

# Crowns / Onlays

A crown or onlay is used to entirely cover a damaged or heavily restored tooth. Teeth which are heavily restored; those which have been replaced on multiple occasions or teeth which have undergone root canal treatments are generally brittle and are highly susceptible to fracture.

## How do Crowns Work?

A crown is a type of dental restoration which completely caps or encircles a tooth or dental implant. Crowns are often needed when a tooth has had a large filling, has broken repeatedly in the past or has had endodontic (root canal) treatment in the past.

A crown is used to:

- address a filling/tooth which has broken repeatedly in the past
- strengthen these teeth
- prevent further fracture, which can result in extraction in some cases
- preserve remaining tooth structure
- improve the appearance, shape or alignment of a tooth
- mask a discoloured tooth



Heavily Restored Tooth with Fracture Extending Below the Gum Line



Previously Restored Premolar with Fractured Cusp



Discoloured Tooth Following Root Canal Treatment

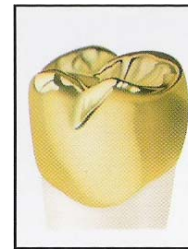
## What are crowns made out of?

Crowns can be fabricated out of a number of materials. This includes:

1. Ceramic (porcelain, engineered ceramic) – tooth coloured with the best aesthetics, however more tooth removal is required to provide for adequate space
2. Metal (gold, metal alloy) – not tooth coloured, however less tooth is removed during preparation
3. A combination of both – tooth coloured with a balance between aesthetics and the amount of tooth removal



Full Ceramic Crown



Metallic Crown (Gold)



Porcelain Fused to Metal Crown

## What is involved?

The crowning process usually takes two separate appointments. These visits are usually scheduled about two weeks apart and the total cost of the crown is distributed over these 2 appointments.

The first appointment (the longer of the 2 appointments) involves shaping the tooth, taking its impression and placing a temporary crown.

During the time period between the two appointments, a dental laboratory technician will fabricate the crown. A temporary crown is cemented to the tooth during this period of time to protect the preparation.

The second appointment, 2 weeks later, involves cementing and adjusting the finished crown.

## How long do crowns last?

Properly cared for crowns should last for several years, some last decades or even a lifetime. How long a crown lasts depends on how well you look after it. The crown itself cannot decay, but decay can start where the edge of the crown joins the tooth. Therefore, it is important to keep this area just as clean as you would your natural teeth in order to prevent decay/gum disease affecting the area; brushing, flossing and a good diet are all essential.

## Large Filling vs. Crown

Placing a filling instead of a crown, especially one that will need to be quite large, isn't typically considered to be ideal treatment. A large filling cannot be expected to give the same type of longevity or create the perfect shape and anatomy like a crown can. Fillings do not provide the same level of protection from fracture and without a crown a tooth may crack or break sometime in the future, possibly irreparably. Porcelain or casted metals are vastly stronger than both amalgam (silver filling material) and composite resin (white filling material). Despite the initial cost of a crown; this is generally cheaper than repeatedly refilling a tooth multiple times in the long term.

## Risks and Potential Complications

- Crowns can sometimes come loose. If this occurs, the crown should be kept safe so that it may be easily recemented in place.
- The porcelain can sometimes fracture if it is in a high load area.
- Sensitivity to extreme temperatures can be expected from newly crowned vital teeth. If this persists then the tooth may need root canal treatment. The preparation may reveal an additional condition, which could alter the planned treatment.



**BEFORE**

Heavily Restored Amalgam Restorations

**AFTER**

All Ceramic Crowns

## Dental crown

