

EXPLANATION OF ENDODONTIC (ROOT CANAL) TREATMENT OR RE-TREATMENT

The goal of endodontic treatment is to save a tooth that has become infected or damaged. Depending on your clinical needs, this involves either a primary **Root Canal Treatment** or a **Root Canal Re-treatment** (if a previous treatment has failed).

The Procedure:

1. **Access:** An opening is made through the biting surface of the tooth to reach the internal space (the root canal). If the tooth already has a crown or bridge, this may need to be removed and replaced after the procedure is complete.

2. Cleaning & Disinfection:

- **Primary Treatment:** The damaged or infected nerve tissue (pulp) is removed.
- **Re-treatment:** Any existing root-filling material from a previous procedure is removed, and the canals are re-accessed to address resistant bacteria. The internal space is then thoroughly cleaned and disinfected to eliminate bacteria and infection.

3. **Filling & Sealing:** Once the canals are disinfected, they are filled with a biocompatible material (Gutta-percha) to prevent future reinfection. In the case of re-treatment, the goal is to improve the length and compaction of this seal compared to the previous attempt.

ALTERNATIVE OPTIONS TO ROOT CANAL TREATMENT

Option 1: No Treatment ("Wait and See")

Leaving the tooth as it is, carries significant risks because dental infections cannot heal on their own.

- **Pain & Infection:** You risk sudden, severe pain and the formation of a painful dental **abscess** (an infection in the jawbone)
- **Health Risks:** If left untreated, the infection can spread to your jaw, neck, or even your bloodstream, which can become a medical emergency
- **Unpredictability:** Even if the tooth doesn't hurt now, it can "flare up" at any time

Option 2: Tooth Extraction (Removal)

This solves the infection immediately by removing the tooth entirely, but it creates new long-term problems.

- **Shifting Teeth:** Over time, your remaining teeth will tilt or "drift" into the empty gap. This can ruin your bite and make it easier for other teeth to decay.
- **Bone Loss:** The jawbone where the tooth used to be will naturally shrink over time.
- **Future Costs:** To prevent these issues, you would eventually need a bridge, **implant or denture**. These replacements are often much more expensive and invasive than a root canal.

ASSESSING YOUR TOOTH (THE "RESTORABILITY" CHECK)

Before we begin the actual root canal, we must ensure the tooth is strong enough to be saved in the long term. This is known as a restorability assessment.



To do this, we will remove any existing fillings or crowns to get a clear view of the natural tooth structure underneath. We are looking for three specific things:

- **Hidden Decay:** To ensure all softened or damaged areas can be cleared
- **Cracks:** To check that a crack hasn't travelled too deep into the root, which could cause the treatment to fail later
- **Support:** To confirm there is enough healthy tooth left to hold a new crown or filling once the root canal is finished

What happens if the tooth cannot be saved?

If we discover a deep crack or extensive decay that makes the tooth "unrestorable", we will stop the procedure and inform you immediately. In these cases, the most predictable option is usually to extract (remove) the tooth to prevent further pain or infection. Our goal is to ensure we only proceed with treatment if the tooth has a good chance of staying healthy for years to come.

WHAT ARE THE RISKS WITH THE PROCEDURE?

Short-term risks (percentage risk) may include:

- **Transient pain/swelling which may require pain relief – (20% risk)** (this does not reflect on the long-term prognosis of the treatment)
- **Blockage of root-canals** - there is a risk that some canals have been blocked and therefore cannot be negotiated to their entire length. If this is the case, you will be informed during treatment. This may have an impact on the long-term success of the treatment; however, it is impossible to predict without completing the case and reviewing over a 1 to 2-year period.
- **Perforations (extra openings)** of the canal with instruments (which may require referral to (private/NHS) hospital or specialist endodontic services)
- **Separation of instruments (less than 5%)** used in the root-canal procedure. If this occurs, you may require referral to a specialist hospital if the instrument cannot be retrieved.
- **Hypochlorite injury (less than 1%)** - the disinfectants used to clean the root canal system can, very rarely, extrude through the end of the root. If this occurs, it may cause post-operative pain or may require immediate referral to hospital. The affected area can swell/bruise immediately after the procedure.
- **Numbness on the chin/lip/tongue (less than 1%)** - again a very rare complication (less than 1%), where root canal treatment can cause numbness, if the root is close to the inferior-dental nerve. This is generally temporary (resolving within 9 months) however this may result in immediate extraction of the tooth.

SUCCESS RATES AND HEALING

While root canal treatment has a high success rate (**between 80% and 90%**), no medical procedure can be 100% guaranteed. Success depends on how your body heals and the specific condition of your tooth.



WHY DO SOME TREATMENTS FAIL?

The most common reason a root canal might not work is **persistent bacteria**. Bacteria are microscopic and can sometimes survive in tiny, hard-to-reach areas of the root.

Because these germs are invisible to the naked eye, we cannot be certain they are all gone during the procedure. Instead, we monitor your progress by:

- Checking the inside of the tooth during your appointment
- Seeing if your pain or swelling goes away between visits
- Taking follow-up X-rays to look for signs of bone healing

PROTECTING YOUR TOOTH

A tooth that has had a root canal treatment is more brittle and prone to fracturing. To give the tooth the best chance of lasting many years, **you will likely need a crown** (a cap) placed by your general dentist after the treatment is finished. This protects the tooth from cracking under the pressure of chewing.

WHAT HAPPENS IF THE TREATMENT FAILS?

If the root canal does not resolve the infection, we generally have three options to consider:

- **Repeat Treatment (Re-treatment):** The old filling material is removed, the canals are cleaned again more deeply, and the tooth is resealed. This is often done by a specialist (an Endodontist).
- **Endodontic Surgery:** A small procedure to reach the very tip of the root through the gum to remove the infection directly
 - **Extraction:** If the tooth cannot be saved, it may need to be removed

IMPORTANT FINANCIAL INFORMATION

Please be aware that if the treatment fails, the costs for these secondary options (re-treatment, surgery, or extraction) are **not covered or subsidised** by this practice. Because failure is a known risk of the procedure, any further treatment will involve its own separate fees.

ADDITIONAL POINTS TO NOTE

- **You will be provided with a filling to seal the root-treated tooth while you await the definitive restoration. If you request a cosmetic filling, additional private fees may apply.**
- The definitive restoration of the referred tooth (posterior teeth are likely to require covering of their cusps with an onlay or crown) is usually provided by the patient's general dental practitioner (GDP), who will manage the provision of any definitive post-endodontic restoration.
- Patients should liaise with their general dental practices to arrange any further appropriate treatment soon as it is feasible to do so.
- Please be aware, if your treatment is referred from your dentist via the NHS level 2 service, you will not be charged by our practice for your treatment.

