

What is a Root Canal?

Root canal therapy allows for the preservation of natural teeth. A root canal is needed when its dental pulp has been injured, infected or has become inflamed. Nothing is as good as a natural tooth. This is why we utilize each and every test to save a tooth. In order to understand root canal therapy, the anatomy of a tooth is reviewed. Each tooth has two main parts: the crown (is above the gums) and the root (underneath the gums that holds the tooth in its place in the bone). Also, a tooth consists of enamel (hard white outer shell), dentin (hard calcified tissue that protects the pulp), and the dental pulp. The dental pulp is found in the center of the tooth and comprised of living soft tissues (nerve, blood vessels, and lymphatics). The dental pulp is also called the root canal system and is located in both the crown and root of the tooth.



Root canal therapy involves locating the entire root canal system, cleaning, shaping, and sealing it, to prevent recontamination. The reason we take such care and pride in this procedure is because of the tissues (nerve and blood tissues of the tooth) that are being treated. In most instances the patient is faced with root canal therapy or extraction. In other words, root canal therapy is the last chance/hope for a tooth. Root canal therapy is the surgery and treatment of the “brain” nerve and “heart” blood supply of the tooth. The steps include:

1. Numbing of the tooth – this includes pre-appointment medications or nitrous oxide (laughing gas) as needed. The most frequent question asked is, “Will it hurt?” We take great pride in trying to make the procedure as comfortable as possible, and find a large number of our patients asleep during part of the procedure.
2. Isolation of the tooth with a dental dam or “surgical drape”. The dam is the standard of care and always used. It helps the patient open wide; holds the tongue and cheeks aside; keeps our medicines and infectious wastes away from your mouth, stomach, and lungs; prevents contamination of the tooth from your saliva.
3. An opening (hole) from the top of your tooth is made trying to keep it small and protect crowns and bridges. You always need a new restoration (filling) after your appointment, and sometimes you will need a new crown and/or bridge.
4. The pulp tissue is removed.
5. The root canal system is cleaned, enlarged and shaped so it can be sealed properly, with a material called gutta-percha.
6. In order to seal this space correctly, it must be dried. In about less than 5% of cases, the canal cannot be dried in one appointment and a medicine will be placed for a period of one – two weeks.
7. A temporary filling, either chosen by your dentist or endodontist, will be placed in the opening created.
8. Within a few weeks your regular dentist will replace your temporary filling with a new permanent one.

After root canal therapy is my tooth dead? No, because the surround structures (PDL, bone, and gum tissue) are alive. Below is a tooth with root canal therapy completed.

