

Mississauga Dental Specialists

Braces Invisalign Teeth Gums & Implants

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Introduction to Endodontics

Endodontics is a specialized branch of dentistry that deals with the complex structures found inside the teeth. The Greek word “Endodontics” literally means “inside the tooth” and relates to the tooth pulp, tissues, nerves, and arterioles. Endodontists receive additional dental training after completing dental school to enable them to perform both complex and simple procedures, including root canal therapy.

Historically, a tooth with a diseased nerve would be removed immediately, but endodontists are now able to save the natural tooth in most cases. Generally, removing the inner tooth structures, then sealing the resulting gap with a permanent filling, restores health and functionality to damaged teeth.

Signs and symptoms of endodontic problems:

- Teeth that are sensitive to hot and cold foods
- Tenderness when chewing and biting
- Tooth discoloration

Reasons for endodontic treatment

Endodontic treatment (or root canal therapy) is performed to save the natural tooth. In spite of the many advanced restorations available, most dentists agree that there is no substitute for healthy, natural teeth.

Inner tooth damage can occur for a variety of reasons:

Bacterial infections – Oral bacteria is the most common cause of endodontic problems. Bacteria invade the tooth pulp through tiny fissures in the teeth caused by tooth decay or injury. The resulting inflammation and bacterial infection jeopardize the affected tooth and may cause an abscess to form.

Fractures and chips – When a large part of the surface or crown of the tooth has become completely detached, root canal therapy may be required. The removal of the crown portion leaves the pulp exposed, which can be debilitating painful and problematic.

Injuries – Injuries to the teeth can be caused by a direct or indirect blow to the mouth area. Some injuries cause a tooth to become luxated or displaced from its socket. Root canal therapy is often needed after the endodontist has successfully stabilized the injured tooth.

Removals – If a tooth has been knocked clean out of the socket, it is important to remove debris and place it back into the socket as quickly as possible. If this is impossible, place the tooth in special dental solution (available at pharmacies) or in milk. These steps will keep the cells on root surface moist and alive while emergency dental treatment is sought. The tooth will be affixed in its socket using a special splint, and the endodontist will then perform root canal therapy to save the tooth.

What does an endodontic procedure involve?

Root canal therapy usually takes between one and three visits to complete. Dental radiographs or X-rays of the tooth involved will be taken and examined before the treatment begins and during the procedure.

Initially, a local anesthetic will be administered, and a dental dam (protective sheet) will be placed to ensure that the surgical area remains free of saliva during the treatment. An opening will be created in the surface of the tooth, and the pulp will be completely removed using small handheld instruments. The space will then be shaped, cleaned, and filled with gutta-percha. Gutta-percha is a biocompatible material that is somewhat similar to rubber. Gutta-percha is used in combination with a cement to ensure that the root canals are completely sealed off. Usually, a temporary filling will be placed to restore functionality to the tooth prior to the permanent restoration procedure. During the final visit, a permanent restoration or crown will be placed.

If you have questions or concerns about endodontic procedures, please contact our endodontist.