

Did she say I'm crazy, or might my tooth be cracked?

A common tooth problem many face today, and even more will face in the future, is cracked tooth syndrome or fractures of tooth cusps and weak enamel. Many patients come to me concerned about a small surface 'crack' that they see, which is what we refer to as crazing. When I describe this in an exam, it does sound confusing. This is similar to the fine cracks you might see in the surface glaze of fine china, not necessarily a weakened part of the structure. These are often caused by the rapid and alternate exposure to hot and cold extremes. In teeth, these can come from say a bite of ice cream followed by a sip of hot cocoa or coffee. The crazing is not the problem. This repeated cycling over the years can also lead to weakening or deeper fracture lines forming between tooth and filling materials because of their different (technical term alert!)... coefficients of thermal expansion. I know, that's a big word, but it pretty much sums up why anyone who has his own teeth now is suffering from the broken tooth craze. The good news is, because almost all teeth in the 20th century were filled with silver amalgam, their owners still have them! The bad news is, because almost all teeth in the 20th century were filled with silver amalgam, their owners will suffer from some form of cracked tooth problem.

Some other causes may be malocclusion with chronic clenching or grinding your teeth, a hard blow to the mouth leading to a crack or fractured tooth, and aging of teeth that have been heavily restored may leave the teeth susceptible to cracking. One very common yet easily preventable type of tooth fracture is that of a tooth that has had a root canal. In our office, the standard treatment recommendation that goes along with a root canal diagnosis is the recommendation for a full crown after endodontic treatment to help protect the remaining susceptible crown and root from fracture. The number one cause in our office is certainly chewing on hard objects (nuts, hard pretzels, popcorn hulls, hard candy and ice) that result in an immediate separation of a piece of the tooth from its foundation.

So, if you have an actual cracked tooth, then how do you know? This problem can be quite insidious, going undetected till it's too late and a root splits, or causing nagging slight symptoms for months or even years. If you have an area of your mouth where you get an "uncomfortable sensation" when you chew, or the tooth "feels weak", then you most likely have a cracked tooth. The pearl you found in your cereal this morning may be a sign (sorry, that's your buccal cusp from the upper left bicuspid, not a prize from the box). A crack often is not visible on the outer surface and likewise, will not even, dare I say very rarely, be apparent on an x-ray. Many cracked teeth may give no sign or symptoms. The gaping hole discovered by the tongue may be your first clue. Often, cracks are found when a filling is removed for another reason. Once discovered, a repair can be accomplished along with the treatment of the original problem.

If you are lucky enough to have sudden sensitivity or pain (did he really say lucky??) to hot, cold, sweets, sticky or hard foods, and you can locate the exact spot, it will be helpful to the dentist in diagnosing this condition. If biting cause's symptoms and when you release the pressure, a sharp pain occurs as the crack closes, this is very helpful in locating the offending cusp. Yes, I did say lucky, if you have a cracked tooth and it cannot be located, the result may be a fracture that gradually progresses into the root of the tooth. This will result in an unrestorable tooth that will have to be extracted and replaced, an obviously much more costly problem to treat.

Diagnosing cracks and fractures can be puzzling at times. X-rays may reveal underlying decay or cracks in fillings, but rarely show the most common type of cracks. Incomplete cracks may only be revealed by removing a filling and viewing the tooth internally, you should be glad if your dentist recommends doing an assessment preparation. This may prevent the need for a later root canal or even worse, possible tooth removal. The crack lines may be vertical or horizontal or oblique, depending on the stresses applied to the tooth cusps. Teeth most likely to fracture usually have non-bonded, metal restorations. Many times, cracks may only be revealed by using magnification or light application and subsequent refraction. An intraoral camera is perfect for this method of detection. Sometimes, there is uncertainty as to whether it is a top or a bottom tooth, and on occasion, it is both a top and bottom tooth. There is no rule that says you can only have problems with one tooth at a time! Biting on a cotton swab or device designed to reproduce symptoms from pressure will help locate fractures intentionally. Disclosing dyes may be used to better show the origin and extent of a fracture line. If you are really, really lucky, you may have a dentist who will recognize that early detection and treatment is the best service that she can provide in dealing with the cracked tooth phenomenon. If you have read any of my previous articles, you will know that is a theme that I stress. Stabilizing a symptomatic or weakened tooth with a bonded composite filling or a full crown will be the more favorable option and less likely lead to tooth loss or more extensive treatments. Again, the wait and see approach will only lead to more unfavorable and limited treatment options.

During the last half-century, most dentists restored teeth rather than extract them. The next half-century we will be dealing with preserving those retained/restored teeth, but that is a definite improvement over placing full dentures. The best news is the next generation will not be dealing with the cracked tooth as much because we have preserved their teeth by preventing decay and the need for fillings to begin with! Pretty cool, eh? Now, if we can only come up with some new space age coating to apply to a restored tooth to prevent the cracks...

Healthy Tips



Tips On Sleep

Learn to fall asleep and stay asleep more easily using these techniques. Try to go to bed at the same time each night and wake up at the same time each morning, regardless of how much sleep you've had. Avoid caffeine, tobacco and alcohol before bedtime. Ask your doctor or pharmacist if medications could be disrupting your sleep. Exercise regularly. Avoid overeating or under eating in the evening.