further bone destruction. Advanced gum disease can cause loss of otherwise healthy teeth. Gum disease is complicated by such factors as poor oral hygiene, family history of gum disease, smoking, and family history of diabetes.

Treatment of gum disease always involves oral hygiene and removal of bacterial plaque and tartar (hardened plaque). Moderate to advanced gum disease usually requires a thorough cleaning of the teeth and teeth roots called "scaling and root planing" and "subgingival curettage." Scaling and root planing is the removal of plaque and tartar from exposed teeth roots while subgingival curettage refers to the removal of the surface of the inflamed layer of gum tissue. Both of these procedures are usually performed under local anesthesia and may be accompanied by the use of oral antibiotics to overcome gum infection or abscess. Follow-up treatment, if necessary, may include various types of gum operations. In advanced gum disease with significant bone destruction and loosening of teeth, teeth splinting or teeth extractions may be necessary.

Cracked Tooth Syndrome

"Cracked tooth syndrome" refers to a toothache caused by a broken tooth (tooth fracture) without associated cavity or advanced gum disease. Biting on the area of tooth fracture can cause severe sharp pains. These fractures are usually due to chewing or biting hard objects such as hard candies, pencils, nuts, etc. Your dentist can usually detect the fracture by painting a special dye on the cracked tooth or shining a special light on the tooth. Treatment usually involves protecting the tooth with a full-coverage crown made of gold and/or porcelain. However, if placing a crown does not relieve pain symptoms, a root canal procedure may be necessary.

Tooth Root Sensitivities

Toothache can also be caused by exposed tooth roots. Typically, the roots are the lower two-thirds of the teeth that are normally buried in bone. The bacterial toxins dissolve the bone around the roots and cause the gum and the bone to recede, exposing the roots. The condition of exposed roots is called "recession." The exposed roots can become extremely sensitive to cold, hot, and sour foods because they are no longer protected by healthy gum and bone.

Early stages of root exposure can be treated with topical fluoride gels applied by the dentist or with special toothpastes (such as Sensodyne or Denquel) which contain fluorides and other minerals. These minerals are absorbed by the surface layer of the roots to make the roots stronger and less sensitive to the oral environment. Dentists may also apply "bonding agents" to the exposed roots to seal the sensitive areas. If the root exposure causes injury and death of the inner living pulp tissue of the tooth, then a root canal procedure or tooth extraction may be necessary.

Impaction and eruption

Dental pain can also come from teeth that are erupting (tooth growing out or "cutting") or are impacted (tooth has failed to emerge into its proper position and remains under gum and/or bone). When a molar (the large teeth at the back of the jaw) tooth erupts, the surrounding gum can become inflamed and swollen. Impacted teeth cause pain when they put pressure onto other teeth or bone and are inflamed and/or infected. Treatment for impacted teeth is usually pain medication, antibiotics (for infections), and surgical removal. This most commonly occurs with impacted molar (wisdom) teeth.

Temporomandibular joint (TMJ) disorders

Disorders of the temporomandibular joint(s) can cause pain which usually occurs in or around the ears or lower jaw. The TMJ hinges the lower jaw (mandible) to the skull and is responsible for the ability to chew or talk. TMJ disorders can be caused by different types of problems such as injury (such as a blow to the face), arthritis, or jaw muscle fatigue from habitually clenching or grinding teeth. Habitual clenching or grinding of teeth, a condition called "bruxism," can cause pain in the joints, jaw muscles, and the teeth involved. Bruxism is often due to life "stress," family history of bruxism, and poor bite alignment. Sometimes, muscles around the TMJ used for chewing can go into spasm, causing head and neck pain and difficulty opening the mouth normally. These muscle spasms are aggravated by chewing or by stress, which cause the patients to clench their teeth and further tighten these muscles. Temporary TMJ pain can also result from recent dental work or by the trauma of extracting impacted wisdom teeth.

Treatment of temporo-mandibular joint pain usually involves oral anti-inflammatory over-the counter (OTC) drugs like ibuprofen (Motrin or Advil) or naproxen (Aleve). Other measures include warm moist compresses to relax the joint areas, stress reduction, and/or eating soft foods that do not require much chewing. If bruxism is diagnosed by a dentist, a bite appliance (night guard) may be recommended that is worn during the night to protect the teeth. However, this bite appliance is used mainly to protect the teeth and may not help with joint pain. For more serious cases of joint pain, a referral to a TMJ specialist may be necessary to determine further treatment.