



Root Canal Treatment

Understanding Endodontic Therapy and Saving Natural Teeth

What Is Root Canal Treatment?

Root canal treatment, also known as **endodontic treatment**, is a procedure used to save a tooth when the soft tissue inside the tooth—called the **dental pulp**—becomes inflamed or infected.

Contrary to popular belief, modern root canal treatment is designed to **relieve pain**, not cause it. Advances in dental techniques and local anesthesia have made the procedure similar in comfort to receiving a dental filling for many patients.

Whenever possible, saving a natural tooth is generally the preferred option.

What Is the Dental Pulp?

Inside every tooth is a small chamber containing:

- Blood vessels
- Nerves
- Connective tissue

Together, these tissues form the **dental pulp**.

The pulp helps a tooth develop during childhood. Once the tooth is fully developed, it can continue functioning normally even after the pulp has been removed because it receives nourishment from surrounding tissues.

Why Is Root Canal Treatment Needed?

The pulp may become inflamed or infected because of:

- Deep tooth decay
- A cracked tooth
- Repeated dental procedures on the same tooth

- Dental trauma
- Large fractures

Without treatment, infection may spread beyond the tooth and affect the surrounding bone.

Common Symptoms

Some infected teeth cause obvious symptoms, while others do not.

Possible signs include:

- Severe toothache
- Pain when chewing
- Sensitivity to hot or cold that lingers
- Swelling of the gums
- A pimple-like bump on the gums
- Tooth discoloration
- Facial swelling in severe cases

Only a dental examination can determine whether root canal treatment is necessary.

How Is the Need for a Root Canal Diagnosed?

Your dentist may perform:

- A clinical examination
- Sensitivity tests
- Percussion (tapping) tests
- Dental X-rays
- Additional imaging when appropriate

These evaluations help determine whether the pulp is healthy, inflamed, or infected.

What Happens During Root Canal Treatment?

Although every case is different, treatment usually includes the following steps.

Step 1: Local Anesthesia

The tooth is thoroughly numbed using local anesthesia.

Most patients remain comfortable throughout the procedure.

Step 2: Isolation

A protective rubber sheet, called a **rubber dam**, is often placed around the tooth to keep it clean and dry during treatment.

Step 3: Cleaning the Root Canals

The dentist creates a small opening in the tooth and carefully removes the infected or damaged pulp.

The root canals are cleaned, disinfected, and shaped using specialized instruments.

Step 4: Filling the Canals

The cleaned canals are filled with a biocompatible material called **gutta-percha** and sealed to help prevent future infection.

Step 5: Restoring the Tooth

After root canal treatment, the tooth usually requires a permanent restoration.

Depending on the amount of remaining tooth structure, this may involve:

- A filling
- An onlay

- A dental crown

Your dentist will recommend the most appropriate restoration.

Does Root Canal Treatment Hurt?

Modern root canal treatment is generally **not more painful than receiving a filling**.

Most discomfort people associate with root canals is actually caused by the infection itself—not the procedure.

Some mild tenderness after treatment is normal and usually improves within a few days.

What Happens If You Do Not Treat an Infected Tooth?

Without treatment, the infection may:

- Continue to spread
- Cause increasing pain
- Damage surrounding bone
- Form a dental abscess
- Eventually require tooth extraction

Prompt treatment helps preserve the natural tooth whenever possible.

How Successful Is Root Canal Treatment?

Root canal treatment has a **high long-term success rate** when performed appropriately and followed by a well-sealed final restoration.

Many treated teeth function normally for many years—and often for a lifetime—with proper care.

Caring for a Tooth After Treatment

After treatment:

- Brush twice daily with fluoride toothpaste.
- Clean between your teeth every day.
- Avoid chewing very hard foods until the tooth has been permanently restored.
- Attend regular dental checkups.

A tooth that has received root canal treatment still requires good oral hygiene.

Common Myths

"Root canals are extremely painful."

False.

Modern root canal treatment is intended to relieve pain, and most patients tolerate the procedure well.

"It's better to remove the tooth."

Not always.

Whenever possible, preserving a natural tooth is generally preferred because it helps maintain normal chewing function and jawbone health.

"A tooth without a nerve is dead."

Misleading.

After treatment, the tooth no longer contains living pulp tissue, but it remains functional and is supported by the surrounding bone and periodontal ligament.

Key Takeaways

- ✓ Root canal treatment removes infected or inflamed pulp while preserving the natural tooth.
 - ✓ Modern treatment is typically comfortable with local anesthesia.
 - ✓ Root canal therapy often prevents the need for tooth extraction.
 - ✓ A crown or other restoration is frequently needed after treatment.
 - ✓ Treated teeth can function successfully for many years with proper care.
 - ✓ Early treatment improves the chances of saving the tooth.
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References

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