Fillings – information for patients

What is a filling and why is it necessary?
Fillings are a way to rebuild teeth that have been broken or weakened by decay.

Decay happens when the enamel and dentine of a tooth become softened by acid attack after you have eaten or drunk anything containing sugars. Over time, the acid makes a cavity (hole) in the
tooth. 'Dental decay' is the same as tooth decay and is also known as 'dental caries'.

What happens if I decide not to get dental decay treated?
If left untreated, decay will normally spread. As the decay gets near the dental pulp you from toothache. If the toothache is brought on by hot or sweet foods this may last for only a few
seconds. As the decay gets closer to the dental pulp the pain may last longer and you may need to take painkillers - paracetamol or ibuprofen - to control the pain. You must visit your dental team straight away as the tooth is dying, and you may develop a dental abscess if it is not treated.

If the decay spreads far enough, it will weaken the remaining tooth structure which may then break. This can reduce the options for saving the tooth.

How long does the treatment take?
This depends on the size of the filing needed, the choice of filing material, and how many fillings need doing. The dentist will run through all the options with you and formulate a treatment plan.

Preparing the tooth for a filling
The dentist will give you a local anaesthetic and shape the cavity for a filling. If the tooth does not have a nerve then you may not need a local anaesthetic.

This preparation will involve removing the decay and possibly some enamel in order to get the ideal shape for the filling. The amount of the tooth removed will depend on the extent of decay present, but will be done as conservatively as possible.

After preparation, the tooth can sometimes feel very sensitive to temperature, especially cold. This will ease once the permanent crown is placed.

Placing the filling
The tooth will need to be kept dry while the filling is placed, and the dentist may need to place cotton wool rolls or instruments to keep saliva away. Depending on the type of material being placed, there may be several stages to the filling, with application of certain gels or pastes, and rinsing and drying in between. The dentist and nurse will make sure you are as comfortable as possible, but it is important to hold your mouth open during this process.

How will the filling look and feel?

Fillings can be made of a variety of different materials and new materials are continually being introduced. Some of the most popular options are listed below:

Amalgam: Amalgam fillings are silver coloured. They are made by combining mercury and a silver alloy (50% mercury, 35% silver, and 15% tin, copper and other metals). Amalgam is long lasting and hard wearing and has been used in fillings for at least 150 years. It is economical to use and it is not unusual for an amalgam filling to last 15 to 20 years. This kind of filling is usually used on the back 'chewing' teeth.

The mercury in dental amalgam is not poisonous once it is combined with the other materials in the filling. Its chemical nature changes so that it is harmless. Research into the safety of dental amalgam has been carried out for over 100 years. So far, no reputable 'controlled' studies have found a connection between amalgam fillings and any medical problem.

Composite: Composite fillings are strong but may not be as hard wearing as amalgam fillings. Composite fillings are tooth coloured and are made from powdered glass quartz, silica or other ceramic particles added to a resin base. After the tooth is prepared, the filling is bonded onto the area and a light shone onto it to set it. The dentist will choose a shade to match your own teeth, although over time staining can happen.

Glass ionomer: Glass ionomer fillings form a chemical link with the tooth. They may also release fluoride, which helps to prevent further tooth decay. This type of filling is fairly weak. Because of this, they are usually only used on baby teeth and 'non-biting' surfaces such as around the 'necks' of the teeth. Little preparation is needed as the filling bonds directly to the tooth.

Because the shape of the filling will be slightly different from the shape of your tooth before it was filled, you may be aware of it at first. Within a few days it should feel fine, and you will not notice it. The filling may need some adjustment if your bite does not feel comfortable, and if this is the case, you should ask your dentist to check and adjust it. Rarely, patients have reported muscle soreness or tenderness of the jaw joints (TMJ).

Risks and complications

How long your filling lasts depends on how well you look after it. Properly cared for fillings can last for many years.

Although all care and diligence is exercised when preparing teeth for fillings, there are no promises or guarantees of anticipated results or the longevity of the filling.

A local anaesthetic will be used during the preparation of the tooth. In rare instances patients may have a reaction to the anaesthetic. There may be swelling, jaw muscle tenderness or even numbness of the tongue, teeth, lips, jaws and/or facial tissues which is usually temporary, or, rarely, permanent.

You may need to hold your mouth open for long periods of time during the treatment. This may leave your jaw feeling sore or stiff and may make it difficult to open wide for a few days. This will ease with time.

Following preparation of the tooth, you may experience mild to severe sensitivity. This may be for only a short period of time or for longer. If it persists, please contact the practice so they dentist can review it for you.

Although a filing can restore the shape of the tooth by replacing missing tooth structure, there are still risks to the tooth. Risks include:

- the nerve of the tooth can die off due to the extent of previous decay or trauma, or the extent of dental work required to restore the tooth – this would result in the need for root canal treatment or extraction of the tooth
- prolonged/severe sensitivity may also require root canal treatment

Fillings can chip or break. Many factors could contribute to this such as chewing excessively hard foods, changes in biting forces, traumatic blows to the mouth etc. Unobservable cracks may develop in the tooth or filling due to these factors, but the breakage may not become apparent until later.
Breakage or chipping due to defective materials seldom occurs.

Your tooth can still be affected by dental decay. The filling itself cannot decay, but decay can start where the edge of the filling joins the tooth. Brush last thing at night and at least one other time during the day with a fluoride toothpaste, and clean in between your teeth with ‘interdental' brushes or floss. If decay does occur, you may require further treatment on the tooth, or possibly extraction.

It is your responsibility to seek advice from the dentist should you experience any problems.

By undergoing the treatment, you accept the risks mentioned above, possible unsuccessful results or failure of the filling.