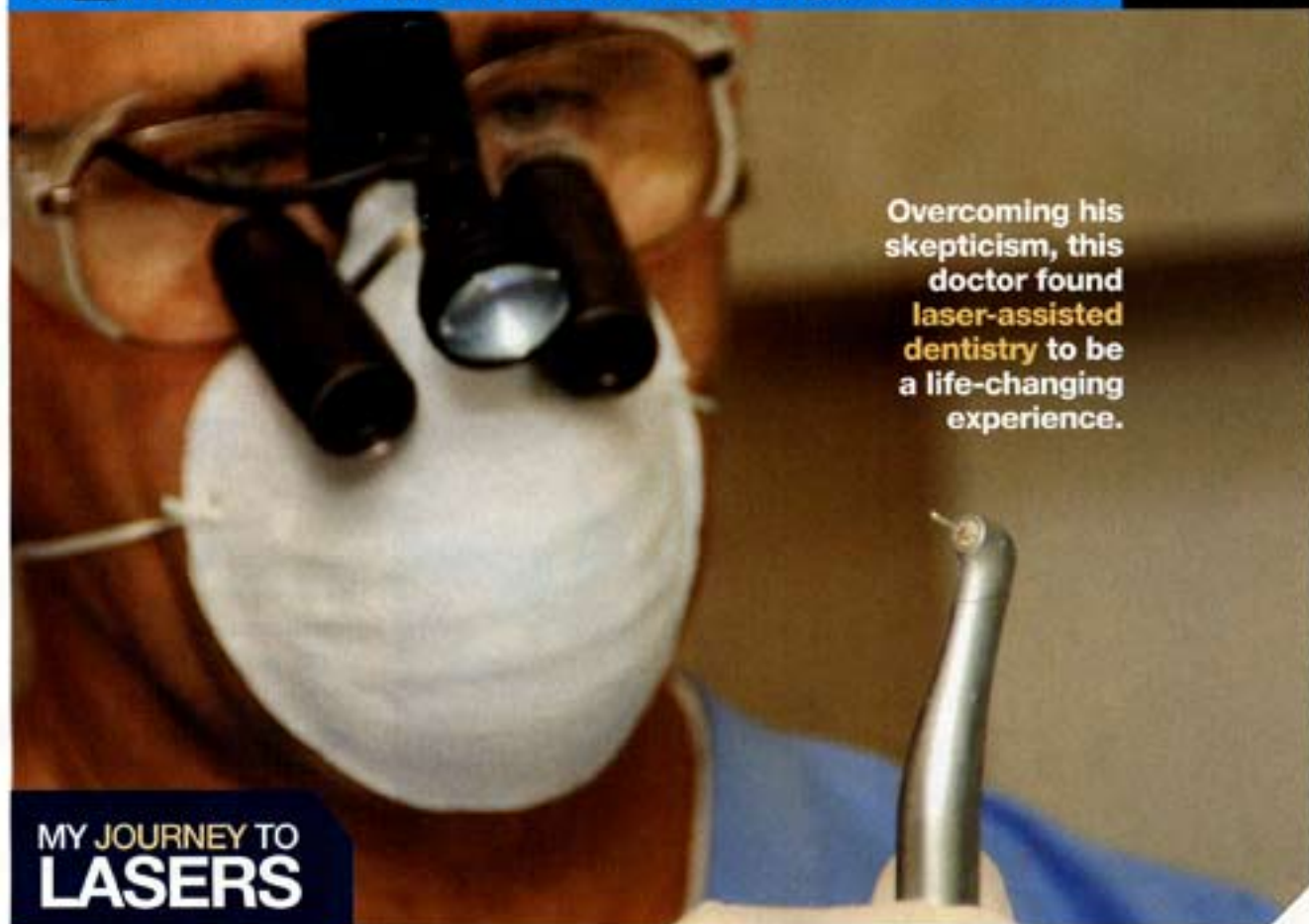


operator

TECHNIQUES AND TECHNOLOGY FOR CLINICAL SUCCESS



Overcoming his skepticism, this doctor found **laser-assisted dentistry** to be a life-changing experience.

MY JOURNEY TO LASERS

A Dental Practice Report series

This four-part series chronicles one doctor's efforts to integrate laser technology into his dental practice.

This month: Author discusses his decision to purchase a laser and his first steps toward integration.

In March: Using your laser in everyday clinical practice.

In April: How lasers allow you to perform more procedures.

In May: What lasers can do for your bottom line.

LASER-ASSISTED DENTISTRY

Why I bought a LASER

BY JONATHAN A. BREGMAN, DDS, FAGD



“I believe that laser-assisted dentistry has created a new standard of care.”

TEAMWORK: To ensure that everyone in the office was on board with lasers, Dr. Bregman held several lunch-and-learn programs.

In the late 1990s and early 2000s, I attended a few lectures and read a couple of articles about dental lasers. At the time, I thought the technology was interesting, but it didn't apply to my general dental practice. Although I consider myself an early adopter, lasers simply did not offer me enough “solid” applications that would warrant my investment.

Then, in December 2004, I attended a lecture on lasers given by Drs. Mark Colonna and Robert Barr. These two dentists have been at the forefront of modern laser-assisted dentistry since its inception. Upon hearing their program, I was stunned. I had no idea what the latest innovations in dental laser technology could allow me to do.

Switches were flipping in my brain. I always wanted to change that procedure and now I can. I can add that to what I offer patients. And so it went. I just knew what laser-assisted dentistry was going to do for my patients, my team, my practice and me.

Like most dentists, I have to put my hands on any new technology before even considering a purchase. Once I tried the laser out, I became a believer and purchased an Er,Cr:YSGG that day. I learned that my initial impressions of lasers were wrong. They can do so much more than I ever expected.

I returned to my office the following Monday very excited about my new purchase. My team knew that I always came back from meetings with new ideas about equipment, procedures, materials, practice management or patient care. They were used to that. What they did not expect to hear was that I had purchased a dental laser.

The benefits

The big issue for me when adopting new technology is how much it improves patient care. Laser-assisted dentistry transforms the dental experience for patients, as well as the doctor and team. I believe that

LASERS 101

Knowing the meaning of a few key words is critical to understand how lasers work and what makes one different from another.

The first word is wavelength.

WAVELENGTH: The word relates the distance or length from a similar point on one 'wave' to the same point on another. Wavelengths are measured in meters (m) down to an extremely small part of a meter, a nanometer (nm). Dental lasers are categorized by their individual wavelengths, which determine the application of each one.

The wavelength of a laser beam is determined by the 'medium' that is charged with energy inside the laser unit itself. The following is an abbreviated list of the lasers that are currently used in dentistry, their medium and

absorbed by the target tissue.

For the diode and Nd:YAG lasers the laser energy itself is directed down a fiber toward the soft tissues (their only use) to cause ablation of those tissues. A certain amount of heat is produced at the affected surface. The Er:YAG laser directs laser energy directly to the target tissues (for use with hard and soft oral tissues), which is simultaneously cooled by water. The Er,Cr:YSGG laser is different than all other lasers in dentistry in that the laser energy activates water molecules that are then directed to the target tissues (for use with hard and soft oral tissues). The affected area is

cooled approximately two to three degrees, which is very important in significantly decreasing any damage to the surrounding tissues when



NAME	MEDIUM	WAVELENGTH
DIODE	MAN-MADE CRYSTAL	800-980NM
ND:YAG	NEODYMIUM: YTTRIUM ALUMINUM GALLIUM	1064NM
ER,Cr:YSGG	ERBIUM CHROMIUM YTTRIUM: SCANDIUM GALLIUM GARNET	2780NM
ER:YAG	ERBIUM: YTTRIUM ALUMINUM GALLIUM	2940NM

their wavelengths:

The second word that is important in laser-assisted dentistry is ablation.

ABLATION: is defined as a "surgical cutting" or "vaporization." When referring to the "cutting action" or "tissue removal" using a laser, the word ablation is commonly used.

Three basic factors make one laser different from another. These factors are:

- Wavelength
- How the laser energy is delivered to the tooth/bone/gum
- How the wavelength produced is

ablation occurs at any given site.

Different wavelengths are absorbed at varying rates and depths by different oral target tissues. Based on the unique absorption characteristics and corresponding depths of penetration of each specific wavelength, precise removal of tissues (hard and soft) is accomplished. With these aforementioned dental lasers, there is a decreased risk of damage to surrounding tissues compared to that caused by the traditional dental equipment.

laser-assisted dentistry has created a new standard of care within the profession.

The first sign that laser technology might be the right fit for my practice was the ability to practice pain-free and needle-free dentistry. Having practiced for 29 years, I knew that most patients either hated the needle or the numbness that followed, or both. Being able to offer needle-free (not using injectable, local anesthesia) dental care for so many commonly performed soft-tissue dental procedures, such as recontouring, frenectomies and biopsies was a dream come true. Drs. Barr and Colonna also showed me many needle-less (greatly reduced need for injectable, local anesthesia) hard-tissue procedures, performed with the dental laser with routine restorative procedures.

Eliminating the placement of retraction cords also was a significant benefit of adopting laser technology. I was a two-cord guy for my entire career. This was the first time I felt that I could give up my retraction cords, get a better clinical result and provide a much more comfortable experience for my patients.

Third, I could now easily perform many procedures that I had previously referred out. Most patients, when informed that they will be referred to another dentist will ask, "Doctor, can't you do this for me?" Sometimes they actually beg you to not refer them. With my laser, I stopped referring out labial frenectomies, lingual frenectomies, biopsies and some crown-lengthening procedures to the delight of my patients. As I learned more about lasers, I could do more. My excitement and passion for my profession jumped 100 fold. In addition to what I could do clinically for my

patients, my excitement was due to four factors: Predictability, efficiency, practice-growth potential and, of course, it was fun.

Greater predictability means less stress. Before adopting laser dentistry, my anxiety and stress would rise when approaching any number of procedures in which I was unsure of what I would be faced with once started. With a laser, I can better

strive. Secondly, I have been able to perform a greater variety of procedures in multiple quadrants, which improves my per appointment production. All of the aforementioned leads to a healthier bottom line.

Dr. Charles Blair, an expert in aiding dental practices to become more financially successful, says that "higher dollar-per-hour and higher dollar-per-appointment production for the dentist" are the key numbers he uses to determine the clinical effectiveness of the doctor and, viewed over time, the financial improvement of a practice. Both of these key indicators improved dramatically for me with the introduction of laser-assisted dentistry.

Besides what I could do hourly and per appointment, the sheer numbers of patients seeking dental care skyrocketed. Many new patients wanted to experience this new type of dental care.

Finally, what about the quality-of-life issue I mentioned? Did I use the word fun? Yes! Our patients often comment that it appears that my assistant and I are having a great time using the laser. I truly feel that I have had an improved quality of life from using my laser daily in my office. That improved quality of life comes in the form of reduced stress through greater predictability of clinical procedure outcomes and more personal time.

Playing catch-up

When I looked at my increased efficiency and hourly and appointment productivity, I had a choice to make. One was to schedule more patient treatment in the time that was freed

up to produce more daily. The other was to use the additional time for personal time—or what I came to call "doctor time." I chose the latter. I blocked out one hour of patient care immediately before or after the lunch hour for me every day—four hours per week. Previous to my establishing doctor time, every day I would come back into my private office after a morning of treating patients to find a growing mountain of practice-related stuff to do. There was an additional growing mountain of personal-related stuff to do. Once the lunch hour was over, I was back to patient care. At the end of the day, the mountains were even bigger. I was always the last to leave the office at the end of the day and the only one to come in or bring work home on weekends to get caught up. Doctor time changed all of that. For the first time, I knew that each and every day, I had the time to get caught up on practice and personal matters.

Learning curves

I chose my laser based on several factors, including the range of uses; the physical characteristics of the laser unit; training that is made available both through lectures, hands-on experience and in-office training; and technical support offered not only with the purchase, but in continuing guidance and support in the months and years to come. (See "Questions to ask," page 44.)

The proper training helped cut down on the learning curve. I also created several in-office lunch-and-learn programs for my clinical and business staff. The entire team was

QUESTIONS TO ASK

- Does this laser provide the technology needed for me to do all that I wish to accomplish with a dental laser or do I need to use/purchase another laser as well?
- Is basic and advanced training available/included in the purchase of the dental laser?
- Can you provide me with clinically based research that supports your claims?
- Can you provide me with names of dentists in my area with whom I can speak who are using your product?
- Can you provide me an opportunity to do a 'hands-on' trial of this dental laser?
- What is the available technical support?
- What about warranty or financing?

control bleeding, re-contouring and removing hard and soft tissues, to name a few areas. Now, I can accomplish procedures easily that were previously seen as extremely difficult to virtually impossible. My days are less stressful and consistently staying on schedule throughout the day is more easily accomplished.

Greater efficiency can be quantified in two ways. First, I have been able to produce more per hour, primarily by reducing the time needed to do many routine procedures while maintaining the same level of clinical excellence to which I always

DISCLOSURE: Dr. Bregman uses a Waterlase MD by Biolase Technologies Inc. He is not an employee of Biolase but has received honoraria for delivering programs for the company, as well as laser organizations. This series is an exploration of his personal experience and has not been influenced in any way by any dental laser manufacturers.

able to rapidly understand what the laser does, its advantages and applications. Applicable insurance codes and guidance on the business end were provided through literature I was given by the manufacturer. We were all up and going in a matter of months.

Getting our patients up on the learning curve about laser-assisted dentistry is an ongoing process. Every patient who comes into our office is shown the film segment on laser technology from CAESY. Immediately before experiencing their first dental laser procedure, a "show, tell, do" approach is taken. Once they clearly know what to expect and a little bit about how the

technology works, they gladly accept the laser-assisted procedures, especially those that are needle-free.

Today

Now two years after the purchase of my dental laser, my expectations have been exceeded clinically, financially and personally. I use the laser on every patient that comes through my office. Financially, even with the four hours of doctor time taken out of my clinical week, my production numbers are up and my overhead is lower. Specifically, my dollars per hour and per appointment production are significantly higher. Finally, my quality of life has improved dramatically. I love coming to the office

and practicing clinical dentistry more now than ever before. Most importantly, I feel that I have truly transformed the dental experience for my community of patients. ■



Dr. Jonathan A. Bregman practices in Durham, N.C. He has been an adjunct clinical professor of the University of North Carolina Dental School at Chapel Hill for 15 years. He has presented both nationally and internationally on laser-assisted dentistry, most recently in Australia and New Zealand besides being a featured speaker at the WCL/Sydney. Dr. Bregman also writes and speaks on both dental and non-dental topics. Contact him at 919-489-6000 or visit his Web site at www.bregmandentistry.com.

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