

# Cracked Tooth Syndrome

Cracked tooth syndrome is the term given to a variety of symptoms caused by a tooth with a crack in it. The crack may also be referred to as a fracture or a split. Not all cracks and fractures cause pain, some may not be visible to the eye, and many are not detectable on a dental x-ray.

It is important to locate and treat cracks early where possible, as this may improve the chances of saving the tooth by preventing the crack from progressing through the tooth. Should this happen, the crack may run through the tooth and involve the pulp which contains the nerves leading to possible infection. The crack also may run through the root of the tooth reducing the chances of successful root canal treatment and the tooth may require extraction. Occasionally, the tooth may split in half, and in this case the tooth usually requires extraction.



## Symptoms of a Cracked Tooth

- 1 Sharp pain on chewing, especially hard foods, and sometimes upon release of the bite pressure
- 2 Pain or discomfort with hot or cold food and drinks
- 3 Sensitivity to sweet food and drinks
- 4 Difficulty locating which tooth is giving pain
- 5 Gum symptoms, where the root of the tooth has been involved by the crack
- 6 A history of other cracked teeth and symptoms of bruxism (clenching and grinding teeth)

## Causes of a Cracked Tooth

1. Large fillings may weaken teeth and make them more prone to fracture
2. Bruxism, or clenching and grinding of the teeth, especially at night, can cause teeth to crack. The long term wear caused by bruxism can also cause teeth to slowly crack.
3. Chewing on particularly hard foods or other substances, e.g. ice, pencils
4. Trauma to the teeth, especially where the teeth and jaws have hit together

## DISCUSS YOUR TREATMENT WITH YOUR DENTIST

*This information leaflet is intended to provide general information about the treatment. It is important for you to always discuss your treatment with your dentist, which will depend on many factors including age, condition and position of your teeth, as well as pre-existing conditions and the degree of the problem.*

*Your dentist cannot guarantee treatment will be successful and it is important that you fully discuss treatment, all costs and the likely expected outcome.*

*We encourage you to discuss in detail anything you are unsure of or are unhappy with about your teeth.*

## Diagnosis

Cracked teeth can be difficult to diagnose. Symptoms may be intermittent and the crack is often undetectable to the eye and on x-ray. Your dentist will examine your teeth for signs of wear, visible cracks, the way your teeth bite together and teeth with large fillings and weakened cusps.

Your dentist may ask you to bite on a hard bite stick to locate the source of the pain, and identify a possible crack. Temperature tests may aid in identifying which tooth is the source of the pain.

The gums may be examined by use of a probe to assess the extent of a crack .

Whilst many cracks are not identifiable on dental x-ray, your dentist may wish to take an x-ray to exclude other causes of pain. Root fractures may cause bone loss or infection which may be seen on an x-ray.

It may be necessary to remove a filling in a possible cracked tooth to assess underneath the filling. This may show the extent and direction of the crack. Magnification, staining or transillumination (shining a special light on the tooth surface) may be used to aid identification of a crack.

## COST

Costs vary according to the nature and extent of the crack, and any additional preventive measures needed, for example provision of a night guard. Your dentist will provide you with an estimate of cost before you decide to proceed with treatment. If complications occur, and further treatment is required, your dentist will advise you of this at the earliest opportunity.

## Treatment of a Cracked Tooth

Early treatment is usually advised to prevent or slow down the progression of a crack in a tooth, thereby increasing the chance of saving the tooth. The treatment advised will depend on the severity and position of the crack.

### Simple crack

For most teeth with a simple crack, the treatment will involve removal of the cracked portion of the tooth or cusp, and restoring it with a filling or an inlay. Your dentist may advise you that, if a tooth is heavily restored or cracked, a more effective option to prevent further damage by cracking may be to place a crown over the tooth. The crown protects the remaining tooth and may prevent the crack from progressing. Sometimes a stainless steel band and sedative filling may be placed on the tooth, or a temporary crown may be placed before crowning to assess whether the pain can be treated in this way. Should the pain not successfully subside, it may be advised that root canal treatment is necessary before proceeding.

### Complex crack

If the crack extends to the pulp of the tooth and is causing inflammation or infection of the pulp, root canal treatment may be needed before the tooth is restored with a filling, inlay or crown. This will require additional appointments. Your dentist may wish to refer you to an endodontist to further assess whether root canal treatment will be successful, if the crack is complicated.

### PREVENTION

It may be advised, if you are showing signs of clenching and grinding (bruxism) that you wear an occlusal splint (night guard) in order to reduce the possibility of further cracks/fractures.

Trauma from sports injuries can be reduced by wearing a sports mouth guard.

You should avoid chewing hard objects such as ice, hard sweets and habits such as pen or pencil chewing. Good oral hygiene, i.e. brushing and flossing will minimise your need for large fillings, which can weaken your teeth over time.