Inlays/Onlays – information for patients

What are inlays and onlays and why are they necessary?
Inlays and onlays are an ideal option when the cavity is too large for a filling but the structure of the tooth is still sound. Therefore, rather than re-shaping a sound tooth to fit under a crown, your dentist can simply use an inlay or onlay. An inlay fills the gap in the tooth while the onlay is applied to the top of the tooth – but apart from positioning they essentially play the same function.

Usually, inlays and onlays are used to restore the back teeth as these are the teeth that do the most work, are the hardest to clean and often suffer the most from decay. Sometimes, they are also used to replace older amalgam fillings. The reason for this is because inlays and onlays can be manufactured from tooth-coloured materials, such as composite resin or porcelain.

How long does the treatment take?
You will need to have at least two visits. At the first visit, your dental team will prepare the tooth, take impressions of the tooth and it's opposing teeth, make a note of the shade of your tooth (if necessary), and place a temporary filling. At the second visit, your dentist will fit the permanent inlay/onlay. There will usually be about 2 weeks between appointments.

Stage 1 – preparing the tooth
The dentist will give you a local anaesthetic and the preparation work should feel no different from a filling. If the tooth does not have a nerve then you may not need a local anaesthetic. The dentist will prepare the tooth to the ideal shape for the inlay/onlay. The amount of the tooth removed will depend on the extent of the original filling and any further decay, but will be done as conservatively as possible.

Once the tooth is shaped, the dentist will take an impression (mould) of the prepared tooth, one of the opposite jaw and possibly another to show the way you bite together. The impressions will then be given to a dental technician, along with any other information they need.

A temporary filling will be placed so that you can use the tooth while you wait for the inlay/onlay to be made. It is important that you contact the practice if the temporary filling comes out as it may become very sensitive.

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

Stage 2 – fitting the inlay/onlay
Before cementing the inlay/onlay, the dentist will show you how it looks in a mirror. It is vital to say at this stage if there is something you are not happy with, as it can be resolved before the restoration is cemented permanently. When you and your dentist are happy with the fit and appearance of the inlay/onlay, it will be fixed in place with special dental cement or adhesive. The cement forms a seal to hold the inlay/onlay in place.

How will the inlay/onlay look and feel?
Inlays/onlays 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: **Porcelain**: these restorations are made entirely out of porcelain and can look very natural. **Composite**: another tooth-coloured option, but this one is cheaper and less durable than porcelain.
Metal-alloy: gold is one of the oldest filling materials. Today it is used with other metal alloys to increase its strength, which makes it very hardwearing. These restorations are silver or gold in colour.

If a tooth coloured inlay/onlay is chosen, it will be made to match your own tooth shade as closely as possible.

Because the shape of the restoration will be slightly different from the shape of your tooth before it was crowned, you may be aware of it at first. Within a few days it should feel fine, and you will not notice it. The inlay/onlay 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 inlay/onlay lasts depends on how well you look after it. Properly cared for restorations can last for many years.

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

Prior to preparing the tooth for an inlay/onlay, the dentist will take an x-ray to ensure the tooth is healthy and strong enough. This allows any other necessary treatment to be carried out before the restoration is fitted. An x-ray will show decay, infection at the base of the root, and some fractures, but is unable to show hairline cracks.

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 an inlay/onlay can make a tooth stronger 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

Inlays/onlays, and the remaining tooth structure supporting them, 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 due to these factors, but the breakage may not become apparent until later. Breakage or chipping due to defective

materials seldom occurs, but if it does so, it would be soon after fitting. This would be covered by
the laboratory's manufacturing guarantee.

Your tooth can still be affected by dental decay so it is important to keep it clean. The inlay/onlay itself cannot decay, but decay can start where the edge of the restoration 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, a new inlay/onlay, a crown, 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 treatment