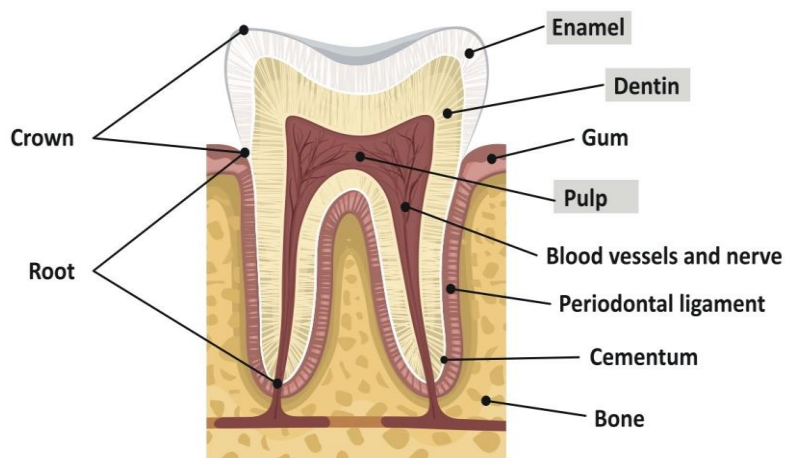


Root Canal Treatment or Re-Treatment

Information for patients

Edinburgh Dental Institute (EDI) – Root Canal Treatment/Re-treatment

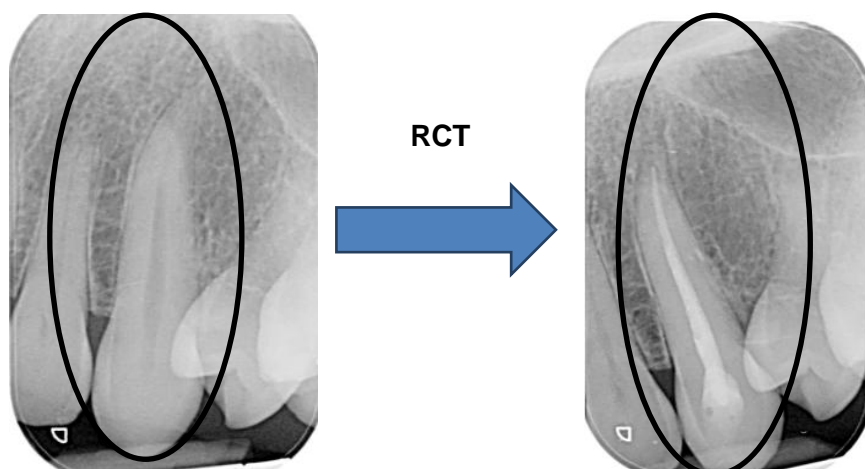
The picture below shows the parts of a tooth. Root canal treatment/re-treatment involves treatment within the pulp of the tooth.



Parts of the tooth

Root canal treatment (RCT)

Root canal treatment is a procedure to treat inflammation or infection of the pulp inside the centre of a tooth.

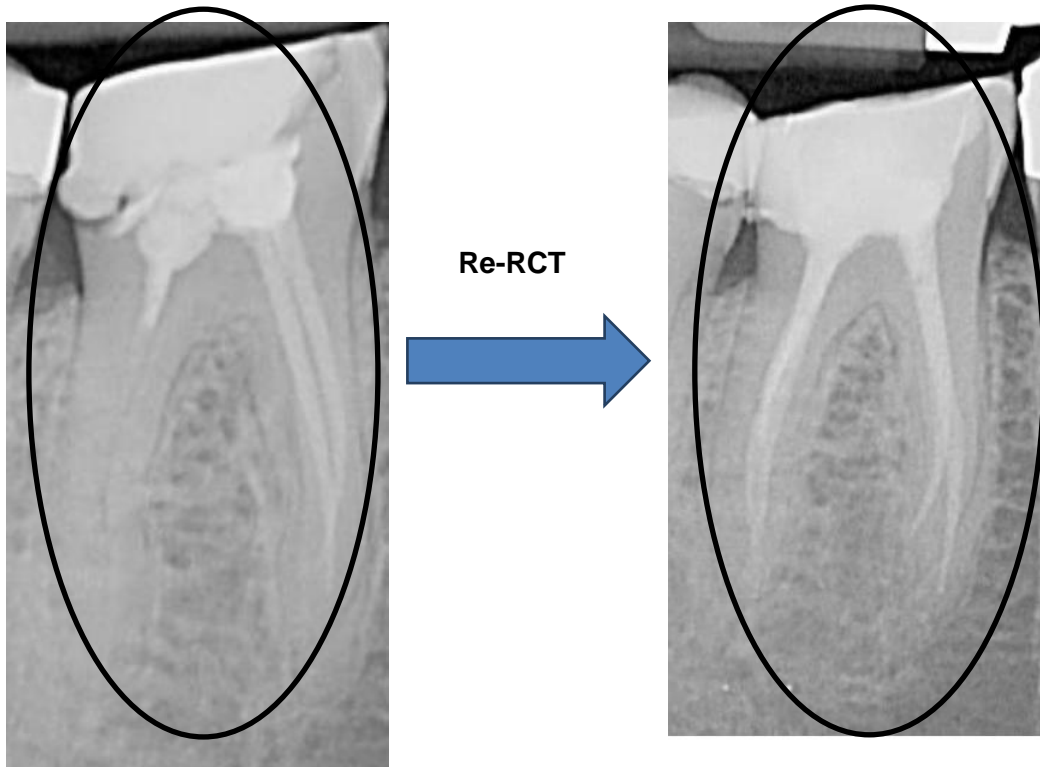


This is an X-ray of a tooth (black circle) before root canal treatment.

This is an X-ray of a tooth (black circle) after root canal treatment. The white material within the root-treated tooth is the root filling material.

Root canal Re-treatment (Re-RCT)

Sometimes, root canal treatment fails. Root canal re-treatment is a procedure to replace a root treatment that has failed.



This is an X-ray of a tooth (black circle) with a failed root canal treatment requiring root canal re-treatment.

This is an X-ray of a tooth (black circle) after root canal re-treatment. The white material within the root-treated tooth is the root filling material.

Why do I need root canal treatment?

Root canal treatment is required when the pulp in the tooth is inflamed or infected. This can happen because of tooth decay, leaking fillings or trauma to the tooth.

Who will perform the root canal treatment?

The Edinburgh Dental Institute (EDI) is a postgraduate training hospital. This means that the **treatment will be performed by qualified dentists who are specialising in the field of endodontics/restorative dentistry**. All trainees are supervised by consultants and specialists in this field.

Do I need to pay for treatment at the EDI?

No, patients accepted for treatment at the Restorative Department, Edinburgh Dental Institute (EDI) are not charged for treatment. However, any further treatment required after root canal treatment has been completed will be provided by your own dentist and may incur a fee. You will need to discuss the cost of treatment with your dentist.

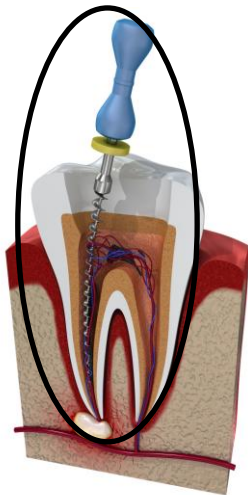
What happens during the procedure?

Root canal treatment is carried out under local anaesthetic (numbing injection) to ensure you are comfortable throughout the procedure. A top-up of the local anaesthetic may be required.

An operating microscope helps us carry out this procedure more accurately.

After you are numb, the following will happen:

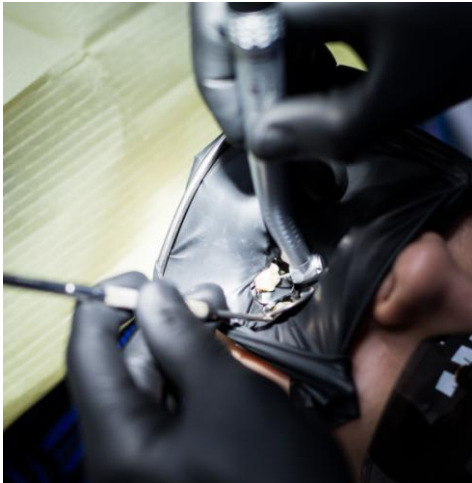
1. A rubber sheet (rubber dam) will be placed on your tooth/teeth to allow for the area to be dry, to avoid contamination by saliva and to protect your airway
2. A hole is made in the tooth to reach the pulp
3. If you have a filling in the tooth/teeth, we may need to remove the filling material to see whether the tooth can be saved before carrying out the procedure
4. The root canals will be shaped and cleaned with approved disinfectants
5. X-rays (radiographs) may be required during treatment
6. Usually one to three visits are needed to complete the root canal treatment, depending on the tooth being treated and how difficult the treatment is
7. If more than one appointment is needed, the root canal/s are dressed with a medicated dressing and a temporary filling is placed in/on the tooth
8. The root canals will be filled with root filling material when the canals have been cleaned
9. In all cases, a final X-ray will be required after the completion of the root canal treatment to check the quality of the root filling provided.



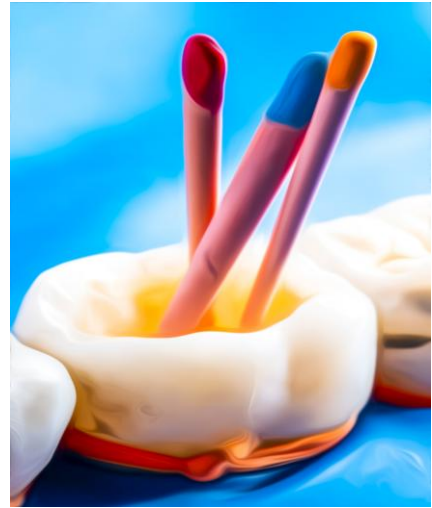
An illustration of root canal treatment with the instrument (black circle) inside the root canal system



An operating microscope



Rubber dam placement. The black sheet is the rubber dam used during root canal treatment/re-treatment



Root filling material



Completed root canal treatment as shown on the radiograph

Potential complications of treatment

With any procedure, there are associated complications, which include:

1. Pain or swelling after treatment
 2. Perforation (creation of a hole away from the actual root canal)
 3. Instrument breaking inside the root canal
 4. Tooth or root fracture
 5. Blockage of the root canals which they cannot be completely shaped or cleaned
 6. Failure to find the root canals and/or unable to access the canals to full length
 7. Leakage of antiseptic agents into the mouth, which can cause severe pain, bruising and swelling
 8. Unsuccessful treatment.
- Not all complications are common. We have ways to manage the complications mentioned above, so you should not be alarmed by them
 - You can take painkillers such as Paracetamol or Ibuprofen to relieve any pain/discomfort.

Who will fill (restore) my tooth/teeth after root canal treatment?

Following the completion of root canal treatment, the tooth will be monitored for signs of healing. In most cases, a permanent filling such as a crown will be needed to protect the tooth. This will reduce the risk of tooth/root fracture. **The final permanent filling will be provided by your dentist.** It should ideally be done as soon as possible after the completion of the root canal treatment.



Final filling material (crown) after root canal treatment



An illustration of partial (inlay and onlay) and full crowns

Who will review the root treated tooth/teeth on completion of root canal treatment?

In most cases, we will ask **your dentist** to review you **1 year after the root canal treatment/re-treatment** has been completed. We will inform you if we need to review you at the Edinburgh Dental Institute.

Further Information

[Patient Video Library - American Association of Endodontists \(aae.org\)](#)

[Root Canal Treatment Step by Step - YouTube](#)

