Chipped Teeth

Chipped teeth (or fractures of the crown of the tooth) can be unsightly, sharp, and risk damage to the underlying tooth tissue. Teeth can chip due to trauma, but they can also fracture through underlying tooth decay (cavities). Teeth that are brittle due to root canal treatment, congenital abnormality or tooth grinding (bruxism) may chip more easily.

A tooth may have damage to its hard tissue – a chip or fracture of the crown or crown and root – or it may have damage to the supporting soft tissues and blood vessels. The fracture can go through enamel only, through into the sensitive yellow tissue under the enamel [dentine] or into the nerve and blood vessels [pulp]. It is important to have the affected teeth checked to ensure that any injures are treated appropriately and promptly.

The long-term prognosis for any tooth depends on how severe the injury is and how rapidly it is treated. No matter how small an injury seems, if a tooth has been knocked or chipped, dental advice should be sought immediately.

First aid for chipped teeth:

- Calm the patient down
- Wash the blood away with plenty of cold water
- Put a cold compress on bleeding soft tissues, e.g. lips, gums, or tongue
- Find all the parts of the chipped tooth and store the fragments in water
- See a dentist immediately.

Treatment options

The dentist may ask how the accident happened, when it happened, and where the injury occurred. This information is important to establish the exact nature of the blow and whether other treatments such as tetanus booster should be considered. They will also want to know if there have been previous injuries to the affected teeth.

The dentist will usually take an X-ray of the chipped tooth to establish whether there are any injuries to the root or surrounding tissues. The X-ray will show how near the pulp the chip has gone.

A simple chip may be smoothed and no restorative treatment be required. This treatment is reserved for small chips in enamel only. Chips into dentine usually require treatment, as dentine is porous and, with time, bacteria may find their way through the porous structure and cause decay or an infection of the nerve.

The dentist may temporarily dress the tooth to prevent further damage, and book a longer appointment to complete further work. The fractured piece of tooth may be used to replace the missing fragment using a bonding agent.

Tooth-coloured filling material can be bonded to the tooth to replace the missing portion. It is made of plastic with quartz or glass particles embedded into it. It is shaped by the dentist onto the tooth, and set using a special blue light.

Veneers (porcelain laminates) can also be used to repair broken or chipped teeth. They are as thin as a fingernail and fit over the visible surface of the tooth. Two visits are required; on the first visit a small amount of the tooth is removed, and an impression is taken which is then sent to a laboratory. A technician at the laboratory will make the veneer. The veneer will be bonded to the tooth at the next visit.

Crowns are usually recommended for teeth that have already been treated for decay, or for teeth that have been extensively damaged. They require the removal of 1.0 mm –1.5 mm from all around the tooth. An impression is taken from which the laboratory will make the crown. A temporary crown is then fitted. The permanent porcelain one is fitted once it is has been manufactured.

Any damage to the nerve of the tooth may not be apparent immediately, but it can slowly die. The tooth may become discoloured, usually grey. Root treatment may then be required. Patients who have had injuries to either their first or second teeth need dental follow up. Injuries to first teeth may affect the underlying second teeth. Both sorts of teeth may appear fine at first, but they may show a reaction months or years after the event.

A dentist will be able to advise about the necessary follow-up period, and also discuss treatment alternatives in order to restore the smile.

Prevention

Participation in sport causes many teeth to be chipped, fractured or knocked out. A thorough check-up at the beginning of each season is desirable as is a mouth-guard fitted by a dentist. Even non-contact sports such as skateboarding, squash and cycling can cause chipping to teeth.

Patients with physical disabilities are more likely to have chipped teeth. Dentists can advise on protection for this group of people.

Prominent anterior teeth, especially those not covered by the lips, are vulnerable and are twice as likely to be fractured. Orthodontic treatment (aligning the teeth with braces) reduces this risk.

Seat belts in cars help prevent trauma to teeth, mouth and face, as well as the rest of the body.