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Painful root canals thing of past, dentist says

With modern medicine and procedures, sensitive oral surgery is safer and more painless than ever.

By Nina Rao
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This week's expert: Dr. Donald Raphael is a dentist specializing in endodontics (root-canal treatment). He owns and operates his own practice in Springfield.

Q. What types of situations lead to the need for a root canal? Is there any way to avoid them?

A. Deep decay or trauma to a tooth causes the pulp, which is the soft inner contents of the tooth, to become very inflamed or infected.

When the pulp is healthy, it has blood supply, veins and nerves. When it's infected, the body's ability to heal it is extremely limited. At that point, either root canal or tooth extraction becomes necessary.

The best way to avoid, or at least minimize, the need for root canals is to have good oral health and get regular checkups with your family dentist.

Q. What kinds of misconceptions about root canals do you encounter?

A. The misconceptions about root canals include people thinking:

- You'll lose the tooth anyway. This is not true. The success rate of root canals is usually quoted as 90 percent. For a medical or dental procedure, this is excellent since no medical or dental procedure can be at 100 percent -- no matter how well we do.

- The tooth will darken or turn black. This can actually happen before root-canal treatment due to the necrotic, or dead, tissue that is infected and decomposing inside your tooth, but it shouldn't happen after root canal treatment if proper cleaning is done.

- They hurt a lot. In reality, with modern anesthesia techniques, almost all patients can have a very comfortable experience. Some infected teeth may be difficult to numb, and sedation may be required. In my practice, this happens about 1 percent to 2 percent of the time.

Q. Rather than have a root canal, can a tooth just be pulled instead?

A. The tooth can be pulled instead of having a root canal and that will cure the problem.

It will also, however, leave you with a missing tooth. To restore chewing function and to prevent adjacent teeth from shifting, the extracted tooth must be replaced with an implant or bridge. This requires surgery or dental procedures on adjacent healthy teeth and can be far more costly, more time-consuming and less natural than root-canal treatment and restoration of the tooth.

No matter how effective modern tooth replacements are -- and they can be very effective -- nothing is as good as a natural tooth.

The best way to approach this decision is to talk to your family dentist. He or she can tell you if the tooth can be saved and can also advise you if treatment can be done in his or her office or if a specialist is needed.

Q. How many root canals have you performed during your career?

A. I have done root canals as a specialist in Springfield since 1980 and have probably done more than 50,000 in that time. My practice is limited to endodontics (root canals) and endodontic surgery.

[Sidebar] What happens during a root canal?

- A root canal is a dental procedure to remove dead or dying nerve tissue and bacteria from inside a tooth.
- A dentist will use a needle to place numbing medicine (anesthetic) around the bad tooth.
- The dentist uses a tiny drill to remove the top part of your tooth and expose the pulp. Pulp is made up of nerves, blood vessels and connective tissue. It is found inside the tooth and runs to the jaw bone. Pulp supplies blood to a tooth and allows you to feel sensations such as temperature.
- The infected pulp is removed with special tools called files. The canals (tiny pathways inside the tooth) are cleaned. Medicines may be placed into the area to make sure all the germs are gone and prevent further infection.
- The cleaned tooth area is sealed with a soft, temporary material. Once the tooth is filled, a permanent crown may be placed on top.