

THE STAR WARS OF DENTISTRY

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Wouldn't it be wonderful if our children's generation never had to experience "The Drill?" Dental scientists have been working for years through the National Institute for Health in eradicating tooth decay. There may well be a vaccine that can be given that will prevent dental caries (tooth decay) and periodontal (gum) disease. For the present we dentists still have to remove tooth decay to prevent the spread of the decay which eventually would cause abscesses and toothaches. We now have a recent innovation which about 500 dentists in the United States are already using to reduce the drilling, and in some cases, preventing the necessity of the drill.

The "light saber" of dentistry is the newest weapon in the fight against tooth decay. The dental laser is the latest in modern innovations for the 21st Century. The Erbium Laser has proven safe and effective for many surgical procedures, the removal of tooth decay and cavity preparation. Recently receiving FDA approval (1997) for use in adults and children, the Erbium Laser offers an alternative to the high-speed drill, eliminating fear and patient discomfort.

The laser is revolutionizing dental care—just as it has in so many other areas of our lives. With the Erbium dental laser, your dentist can provide you and your family with a new method of dental care, which can often be performed, in many cases, without injection of local anesthesia.

How does it work? The Erbium Laser searches for water. Since there is water in enamel, dentin, and tooth decay (cariou dentin), the laser searches for these molecules. The laser then explodes (ablates) the molecules of enamel, dentin, and tooth decay in the path of the invisible laser beam. This micro-explosion is not seen nor felt nor heard by the patient.

Will it hurt? Most patients find laser procedures remarkably comfortable. So comfortable in fact that in many cases, no numbing is required. People who have experienced laser treatment report feeling nothing more than the touch of the handpiece and an occasional slight sensation of warmth.

Does the laser save time in preparing a cavity? No! However, the additional time that the laser takes to remove the affected tooth material is a trade-off for the typical wait for the tooth to become numb. Therefore, the procedure per tooth takes about the same amount of time. Since, the patient does not have the typical numb feeling, more than one tooth in different areas of the mouth may be treated at a single visit. This saves the patient and dentist time in needing fewer appointments.

What kind of after-effects can I expect? The dental laser often eliminates the unpleasant after-effects associated with many dental procedures—soreness, bleeding, inflammation, stitches, and numbness. It also creates no known after-effects of its own.

Can the Erbium Laser be used for soft tissue surgery such as children who are tongue-tied or need certain types of gum surgery? Yes, this laser can perform soft tissue as well as hard tissue (tooth material) surgery.

Dr. Fred Margolis is a pediatric dentist in Buffalo Grove who has enjoyed the comments of his patients and patient's parents since using the laser. One of his 4 year old patients, Isabella, had laser surgery to correct her tongue-tie. Her mother decided on the laser versus conventional surgery when Dr. Margolis explained that with the laser there is no use of scalpel and typically no bleeding. When asked by her mother immediately after surgery how she felt, Isabella replied; "Great."

A teenage patient, after finishing 3 cavity preparations using the laser, was asked how he rated the comfort of the laser (with 10 being the most pain and 0 being no pain) replied; "I'd give it a 0-1."

Lisa B., a ten year old, after completing her cavity preparation stated; "It didn't hurt at all. I felt a little tingling. The laser's a great idea!"

Maggie B., age 7, after completing three cavity preparations in one sitting was asked; "How was the laser?" She replied; "It was cool. I didn't feel a thing."

Can the laser be used for all dental restorations? Unfortunately, conventional drilling must still be used for the removal of old metal restorations. Also, the laser cannot be used, as of now at least, for the preparation of a tooth for a crown, bridge, nor veneer.

DENTAL LASER	VS.	DENTAL HANDPIECE (DRILL)
1) Less Vibration—tingling sensation		1) Vibration noticeable
2) No whining noise—light popping sound		2) Whining noise
3) No microcracks in the tooth enamel		3) Microcracks in the enamel which could weaken the tooth
4) No anesthetic needed in > 93% of patients		4) Anesthetic usually required
5) Bactericidal effect		5) No bactericidal effect
6) Cannot remove old metal fillings		6) Can remove any old filling
7) Slower preparation in enamel		7) Faster preparation in enamel
8) Don't have to wait for anesthetic— Therefore no numb feeling		8) Anesthetic time needed in most in most instances.
9) Higher initial cost		9) Drills less expensive

For additional information on laser dentistry, please contact the Academy of Laser Dentistry's web site at www.laserdentistry.com. The American Dental Society's web site is www.ada.org. Dr. Margolis' web site is www.pediatricdentalassociates.com. He can be contacted at (847) 537-7695.