

## **Root Canal Treatment**

*Following up on your dentist's recommendations*

### **What is root canal treatment?**

Root canal treatment usually involves the removal of the tooth's pulp, a small thread-like tissue that was important for tooth development. The pulp is the soft tissue that contains the blood vessels, nerves, and connective tissue of a tooth. It lies in a canal that runs through the center of the dentin – the hard tissue on the inside of the tooth that supports the outer layer of tooth enamel. The crown (the portion of the tooth visible above the gums) contains the pulp chamber. The pulp extends from this chamber down through the root canal to the tip of the root that lies in the bone of the jaws. Teeth have only one pulp chamber but may have more than one root and several root canals.

### **Why might the dental pulp need to be removed?**

If the pulp is diseased or injured and unable to repair itself, it loses its vitality. The most common causes of pulp death are a deep cavity, a crack, or traumatic injury to the tooth, all of which can allow bacteria and their products to leak into the pulp. If the injured or diseased pulp is not removed the tissues surrounding the root of the tooth can become infected and an abscess can form, resulting in pain and swelling. Even if there is no pain, certain substances released by bacteria can damage the cone that anchors the tooth in the jaw. Without treatment, the tooth may have to be removed.

### **What does treatment involve?**

Treatment involves one or more visits. There are several steps in the process of endodontic treatment that your general dentist or endodontist (a dentist who specializes in root canal treatment) will perform. At various stages, your follow-up will be needed to help ensure a successful outcome.

## What are the steps in the process of saving the tooth?

- First, local anesthesia is usually given so that you will be more comfortable during treatment. Then, an opening is made through the crown of the tooth into the pulp chamber.
- The pulp or its remnants are then removed carefully from both the pulp chamber and root canal(s). The root canal(s) is cleaned and shaped to a form that can be filled.
- Medication may be put in the pulp chamber and root canal(s) to help eliminate bacteria.
- A temporary filling will be placed in the crown opening to prevent saliva from getting into the chamber and root canals. You might also be given antibiotics if infection is present and has spread beyond the end of the root(s). *If your dentist has prescribed medication, use it only as directed. If you have any difficulties with the medication, call your dentist. It is also important to follow your dentist's directions regarding the scheduling of your next dental appointment.*
- During the next stage of treatment, the temporary filling is removed. The root canal(s) are filled with a biocompatible material, usually gutta-percha, and then sealed.
- In the final step, a crown made of porcelain or metal alloy is usually placed over the tooth. The crown covers a tooth to restore it to its normal shape and size. Its purpose is to strengthen the tooth and improve its appearance. If an endodontist performs the root canal treatment, he or she will usually recommend that you return to your general dentist for the crown. *Be sure to follow the recommendation from your general dentist or endodontist and schedule this final step as soon as possible.*

## How long will the restored tooth last?

As long as the root(s) of a treated tooth is nourished by the tissues around it, your tooth can remain healthy. However, the tooth could still become decayed, so good oral hygiene at home and regular dental exams are necessary to help prevent both tooth decay and periodontal (gum) disease.

You probably are aware that if one of your teeth becomes injured or diseased, it can often be saved through a specialized dental procedure known as root canal (endodontic) treatment. What you might not realize, however is the very important role that you play in helping to ensure that this process is completed successfully. To help you understand the steps involved in endodontic treatment – and the importance of follow-up on your part at various stages – we have answered some of the most frequently asked questions about endodontic treatment.