

## History

Most people's idea of a filling in a back tooth is of an unsightly mercury amalgam or gold filling. However, recent advances in dental materials mean that many teeth can be restored or filled with materials that mimic the colour and appearance of the natural teeth. Whilst amalgam remains a superb filling material there have been concerns of the use of metals in the mouth, particularly those containing mercury. It is



because of these concerns that there has been a push to develop other non-metallic materials that perform as well.

## What is a White Filling?

A simple white filling is actually a material called composite resin. This is a plastic like substance that is available in a wide range of shades to match your natural tooth. Modern materials contain a light sensitive agent so that the material is fully set when the patient leaves the surgery. Until recently, although they have been around for over 40 years, they were used in small restorations usually in

front teeth. Improvements have been made that now allow for placement in carefully selected cavities in back teeth as well. In addition because of the aesthetic nature of the material they can be used to make improvements in the shape and colour of teeth to give an improved cosmetic appearance.

## What are the advantages of composite?

- The main advantages of posterior white fillings are the aesthetics.
- We can match the filling colour to your natural teeth and with skill accurately mimic the natural appearance of the tooth.
- The fillings also bond (stick) to the tooth. This means that cavities do not need to be made as big (compared with amalgam). This preserves the natural tooth substance preserving the strength of the tooth and in all probability reducing the likelihood of as many future problems with the tooth.
- Because the materials are set using a special light, the filling is fully set when the patient leaves the surgery. There is no need to be careful for 24 hours as with amalgam fillings.
- Bonding the filling into the tooth can also mean that the tooth is not so sensitive to temperature following filling.

- Teeth that are broken and do not have any ability to hold in an amalgam or gold filling can sometimes be restored with composite.
- Fillings that are only slightly damaged or chipped can sometimes be repaired without having to replace the whole filling.

## Are there any disadvantages?

- It takes longer to place the filling.
- The cost of material is higher; together with the increased time to place the filling this increases the cost.
- The colour can change with time and may pick up some staining from tea, coffee etc.
- Even with the recent advances the wear of the filling is not quite as good as amalgam so the filling may need to be replaced slightly sooner.

## How is a composite placed?

The composite material is very sensitive to water until it is set. For this reason the dentist may need to protect your tooth from the rest of the mouth. The cavity is then prepared removing all the decay and old filling and the filling is placed. Once the tooth is cleaned and

conditioned the dentist places the composite in layers, using a special light to set each layer. Once this is complete it will be necessary to polish and shape the filling in the mouth. When the process is finished, the dentist will shape the composite to fit the tooth. As with any treatment on a tooth, for a short period of time the tooth may be slightly sensitive to temperature.

### How long does it take to place a composite?

It takes longer to place the white filling due to all the stages involved. It depends on the dentist but may take two and a half times as long as placing an amalgam filling. (Prof FJT Burke University of Birmingham)



### What is the cost?

The cost and number of the materials used is higher than amalgam. The filling takes longer to place. Consequently the cost is higher.

### How long will a composite last?

Studies have shown that composites last 7-10 years, which is comparable to silver fillings except in very large restorations, where silver fillings last much longer than composites.

### Do I need to care for the filling any differently?

Good oral hygiene is essential if any dental restoration is going to last well. Plaque can build up on teeth and is acidic. This in time may dissolve the bond between the filling and the tooth. It is very important to keep the teeth clean particularly in the areas between teeth with good brushing, flossing and regular visits to the hygienist or dentist.

### Alternatives

Not all cavities or teeth can be filled with composite. Your dentist can advise you. Very large cavities, people with a heavy bite or who grind their teeth may not be suitable for composite. These materials will improve in time. Alternatives may include the use of inlays or crowns.

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# Tooth Coloured Fillings