

CROWNS AND BRIDGES

Artificial crowns

Although the outside of each tooth is made of strong and hard enamel, teeth can be chipped, broken or weakened due to:

- trauma (such as a fall)
- tooth decay
- large fillings
- root canal treatment to remove the tooth's pulp, which contains blood vessels and nerves
- age-related wear and tear.

An artificial crown is often the best way to save a tooth and strengthen it. The crown fits over the prepared existing tooth and replaces the natural crown.

Bridges

A bridge replaces one or more missing teeth. It consists of an artificial tooth anchored to the adjacent natural teeth. If a tooth is lost through an accident, or is too badly decayed to save with a crown, a bridge may be the treatment of choice.

Ask your dentistry or prosthodontist about dental implants, which is another way of replacing missing teeth.

Materials

Crowns and bridges are often made of porcelain and metal alloy. Porcelain is strong and can be made to match the colour of the natural teeth. It is resistant to staining and can be cleaned if it becomes stained.

Metal alloy is used for its strength, hardness and durability. It is especially useful for molars, which must withstand the forces of grinding and crushing. Metal alloy and porcelain are well tolerated by the gum and cheek.

Teeth have functions apart from chewing and biting, so missing teeth should be replaced:

- to improve appearance and speech
- to prevent stresses that cause damage to other teeth
- to prevent the teeth near the gap from shifting
- to maintain the natural bite
- to improve chewing ability.

All general practitioner dentists are qualified to fit crowns and bridges. A dentist with specialist training in crown and bridge work is called a prosthodontist.

Based on your dental and medical history, X-ray examinations of your teeth and jaws, and an oral examination, your dentist or prosthodontist will recommend the treatment that is best for you.

You will require at least two appointments for preparation and fitting of a crown or bridge. Sometimes a tooth will need a root canal filling, and perhaps a post or foundation, before crown or bridge treatment.



Taking impressions of teeth

On your first visit, the dentist or prosthodontist takes an impression of your upper and lower teeth to make a permanent record of their appearance and how they fit together when your jaws are closed (known as "occlusion").

To make an accurate reproduction of your upper and lower teeth, a jaw-shaped tray is filled with a soft, gel-like material, pushed onto your teeth and held in place to set for three to five minutes.

Preparation for a crown

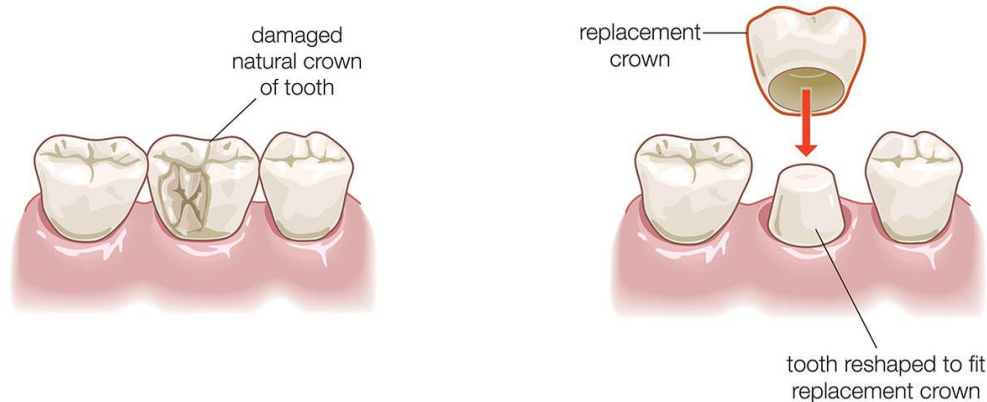
After the area is numbed with a local anaesthetic, the tooth is shaped using a drill, making it smaller by one to two millimeters. After shaping, another impression is taken to record changes to the prepared tooth.

The impressions are sent to a dental technician who makes the crown according to specifications provided by the dentist or prosthodontist.

To protect the prepared tooth, a temporary crown is attached to the reshaped tooth with temporary cement. As a temporary crown is not as strong as the final crown, you should chew on the opposite side of the mouth and avoid sticky or hard foods.

At the second appointment, the temporary crown is removed. The new crown is placed over the reshaped tooth to check that shape and colour match. If they do, the crown is cemented to the tooth with dental cement. Dental cement usually sets in less than one hour and reaches full strength in 24 hours.

After fitting, the crown should feel comfortable and natural in your mouth. When testing your occlusion, your dentist or prosthodontist relies partly on what you say about the feel of your bite, so mention any uncomfortable or strange sensations. Minor adjustments are often needed to achieve comfort.



Preparation for a bridge

The steps in preparing and fitting a bridge are similar to those for a crown. The teeth on either side of the gap are shaped by drilling.

These teeth are fitted with crowns, which serve as anchors for the replacement tooth that is attached to the framework of the adjacent crowns. The whole piece is then cemented firmly in place.



Hygiene and care: Crowns and bridges should last for many years. However, there is no lifetime guarantee. As with natural teeth, it depends on good dental hygiene, oral health and the forces you apply to your teeth. Therefore, regular dental check-ups are advisable.

Crowns and bridges require regular flossing and brushing, with extra attention around the margin where decay is more likely. Special devices including floss threaders and “superfloss” are available for cleaning under a bridge. Your dentist or prosthodontist will show you how to clean your crowns and bridges properly.

Possible complications of crown or bridge treatment

As with any dental or medical treatment, crown and bridge procedures have risks, despite the highest standards of practice. The following possible complications are listed to inform and not to alarm you. There may be others that are not listed.

Tooth breakage during preparation

When the affected tooth is evaluated, your dentist or prosthodontist knows whether its structure is strong enough to take a crown. If there is doubt, the existing filling may be replaced or the structure reinforced before shaping the tooth. Problems that occur during preparation can be corrected at that time, before taking the final impression.

Infection of the pulp or gums

Infection may affect the teeth in two places:

- in the soft tissue inside the tooth, called the pulp
- in the gums around the base of the teeth.

Whenever enamel is removed, there is a small risk that the underlying pulp may die and become infected. If this occurs, the tooth may need root canal treatment. To avoid gum infection, additional steps may be needed in your dental hygiene routine, especially to clean completely under the bridge. Poor cleaning may cause “gum recession”, where the gum shrinks away from the neck of the tooth.

Pain or discomfort

During treatment of a tooth, surrounding gum may be injured and feel tender as the effects of anaesthesia wear off. Any pain should not last beyond two days. If pain persists, contact your dentist or prosthodontist.

Altered feeling

If the size of a tooth is changed even a slightly, it can have an effect on the way it feels in the mouth, especially when chewing or biting or when the jaws are closed. It is important that you advise your dentist of any uncomfortable or odd feelings at the time of fitting the crown or bridge. If any discomfort continues beyond a few days, inform your dentist, as extra adjustments may be needed.

Loose crown or bridge

A correctly fitted crown or bridge should be secure. Contact your dentist if the new work has any movement. A crown may be dislodged by a strong force. If this happens, the crown can be cleaned, disinfected and re-cemented in place.

Allergic reactions

Allergic reactions to alloy or porcelain are rare. If you suspect an allergic reaction, contact your dentist or prosthodontist.