

Root Canal Treatment

The aim of root canal treatment (also called “endodontic” treatment) is to save a tooth that has been badly damaged due to decay, disease or injury.

Many millions of teeth each year are saved from extraction by having root canal treatment.

Most people prefer to save their tooth because it generally will function better than an artificial tooth.

Your own tooth is usually stronger and more efficient for biting and chewing. Cleaning and maintenance of

a natural tooth are much easier. However good an artificial tooth can be, it will never be more than just a substitute for a real tooth.

Problems with biting, chewing and oral health are associated with losing a tooth.

For example, nearby teeth can move out of their normal position and tilt into the space left by a missing tooth. This can make chewing and biting difficult, and can lead to further decay and gum disease around the tilted teeth.

Root canal treatment is successful in

most cases. If you take good care of the treated tooth, it may last for many years and possibly for the rest of your life.

Your tooth will not be treated unless the treatment is likely to succeed. Root canal treatment may not be appropriate in some cases, and extraction may be the best, or only, option.

All general dental practitioners are trained to perform root canal treatment. Some patients may be referred by their dentist to another dentist called an “endodontist” who has special qualifications in root canal treatment.

Talk to your dentist or endodontist

This leaflet is a summary of what is known about root canal treatment. It does not replace advice from your dentist or endodontist, and does not contain all known facts on this subject.

If you are not sure about the benefits, risks and limitations of root canal treatment, your dentist or endodontist will be pleased to answer questions or

concerns you may have.

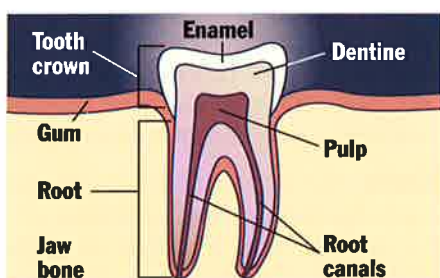
Be certain to give your dentist or endodontist your complete medical and dental history, including medicines you have taken or are taking, reactions to medicines (especially antibiotics), any major illnesses, heart problems or surgery. Any of these conditions may affect your treatment.

For some people who have had rheumatic fever, heart valve problems or other heart problems, some dental treatments have been linked to a risk of “endocarditis”, an infection inside the heart.

Dental practitioners are aware of this risk and will take it into account in their treatment of susceptible patients.

The healthy tooth

The pulp is the soft tissue deep inside a tooth. The pulp contains nerves, blood vessels and connective tissue. It extends from the tooth crown to the tip of each root. The pulp is important for the normal growth, development and health of the tooth. However, a fully developed tooth can function normally without a pulp if root canal treatment has been successful.

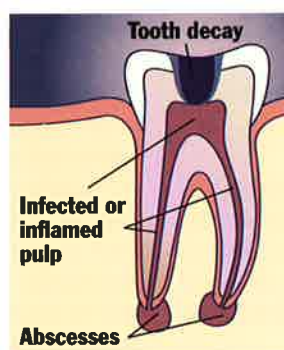


Infection or inflammation of the pulp

Infection or inflammation of the pulp can be caused by:

- ▼ repeated dental work to the tooth
- ▼ breakdown of a filling or crown
- ▼ a deep cavity
- ▼ trauma
- ▼ gum disease
- ▼ crack or chip in the tooth
- ▼ extreme wear.

Symptoms may include pain, sensitivity to heat or cold, tooth discolouration, and swelling or soreness in the gums surrounding the tooth. If the pulp cannot repair itself, it will initially become inflamed. If it is not treated, it will die and become infected. Root canal treatment is then needed to save the tooth.



To improve the chances of success, root canal treatment should start as soon as possible. All root canals in the affected tooth must be treated. The front teeth (incisors) have one or two root canals. Premolars (bicusps) typically have one or two root canals. Molars usually have three or four root canals.

If the pulp of the tooth is not treated quickly, severe pain and abscesses (infections at the ends of the roots) can occur. If an abscess is left untreated, infection can damage the bone surrounding the root. If the tooth does not have endodontic treatment, it will have to be removed.

Dear Dentist or Endodontist:

When you discuss this pamphlet with your patient, remove this sticker and put it on the patient's medical history or card. This will remind you and the patient that this pamphlet has been provided. Some dentists ask their patients to sign the sticker to confirm receipt of the pamphlet.

TREATMENT INFORMATION PAMPHLET

PROCEDURE:.....
 PATIENT'S NAME:.....
 DOCTOR'S NAME:.....
 EDITION NUMBER:.....DATE: (day).....(month).....(year).....

Root canal treatment of the tooth

Your dentist or endodontist will examine the tooth and take a radiograph (X-ray film). A local anaesthetic will usually be given to block pain. A thin sheet of latex, called rubber dam, is used to isolate the tooth and keep it clean and dry during treatment.

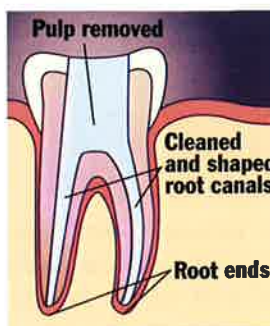
To reach the pulp, an opening through the tooth is made with a dental drill. Using special instruments called files, your dentist or endodontist will remove the inflamed or infected pulp.

Each root canal is cleaned, enlarged and shaped. Anti-inflammatory and anti-bacterial medicines may be put inside the root canal to help stop the inflammation and infection. If a severe abscess has formed at the root tip, oral

antibiotic tablets may be needed to help treat the infection.

You may need to make several visits to the dentist or endodontist to complete the treatment. A temporary filling will protect the inside of the tooth between visits.

Pain or discomfort, if any, usually lasts no more than a few days, and will not be experienced by every patient. Some people may want to take a mild pain reliever such as aspirin, ibuprofen or paracetamol.



Your dentist or endodontist may take several radiographs to check the shape and length of the root canals and the success of the treatment.

After the pulp has been removed, the tooth is not "dead". The tooth can survive without the pulp because it is nourished mostly by tissues around it.

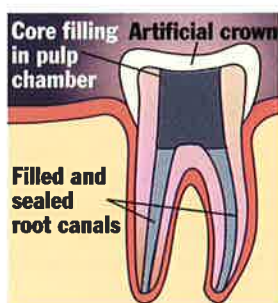
Removal of the root end: In a small number of cases, the end of the root may need to be removed to help treat an abscess. This is called a root-end resection or apicectomy. Rarely, a major portion of the root may need to be removed, which is called a root resection.

If you need a root-end resection or a root resection, your dentist or endodontist can provide more information about this treatment.

Completion of root canal treatment

To protect the inside of the tooth and prevent further infection, the root canals are filled, and the pulp chamber is sealed.

A post may be inserted inside the tooth if it lacks enough structure to support an artificial crown. As the jaw bone surrounding the treated tooth takes some time to heal completely, follow-up visits may be needed to see whether healing has been satisfactory. This is



usually checked by examining the tooth and gums and by taking a radiograph. To help the healing process, you should continue to practice good hygiene, including brushing, flossing and regular check-ups.

FITTING AN ARTIFICIAL CROWN:

If the treated tooth needs to have an artificial crown, your endodontist will recommend that you return to your dentist. Usually an endodontically treated

tooth is at increased risk of fracture without the protection of an artificial crown, so one should be fitted soon after treatment.

Usually made of porcelain or gold, the artificial crown is needed to:

- protect, strengthen and further seal the tooth
- restore normal occlusion (the way the upper and lower teeth contact each other during biting and chewing)
- restore an acceptable cosmetic appearance.

Possible side effects of root canal treatment

As with all dental and medical treatments, root canal treatment has risks. The following list of possible side effects is intended to inform you about some of the potential problems. As other uncommon complications may occur, the list is not complete.

If you have any concerns about possible risks or complications, always ask your dentist or endodontist.

Loss of tooth: While root canal treatment can save most teeth, your dentist or endodontist cannot guarantee that it will be successful in every case. It is not possible to predict how long the treatment will last, but it should last for many years.

Success may depend on a patient's general health, age, capacity to heal, oral hygiene, and many other specific factors affecting the tooth, particularly the amount and strength of the remaining tooth structure.

A very important factor is the final restoration. Be certain to have your tooth restored completely. Otherwise, bacteria can re-enter the tooth and cause another infection.

Infection: Infection in the damaged tooth is likely to resolve completely once treatment is undertaken. The risks of re-infection are low. However, if the infection occurs again, the tooth may have to be treated again or removed.

Discolouration: In some cases, the treated tooth may lose its original whiteness and become darker. If a front tooth is affected, the person may feel unhappy about the tooth's appearance. Discolouration can be treated by bleaching, or an artificial crown or veneer can be fitted.

Pain or discomfort: Some people may continue to have pain or discomfort around the tooth during and following treatment. Your dentist or endodontist may recommend a pain reliever. If the pain is severe or lasts more than a few days, tell your dentist or endodontist. Additional treatment to the tooth may be needed.

Weakness: An endodontically treated tooth may not be as strong and durable as a normal tooth. This is especially true for the back teeth (molars), and this is why a crown is usually recommended.

Altered feeling: During and after treatment, the tooth may feel slightly different from the other teeth. This should disappear gradually. If the difference in feeling persists, inform your dentist or endodontist as further treatment may be needed.

File fracture: Special metal files are used to clean the inside of the root canal. These instruments are very fine and occasionally may break during use. Special procedures may be needed to remove the broken portion

of the file, or you may be referred to a specialist. In some cases, it may not be possible to remove the fractured portion of the file; the long-term effects of this will depend on many factors, such as whether the canal was infected and whether it had been cleaned before the file fractured. Your dentist will discuss this with you in more detail if a file fracture occurs.

Re-treatment: Pain or infection may occur months or years after a tooth has been treated. This is usually due to further deep decay, trauma, a cracked tooth or a cracked filling that allows bacteria to enter the tooth and cause the infection. More endodontic treatment may be needed to save the tooth.

COSTS You should ask your dentist or endodontist for an estimate of the treatment costs, including an artificial crown and follow-up visits. Treatment of molars tends to be more expensive due to the complex shape and the number of root canals in these teeth. Root canal treatment is usually less expensive than the cost of extraction and replacement with an artificial tooth. As the treatment and its outcome may become different from what was first proposed, the final account may be different from the original estimate. It is best to discuss costs before and during treatment.