

Problem Solvers 45 Potpourri of Dental Tips and Tricks.

Synonyms: Analgesia, apex locator, painless dentistry, optical telescopes, headlights.

There are many small tips and tricks that can make the difference between a wonderful visit at the dentist and a mediocre one. This problem solver will examine some of the more useful techniques available in dentistry today and how it can make your dental experience more rewarding.

There is perhaps no portion of the appointment more important to a patient than the dental anesthetic. Well, there are definitely techniques your dentist can employ to help make your visit "painless."

Anesthesia: When a dentist shakes your lip or gums while administering anesthetic what are they doing?

Within the spinal cord is a gate that can block pain signals as they go up to the brain. The sensation of touch or vibration travels very quickly along thick, myelinated nerve fibers at 75 meters per second. The sensation of pain takes a different route to the brain and travels along unmyelinated C nerve fibers at 37.5 meters per second. So when your dentist wiggles your cheeks, the wiggle beats out the pain message to the brain. The brain is busy processing the vibration and it sends a message to the nerve to shut the pain gate. So if your dentist isn't wiggling your lips or cheek perhaps you can ask them to try it!

One device that is new, that dentists are using to create this vibration is called the DentalVibe and it is a device that has pulsed wave patterns to try and keep the pain gate closed. It is a high tech way to do what your dentist has been doing for years.

Sensory confusion:

In addition to sensory confusion from wiggling, using auditory analgesia--music can also distract and decrease pain stimuli. So the next time you are at your dentist, bring your IPOD.

Optical Analgesia:

When a dentist gives you sunglasses or 3D glasses they are blocking light waves to your brain; which may serve to create more excitement. The use of colored filters can reduce stimulation and create a more calming environment for your dentistry. So ask for a headset, radio or IPOD to take your mind off of your appointment!

Pressure anesthesia:

When people need a shot in the roof of their mouth the discomfort is caused by the lack of space for the anesthetic to occupy. So the pressure of fluid into the tight tissue causes discomfort. When a dentist applies pressure to this area before the injection it can block out the sharp sensation from the needle. Another trick is to use "ice" to fool your brain into not feeling the injection. Soaking a cotton swab in a liquid ice spray and touching it to the area that will receive the injection will create a type of temperature induced anesthetic.

The intense cold is all your brain will feel so it blocks out the sensation of pain. So if you need a palatal injection you can ask your dentist for pressure and ice first!

What is the piece of equipment my dentist uses to tell him where the end of my root is when performing a root canal?

This is an apex locator. This is an electronic device used during root canals to determine the location of the end of a root where the nerve actually enters the root structure. The apex of the root has a specific resistance to electrical current, and this is measured using a pair of electrodes usually hooked into the lip and the other attached to a root canal file.

The apex locator has increased the success of root canals because they allow an extremely accurate and consistent measurement of the length of the canal. The use of a device to measure root canals can help insure all of the nerve tissue has been removed and all canals have been shaped to their endpoint before placing the root canal filling. Since root canals are like putting a cork in the bottle to seal the root from the bottom and top, the accuracy of these devices has greatly improved the success of root canal procedures.

Magnification and Illumination!

Probably one of the best ways to tell if your dentist is up to date is whether or not they use some type of magnification glasses and an extra bright light while doing their work.

Using optical telescopes such as Designs for Vision or Orascoptic loupes can magnify your teeth from 2X magnification to 5 times magnification or greater! In my practice I have a 3.5 and a 5X set of loupes to see everything from extra root canals to how nice the finish is on the margin of a veneer. The additional use of a headlight or light attached to the glasses can give the dentist a much better ability to see the quality of their work.

The dentist can see under magnification if a crown or veneer fits properly before

cementation. As well, the added visual help can show the dentist if they got all the decay out of a tooth or if the implant abutment is down on the implant properly.

There is no single technology, in my opinion that is more important for a dentist to own. The ability to light up the field of view is as important in dentistry as it is in medicine. Dentists are working on teeth in areas that are tenths of millimeters. The ability to magnify and illuminate your tooth will translate into better patient care.

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