HOW TO AVOID THE APPEARANCE OF CRACKS ON TEETH?

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Permanent teeth are given to a person once and for a lifetime, however, the load on them can be excessive, which sometimes entails a wide variety of negative consequences. Tooth enamel is the hardest material in the body, when it is destroyed, the tooth will most likely not be restored. Therefore, it is better not to bring the matter to cracks, chips and other damage to the enamel.

How do i find out if a tooth is cracked?

Cracked teeth show various symptoms, including unstable pain when chewing, possibly with a decrease in bite pressure, or pain when the tooth is exposed to extreme temperatures. In many cases, pain can come and go, and it can be difficult for the dentist to determine which tooth is causing discomfort if there is no visible damage yet.

Why does a cracked tooth hurt?

To understand why a cracked tooth hurts, you need to delve into the anatomy of the tooth. Inside it, under the white enamel and a hard layer called dentin, there is an inner soft tissue called pulp. The pulp contains the nerves and blood vessels of the tooth.

When the outer hard tissues of the tooth crack, chewing can provoke the movement of fragments, and the pulp can become irritated. Eventually, the pulp is damaged to such an extent that it can no longer heal on its own. The tooth will not only hurt when chewing, but it can also become sensitive to temperature changes. Over time, a cracked tooth may start to hurt on its own. Extensive cracks can lead to infection of the pulp tissue, which can spread to the bone and gum surrounding the tooth.

What types of cracked teeth are there?

Cracks and fractures of the tooth come in various degrees. A tooth is cracked when it is damaged with lines on the surface, but not completely broken; a fracture means that the tooth is broken or divided into several parts. The following types of damage are most often found in dental manuals:

- Surface crack of the enamel

Cracks on the outer surface of the tooth enamel are vertical lines usually found on the front teeth of an adult. They are really superficial, at the same time painless and usually do not cause any problems other than aesthetic ones. Depending on the size, plaque may accumulate on them, but in general, there is no danger to the integrity of the tooth from them.

Surface cracks occur as a result of years of wear, prolonged squeezing or grinding, eating solid foods such as popcorn kernels, or chewing ice. Other causes include oral injuries, using teeth as tools, chewing objects, biting nails, forming rings on the tongue, prior drilling of the tooth, and sudden extreme temperature changes such as eating something hot and then something very cold.

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Treatment of a superficial crack is usually not required, so you can leave such a tooth alone or, possibly, carry out cosmetic restoration if the person is aesthetically uncomfortable. Crack lines cannot be completely removed, so a veneer (composite or porcelain material covering the front of the tooth) may be recommended to cover them.

• Fracture of the tubercle

A broken tubercle weakens and usually breaks off on its own. This is the kind of fracture that occurs even from a piece of soft bread. The most common areas of tubercle fractures are the bumps on the tongue side of the lower back teeth and on the buccal side of the upper back teeth. At the same time, the pulp is rarely damaged and severe pain does not occur.

A tubercle fracture occurs when it weakens due to prolonged excessive effort or severe caries. The usual factors that cause a fracture of the tubercle are chronic gnashing and clenching of teeth, injuries, unsuccessful restorations and biting off solid food. Symptoms may include pressure pain and/or bite pain. Other symptoms may include temperature sensitivity, acute pain when chewing, gum irritation and a sharp tooth edge, which is often noticed by the tongue.

The treatment of these fractures usually involves the installation of a crown, the purpose of which is to cover and protect the tooth. In some cases, a filling may be recommended depending on the size of the broken tooth. If the fracture is deep in the tooth, the root canal will help restore the tooth. If the fracture is detected at an early stage, before the tooth breaks, an overlay can be applied to the cracked tubercle.

• Tooth crack

A cracked tooth is an incomplete fracture that originates from the chewing surface of the tooth and spreads vertically to the root of the tooth. When the enamel cracks, it causes the crack area to move, causing irritation of the pulp. Eventually, the pulp is damaged so much that the tooth can no longer recover, which leads to unstable pain.

The pain can range from hypersensitivity at extreme temperatures and chewing to constant, lingering pain that keeps you awake at night. Excessive occlusal force — the force acting on the opposing teeth when the jaws are closed or clenched — are the main factors in the formation of a crack in the tooth. A cracked tooth is more focused on the chewing surface. Since a cracked tooth progresses to the root, there is a greater chance of root pathosis (tooth root disease).

Treatment depends on the severity and depth of the crack. There are two types of cracks: treatable and non-treatable. For a curable tooth, a crown is usually a treatment option to repair the tooth and prevent the crack from progressing. At this stage, early detection is crucial because the crack can steadily worsen, leading to tooth extraction (which would classify it as incurable).



• Split tooth

A split tooth is the end result of an untreated incomplete cracked tooth. It extends from the tip of the tooth to the subgingival space and laterally from the proximal part to the proximal part of the tooth. It may split suddenly due to prolonged crack growth. The segments of the teeth are completely disconnected and even loosened. Splitting can be the result of harmful "dental" habits, such as gnashing teeth, clenching them hard, chewing ice, chewing objects and consuming excessively solid food.

If the tooth can be saved, treatment of the root canal and crown is recommended. If the tooth cannot be saved, the treatment consists in removing it.

• Vertical fracture of the root



A vertical root fracture begins at the root of the tooth and extends upward to the chewing surface. The fracture may affect part of the root or the entire length of the root, moving in the direction from the cheek to the tongue. This fracture is usually found when bones and tissues are infected.

A vertical fracture of the root can be seen on the X-ray. Most root fractures are associated with a history of root canal treatment. A dental hygienist or dentist will usually find a deep, narrow pocket along the root.

The treatment consists in extraction, since root fractures have a poor prognosis and are not treatable. In some cases, the dentist may try root resection — removal of a broken root.

• Chipped tooth



Another condition that sometimes does not fall into the classification is chipped teeth. They usually turn out to be complications of grinding during orthodontic manipulations. In fact, the classic sign of grinding is small accidental chips, small pieces of enamel that break off from the tooth. It should be noted that chipping can also be provoked by excessively solid food, oral injuries, accidents, and gnashing of teeth.

There are usually small chips on the front teeth, which can be caused by anything from natural wear and impact of dishes or glass bottles on the front teeth to using teeth as tools for biting off threads, opening or holding objects. Chipped teeth may appear jagged or rough when touched with the tongue. If there are chips on the front teeth, they are clearly visible in the mirror or in photographs.

Treatment options depend on the size of the chip. In many cases, it is recommended to leave it alone, or it will be enough just to smooth out the chipped area. If it is small and smoothing does not benefit the tooth, then fixation with a composite or porcelain material will be adequate. In the case of larger chips, your dentist may recommend veneers if bonding cannot be performed; if it is larger than a chip, a crown is the best option.

Will a cracked tooth heal completely after treatment?

Unlike a broken bone, a fractured cracked tooth does not heal. Despite treatment, some cracks may continue to progress and separate, leading to tooth loss. Installing a crown on a cracked tooth provides maximum protection, but does not guarantee success in all cases.



The treatment that the patient receives for his cracked tooth is important because it will ease the pain and reduce the likelihood that the crack will worsen. After treatment, most cracked teeth continue to function and provide years of comfortable chewing. It is better to discuss specific recommendations with the attending dentist.

Prevention of cracks on teeth



Although cracks in teeth cannot be completely prevented, some steps can be taken to reduce the susceptibility of teeth to cracks:

• Do not chew hard objects such as ice, popcorn kernels that have not popped, or ballpoint pens.

• Do not use teeth as a tool for opening bottles, packages, biting off threads or fishing line, cracking nut shells, etc.

• Do not clench your jaw with force, do not grind your teeth. In the event that the gnashing is nocturnal and involuntary (bruxism), it is necessary to talk to the attending dentist about wearing retainers or other dental protection products at night.

• Use a mouth guard or protective mask when practicing contact sports.

Early detection is crucial for saving a damaged tooth. As a rule, cracks are not clinically visible, and in most cases they are diagnosed by symptoms. Tell your dentist if you feel any symptoms such as cutting, especially while eating, or if chewing on the other side of your mouth becomes a habit to avoid pain.

At home, it is necessary to monitor a suspicious tooth, how often unpleasant

sensations occur, how often this happens (once a month or at every meal), what irritates it (temperature or food intake), whether the pain is delayed or immediately passes after the stimulus is eliminated. It may be difficult to tell exactly which tooth is hurting, but you can use an improvised home test: put your finger on a suspicious tooth and put a little pressure on it. If the sensations are not reproduced, try the same on the adjacent teeth.

When faced with any of the described problems, it is better to consult a dentist as early as possible: delaying increases the chance of a complete fracture of the tooth with the need for more expensive treatment options, as well as irreparable tooth loss.

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