

Dental Factsheets

Root canal treatment

Root canal treatment or Endodontics, as it is known, is used to save a tooth when blood vessels and nerves in the centre of the tooth (the dental pulp) die and the tooth becomes infected. The infection is usually caused by decay in the tooth, a large filling or a fracture in the tooth. Without treatment, this can cause a dental abscess resulting in pain, swelling and infection of the jaw bone.

The aim of root canal surgery is to avoid removal of the tooth where possible, as the only alternative to carrying out root canal treatment is to remove it altogether. Although some people would prefer an extraction, it is usually best to keep as many natural teeth as possible.

When the pulp of the tooth is dying or has died, the pulp chamber becomes infected. The body's own natural defences cannot fight the infection because no circulation remains in the tooth. Root canal treatment is used to open up the pulp chamber, clean out the infected remains of the pulp and fill the chamber with an inert (non-active) material to prevent the infection returning.

Disease or infection of the tooth pulp occurs when tooth decay is not treated or when there has been a knock or blow to the tooth or if the tooth has cracked. A loose or broken filling may also cause infection in the tooth pulp.

How is it performed?

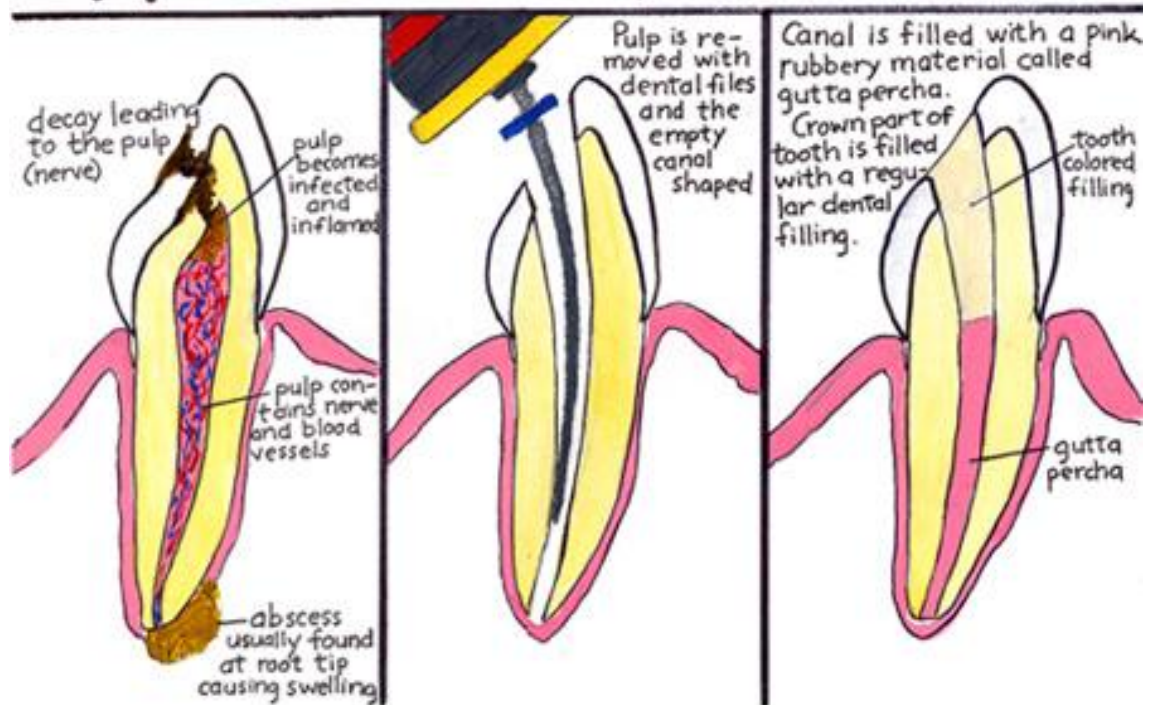
Root canal surgery is usually carried out under local anaesthetic. This will not work in an infected area and it may be necessary to give you antibiotics to settle the infection first and then start treatment a week later.

We will open the tooth through its crown (the flat top part) of the tooth, so that the pulp chamber can be accessed. Any remaining tooth pulp is then removed.

The remaining root canal(s) will be enlarged so that it/they can be cleaned, disinfected and then filled.

The treatment may take two or more visits. Generally, the front, incisor and canine teeth have one canal, premolars have two canals and the back, molar teeth have three. The more roots a tooth has the longer the treatment will take to complete.

Root Canal Treatment



If the treatment is carried out over several visits we may put a small amount of medication in the cleaned canal in between visits to help clear up any remaining germs and bacteria. The tooth will then be sealed with a temporary filling. You may also be given antibiotics to manage and prevent further infection.

Once the root canal has been cleaned out and shaped, the root filling will be sealed tightly into the root canal. The tooth may then be restored with a filling.

Root-filled teeth are more brittle than live ones and in some cases it may be better to put a crown on the tooth to protect what remains of the tooth structure. In some cases a root-filled tooth may darken, particularly if it has died as a result of a blow, and there are several ways we can treat this.

Root canal treatment is usually very successful. However, if the infection comes back the treatment may have to be repeated.

After the treatment

After the final treatment your restored tooth should be pain-free, although it may feel tender for a few days. Over-the-counter painkillers such as paracetamol or ibuprofen can be taken to relieve any discomfort. If pain or swelling remains after this time you should return to us.

You should try to avoid chewing or biting down, especially on hard foods, until the treatment has been completed. This is because root filled teeth become more brittle.

What happens next?

If your tooth requires more complex root canal treatment or surgery, we can refer you to a specialist. In the majority of cases we will be able to let you know if a referral will be necessary at your initial visit.

Unfortunately it is not possible to guarantee success with this treatment. Our surgery is equipped with the most up-to-date materials and equipment to provide excellent endodontic care.

Some infections do not heal even after these procedures have been carried out. If a tooth needs to be removed, several dental procedures can be considered in order to replace it (implant, bridge, or denture). We will be able to advise you on your next best course of action.

Following root canal treatment the tooth will need to be protected to prevent it from breaking any further. An onlay or crown is often the most suitable way to restore your tooth so that it functions well and looks good.

A restored tooth or crown should last for many years without further treatment, as long as you maintain good oral hygiene and come back if any pain or complications arise. Many crowns last an entire lifetime.