

## Advanced Technologies Improve Root Canal Results, Help Eliminate Pain

(NAPS)—Painful root canal treatment is a thing of the past, thanks to the expertise of today's endodontists—and to the technologies they use.

Endodontists are dentists who specialize in performing root canal treatments, saving natural teeth, and relieving oral and facial pain. Using the latest dental technologies, endodontists have transformed procedures that once were completed with the naked eye and standard dental instruments into modern microsurgery. Endodontists' expertise in performing root canals, their advanced training in administering anesthesia and their use of technologies not generally utilized by general dentists result in a more positive patient experience and make root canal treatment more effective and predictable.

During root canal treatment, an endodontist removes the inflamed or infected pulp inside the tooth, carefully cleans and shapes the inside of the canal (a channel inside the root), and fills and seals the space. After the procedure, the patient returns to his or her general dentist for crown placement or other restorative work.

Technological advances have increased the precision and effectiveness of every step of the root canal procedure, enabling endodontists to save teeth that once would have been pulled—all while making root

canals virtually painless.

"The technology endodontists have at their disposal has dramatically improved the practice of performing root canals—for both endodontists and patients," says Marc Balson, D.D.S., a practicing endodontist and president of the American Association of Endodontists (AAE).

Balson notes that many endodontists use digital imaging instead of traditional X-rays. Digital imaging exposes patients to only a fraction of the radiation they typically get with X-rays. Both patients and endodontists can see the results immediately, without waiting for X-rays to be produced. In addition, digital images can be up to 30 times the size of traditional X-rays, so patients can more clearly understand and follow information about their procedure.

Endodontists also have led the way in the use of advanced technologies to enhance visibility during surgery. For many years, they've used surgical binoculars, which magnify the tooth two times to three and a half times, as well as operating headlamps and fiber-optic illumination to increase surgical precision.

The latest advance, the application of the operating microscope, allows endodontists to magnify the surgical area up to 32 times. Just

as important, the improved lighting and optics provided by operating microscopes make it easier for endodontists to distinguish between diseased tissue and healthy teeth. With an operating microscope, structures barely detectable to the naked eye become visible, facilitating the identification and treatment of tiny canal openings and fracture lines.

These magnification technologies, in turn, have led to the miniaturization of endodontic surgical instruments. Today's ultrasonic handheld instruments are one-quarter the size of traditional dental equipment, enabling smaller, better-contoured incisions and quicker, more aesthetic healing after root canal treatment. Tiny surgical mirrors allow endodontists to see each root channel with more clarity. And microsurgical irrigators provide precise directional control of air and water, allowing teeth to be completely rinsed, dried and inspected before filling material is placed in the tooth.

The techniques endodontists use today not only make root canal treatment less painful, they also result in teeth that can last a lifetime. If you need root canal treatment, ask your dentist for a referral to an endodontist or visit the AAE Web site at [www.rootcanalspecialists.org](http://www.rootcanalspecialists.org) to locate an endodontist in your area.