

Process of Root Canal

What is the Root Canal?

A root canal is a treatment to repair and save a badly damaged or infected tooth instead of removing it. The term "root canal" comes from the cleaning of the canals inside a tooth's root. Decades ago, root canal treatments often were painful. With dental advances and local anesthetics, most people have little if any pain with a root canal. It's probably more painful living with a decayed tooth. Root canal alternatives include extracting the damaged tooth and replacing it with a dental implant, bridge, or removable partial denture.

Teeth have a soft core called the dental pulp. The pulp extends from the crown — the tooth's visible part — to the tip of the root in the jawbone. The pulp contains nerves, blood vessels, and connective tissue. When a tooth is cracked or has a deep cavity, bacteria can enter the pulp. Left untreated, bacteria and decaying material can cause a severe infection or a tooth abscess, leading to pulp death, bone loss, and loss of the tooth itself. Signs and symptoms may include swelling around your face and neck, a hole in your tooth, toothache or tooth pain, gum swelling, and temperature sensitivity.

An endodontist or a general dentist usually does a root canal. The root canal usually takes *one or two visits*, but once in a while, additional visits are required because some teeth prove challenging to treat.

6 Steps of Root Canal Process

Step 1: First, you have dental X-rays to check the extent of the damage. You also receive a local anesthetic to control pain, which may be more severe if the tooth is abscessed.

Step 2: Then a rubber-like sheet called a dental dam is put in your mouth to keep the tooth clean, protected, and free of saliva. Decay is removed, and an opening is made through the tooth's crown to gain access to the pulp chamber. Using small dental instruments, the infected or diseased pulp is removed.

Step 3: After the diseased pulp is removed, the pulp chamber and root canals are flushed and cleaned. The root canals may be reshaped and enlarged to allow better access for filling later. Before permanently filling the root canals, they should be clean of all infections and dried. Medication is sometimes put into the pulp chamber and root canal to clear any infection. The tooth may be left open to drain for several days. If the disease has spread beyond the tooth, you may need a prescription for antibiotics. If the root canal requires multiple visits, a temporary filling



is placed in the crown to protect the tooth and remove debris and saliva. Avoid biting or chewing on the tooth until it's been treated and restored.

Step 4: After cleaning and drying, it's time to fill the tooth's interior — the empty pulp chamber and root canals. You may not need an additional anesthetic for this step. If you had a temporary filling placed, that would be removed to allow access to the inside of the tooth. A sealer paste and rubber compound are used to fill the tooth, followed by a dental filling to ensure the root canals are protected from saliva.

Step 5: The final stage of the root canal is restoring your tooth. Because the tooth typically has a large filling or is weakened from extensive decay, it must be protected from future damage and returned to normal function. This is usually done by placing a crown — a realistic-looking artificial tooth. A crown is made of gold, porcelain, or porcelain fused to metal. Crowns made of porcelain or porcelain fused to metal can be tinted to match the color of your other teeth. Sometimes, a metal post must first be inserted in the tooth for structural support and keep the crown in place. Ask your dentist or endodontist about other restoration options.

Step 6: After your root canal, your restored tooth with the new crown should work typically and look cosmetically pleasing. If you follow good dental and oral hygiene, your restored tooth could last a lifetime. The first few days after your root canal, the tooth may be sensitive.

Over-the-counter pain medications can help. If pain or pressure lasts more than a few days, be sure to talk to your dentist or endodontist.

What causes Root Canal?

Common causes of damage to the pulp include:

- Deep decay due to an untreated cavity, multiple dental procedures on the same tooth, a
 chip or crack in the tooth, an injury to the tooth (you might injure a tooth if you get hit in
 the mouth; the pulp can still be damaged even if the injury doesn't crack the tooth).
- While you can smoke after a root canal, smoking is not recommended as it increases the
 risk of needing another procedure. Smokers are nearly twice as likely to need root canals
 than non-smokers, and that number increases with more years of smoking.
- A prevalent cause is a Failure to Brush or Floss. Regularly it causes serious diseases most of the time.
- Long-Term Gum Disease can damage the pulp badly, and you have to go for a root canal.

What can you do after a root canal?

Most root canal procedures are done using local anesthesia, meaning only the areas operated on will be numb during the course. This means you are awake and aware during the process and can drive and operate machinery as you usually would immediately after the procedure is over.



- After a root canal procedure, you can eat and normally drink, including alcohol, once the numbness wears off.
- After a root canal, make sure to follow all of your endodontist's instructions, which most
 often include avoiding hard or incredibly chewy foods, brushing twice a day, and being
 very cautious around the area where the root canal procedure was completed.
- After a root canal, try to eat soft foods that require minimal chewing, like applesauce, yogurt, eggs, and fish. Avoid hard or hot foods that might hurt your teeth. Some dentists suggest not eat for a few hours until the numbness in your mouth wears off, so you don't bite your cheek or tongue.

Root Canal Symptoms:

1. Pain

Pain is the main sign that pushes people to seek dental care when faced with root canal infection. A root canal infection brings severe pain in its wake. The pain intensifies when you bite down or place pressure on the affected tooth. Additionally, you may experience tooth sensitivity when you eat hot or cold food and drinks. The pain can also originate from inflammation of the gums. The swelling causes the gum to turn red and tender. In most situations, swelling and discomfort occur in the area around the affected tooth.

2. Tooth darkening

When the inner layer of the tooth is infected, the tooth may appear brown or yellow. When the infection reaches the pulp tissues, they change to dark brown, altering the tooth color. The dying or necrotic pulp material will be extracted during the root canal procedure, and the space will be filled with gutta-percha. The tooth will also get a dental crown to improve its appearance.

3. Dental abscess

A dental abscess occurs when the bacteria and dying pulp material create deep pockets full of pus around the tooth root. This causes severe unease and bad breathe and is visible via an enlarged or persistent red bump or pimple on the gum. A foul-smelling liquid may also start to seep out of the abscess.

A periodontist will drain the painful abscess during the root canal procedure and clean out the bacteria to alleviate the pain.

4. Chronic bad breath

Patients suffering from root canal infection usually have chronic bad breath. A condition is probably present if the bad breath is persistent despite brushing, flossing, and using dental washes.



The bacteria responsible for a root canal infection give off an odor. This causes bad breath and a bitter taste in the mouth. The development of an abscess can further worsen the situation.

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