Mouth Matters Dorion on Dentistry

Cracked Tooth Syndrome

Cracked tooth syndrome (CTS) is a common but sometimes difficult to diagnose problem. It occurs when a hairline crack develops in a back tooth. It can be difficult to diagnose because these fine cracks don't show up on x-ray and are often hidden from view underneath an existing filling.

There are two major categories of cracks that can lead to CTS. The first involves horizontal or oblique cracks that undermine a single cusp (or corner) of the tooth. These are less likely to cause major problems and are generally simple to repair. The second type is much more serious and involves central cracks that run from the front of the tooth to the back. These cracks more frequently cause inflammation in the nerve and can eventually cause the tooth to split

down the middle. While CTS symptoms may include sensitivity to hot and cold, a typical presentation is pain upon the release of biting pressure. This is referred to as rebound tenderness and occurs because the crack opens then closes

a tiny amount when a load is applied then released. This minute opening and closing movement stimulates the tooth's nerve resulting in the pain you feel.

It can be difficult for someone with symptoms of CTS to precisely pinpoint which specific tooth is involved since the pain is so brief in duration and because dental nerve fibres are not of the type that allow us to sense location. If, on the other hand, the pain is longer in duration and easy to locate, the problem may be more severe and has likely caused inflammation that extends into the tissues around the tooth.

It is also quite common for a tooth with a significant crack to be pain free; the first sign being the sudden loss of a large piece while eating. Painless cracks are sometimes found during an examination when they are visible at the edges of the tooth. We might also find them within teeth during filling replacement. Of course teeth with root canals have no nerve remaining to warn of a problem, so catastrophic fracture of the tooth can occur before you realize anything is wrong. This is why we almost always recommend a cap or crown for root canal treated teeth.

There are numerous risk factors that can lead to CTS including grinding and clenching (which may occur during sleep), accidental biting on hard, rigid objects like olive pits, or popcorn kernels, or habitual chewing of hard substances such as ice cubes. Although any tooth can be cracked if the right amount of force is applied, the most commonly affected teeth are those with large fillings.

The placement of a large filling can reduce the strength of a tooth considerably, especially the older style silver filings that are not bonded into place. Silver amalgam fillings also expand with age which alone can crack teeth.

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Unfortunately, fractured teeth do not heal themselves like other bones in your body. In fact, most cracks

progress over time just like a crack in the windshield of your car that gets a little longer every time you hit a bump. If left untreated the tooth may need root canal treatment to remove the inflamed nerve tissue. In the worst cases, a crack can go all the way through the tooth or into the root below the level of the jaw bone. These teeth usually can not be saved.

Small cracks are easily treated with an appropriately designed filling. Larger cracks are usually best treated by placing a crown that envelopes the tooth with a strong protective covering and helps prevent fracture or nerve damage by further progression of the crack.

The earlier CTS is diagnosed and treated the better the prognosis for your tooth. If you think you have cracked tooth syndrome, see your dentist right away because... your "Mouth Matters".

Yours for better dental health,

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