

## Case Studies on Waterlase™ in Today's Dental Practice

*Investing in Your Patients and Your Practice*



Waterlase MD™  
Case Study



Robert "Bo" Turnage,  
DDS

Friday Harbor,  
Washington

# A Tale of Two Practices

*As a dentist, have you ever wondered what it would be like if you could start all over again and build your dream practice based upon all you have learned over the years? Well, that's exactly what Robert "Bo" Turnage, DDS did... after 23 years in clinical practice. His story offers significance for newly-minted dentists, established practitioners and older dentists verging on retirement.*

After graduating from Loma Linda in 1982, Dr. Turnage purchased a small practice in Palm Springs, where he and his family lived for the next 10 years. With his wife and 3 small children, he decided to forego California's fast-paced lifestyle and relocated to Ellensburg, Washington, a rural community between Seattle and Spokane. Dr. Turnage bought an aging practice and spent the next 13 years building it into the largest dental practice in the area. "We were 'crazy busy,'" recalls Dr. Turnage who, with a 12-person staff, saw from 35 to 50 patients a day. "We had 6 operatories and an in-house lab. But we also had old-fashioned equipment, including banana chairs, traditional radiography, and air-driven handpieces."

Over the years, his rural practice grew to production of \$120,000 per month. "Not bad," said Dr. Turnage, but his high-volume practice generated tremendous overhead, which was hovering at 80% of revenue. "My philosophy was that pumping more patients through the system would lead

to greater financial success. I had to work my tail off to keep the practice on track and profitable." What kept him up at night; however, were dual "nagging thoughts." His kids were nearing the end of high school, and his wife and he thought about relocating to their eventual retirement community, "somewhere we could truly enjoy natural beauty each and every day." At the same time, the pace of work was very stressful, even in a rural setting. "There had to be a better way."

Against the well-wishes of friends, they decided to up and move once again, to Friday Harbor, a community in the San Juan Islands north of Seattle. During repeated visits to Friday Harbor, they would ask locals where they went for dental care. "What we heard consistently was, "can you get back to Seattle?" The Turnages saw this as an opportunity to bring a unique presentation of dentistry to the community of 7,000 year-round residents that grows to 22,000 in summer. Starting from scratch, Dr. Turnage began

	Old Practice	New Practice
Description	“High Volume, High Overhead”	“Fewer Patients, Better Care”
Structure	6 operatories 13 staff	3 operatories 4 staff
No. of Patients per Day	35-50	8-10
No. of Work Days per Week	5	4
Monthly Production	\$120,000	\$81,000
Time to Accomplish	10 years	5 months
Overhead	80%	65%
Typical Monthly Net Income	\$24,000	\$28,000
Outlook	Mature, Stable	Infancy

Table 1 – Turnage

to design a dental practice from the ground up.

They decided on an elegant harbor-view setting with Asian and European antique furniture, dramatic lighting and lots of art. “We wanted patients to feel like they had walked into a high-end spa in Dallas or New York.” Next, they decided to make high technology the focus of their practice as well as the differentiator in the community. “We also wanted patients to feel that they could get the highest level of care without having to travel.” To accomplish this, they started by purchasing a laser. “The Waterlase MD™ has become the cornerstone of our high-tech patient care approach,” noted Dr. Turnage, who has also employed an additional BIOLASE LaserSmile™ diode laser, digital x-ray units and Pano, microscopes and ceiling-mounted flat-panel TV/monitors. “We took a risk, not knowing if and when patient acceptance would be there in a relatively small community. It was more expensive to start from scratch, but I wasn’t handicapped

by outmoded equipment, systems or bad habits built in to an existing practice.”

Indeed, the risk is paying off. With only a small sign outside their building and four “conservative” announcements, the practice is attracting both high-end and working class patients. “We have not only attracted ‘dot-com millionaires’, but also long-time residents who are in many of the service industries. We also kept our fees reasonable to create even more value to our high-tech approach.” They opened their doors in May 2005 and business has exceeded expectations. After 5 months, they are averaging 53 new patients per month. Production is at \$632 per hour and growing steadily. In contrast to the high-volume rural practice, Dr. Turnage sees 8-10 patients per day utilizing a smaller and simpler structure that leverages technology. The lower overhead (now at 65% which includes some equipment financing) has allowed more money to drop to his net income line with only two-thirds the production required by his old

“Utilizing the laser, I can offer better care to fewer patients. It’s a controlled environment that also gives me freedom to enjoy a more relaxed lifestyle. I no longer feel



## A Tale of Two Practices (continued)

Both staff and patients enjoy the benefits of the laser.

“My staff really appreciated that the ‘old dog’ was willing to learn something new. It motivates them to



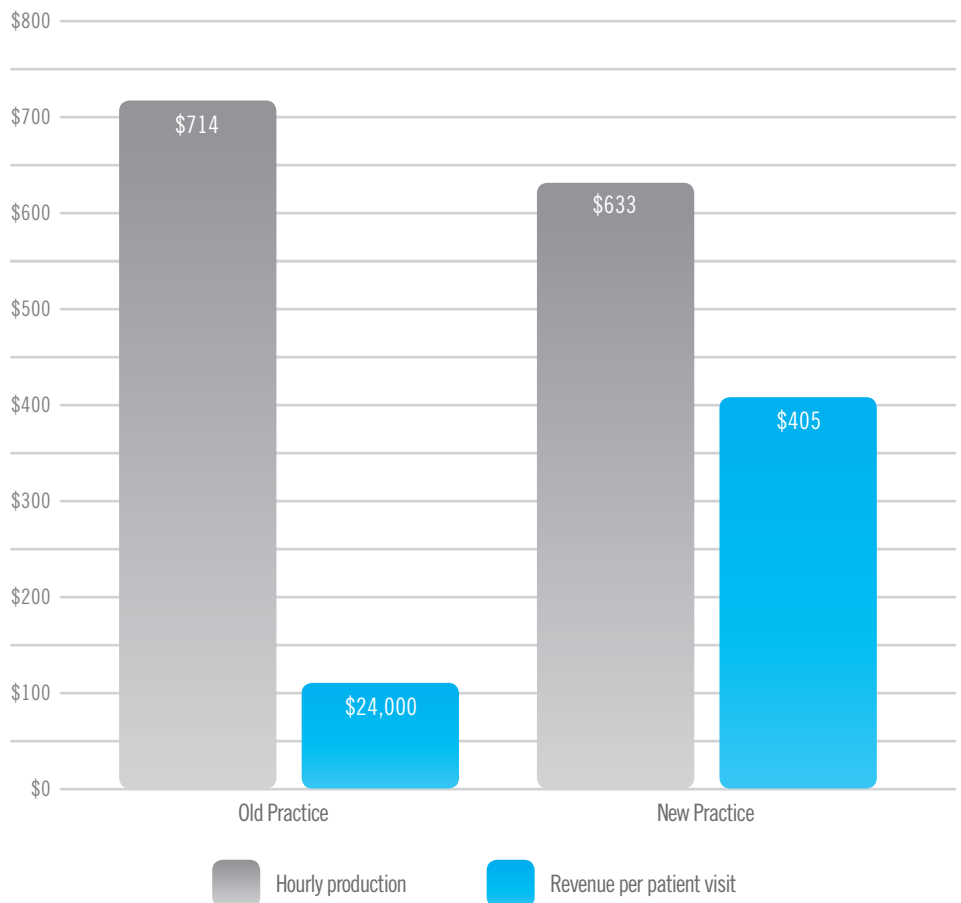
practice (See Table 1, Figures 1 & 2).

The reduction in overhead creates net income that far exceeds the lower volume of patients. “Utilizing the laser, I can offer better care to fewer patients. It’s a controlled environment that also gives me freedom to enjoy a more relaxed lifestyle. I no longer feel like I’m going to have a heart attack.” The Waterlase MD technology has greatly contributed to this being possible. “The ability to practice

dentistry with a laser is hugely different, better and more fulfilling.” From bleeding control, to treatment options, to post-op pain control, to periodontal, endodontic, surgical, and restorative procedures, Dr. Turnage is doing things that previously often required referral to a specialist or simply were much less predictable. “Using the laser means fewer complications afterwards and much less post-op pain.”

Both staff and patients enjoy the

**Figure 1**  
Average Hourly Production and Revenue per Patient Visit  
New Practice vs. Old Practice





For others like me who have been in practice for 20 plus years, the laser gave me a new sense of pride in my profession as well as the ability to

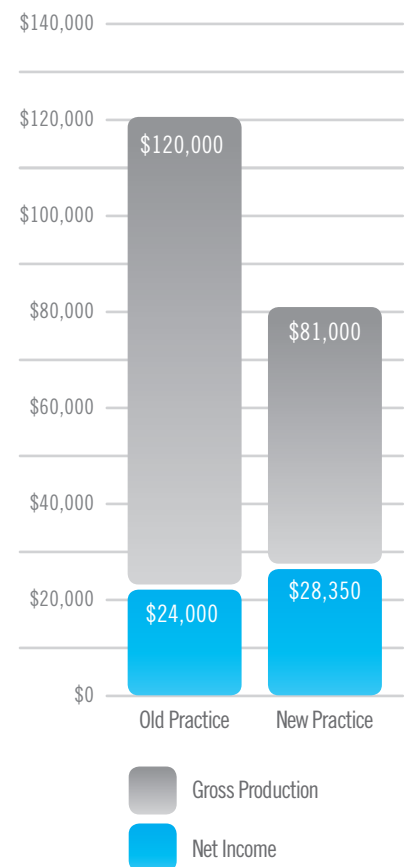
benefits of the laser. "My staff really appreciated that the 'old dog' was willing to learn something new. It motivates them to achieve a higher standard." And patients, who are hearing about this laser around town, quiz the staff before seeing the dentist to get the inside scoop. They ask questions like, "If the laser gets bumped while the doctor is working, will it cut off my tongue?" The reaction from other local dentists has been mixed: "Some embrace the laser and recognize its potential while others seem skeptical that it could be applicable to their style practice." One informal metric has been the increasing frequency of the faxing of patient release forms to other dentists, which is occurring multiple times each day. "Patients are actively seeking this technology!" exclaimed Dr. Turnage, who likens his new practice to switching from driving a Cadillac to being in the seat of a Formula One race car. "Both are automobiles, and the new one took some time to learn, but it's a lot more fun, it can do things I had never thought possible and I now make them part of my everyday practice."

Dr. Turnage says his experience starting over, "where no one knows your name," has helped debunk his previous belief that a successful practice depends heavily on longevity in one community. "I now have time to do the simple but important things," which include developing a personal relationship with each patient, lunch with his wife, a phone call to his son at college, or extended staff meetings to review

issues and opportunities. His advice to other dentists can be applied to new and established practitioners. "For the new dentist, you now have the opportunity to go 'high-tech everything' and you should do so. The improvements in efficiency and effectiveness are incredible. For others like me who have been in practice for 20-plus years, the laser gave me a new sense of pride in my profession as well as the ability to offer better patient care." And he wants to serve as a role model for dentists contemplating retirement: "I am determined that when I retire, my practice will be technologically current for the new dentist."

With a view of the harbor from both his home and his office, Bo Turnage has turned his dream into reality, with a five-month old practice literally "in its infancy." And he's certainly proven to himself that the third time around is the charm! ■

**Figure 2**  
Average Monthly Production vs. Net Income with the Impact of Overhead



## Waterlase MD™ Case Study



Dr. Bruce Cassis

Fayetteville,  
West Virginia

“I believe that laser technology will become ‘the standard of care’ in the next 5-7 years. The laser is much more accurate and can pinpoint tissue much better than a burr.”

# Take this job and Love It!

*By the end of 1999, Dr. Bruce Cassis had spent 19 years building a successful rural dental practice in Fayetteville, West Virginia. “Being of service to people in a positive way” is how Dr. Cassis describes his philosophy. But he was also exhausted enough by the daily routine to admit “this job stinks!” and instruct his staff “don’t ever schedule another kid in my office!”*

Fast forward to 2005...Dr. Cassis has had his Waterlase™ since late 2000 and work life is described differently: “I’ve never been happier or more satisfied as a dentist. My TEAM — they’re not staff — looks forward to work every day and we have no more long faces. And I’m doing the best kids’ dentistry imaginable.” In fact, his office has become a long sought after place of employment in the community.

What happened? “The laser changed everything,” Dr. Cassis stated emphatically. Early in 2000, Dr. Cassis attended a lecture on dental lasers in Charleston led by Dr. Bill Chen. “I got it immediately as I was really interested in soft tissue applications. My cousin Steve (an ophthalmologist) had long been using lasers for eye surgery and asked ‘can’t you use a laser in the mouth?’ Here I am using scalpels, which I didn’t like because it’s painful for the patient and full of complications.” He made his decision that night and was the only one of twelve attendees to invest in a laser. “Like my colleagues, I was initially thinking about ‘cost’ more than ‘ROI!’”

Immediately, however, he began generating more revenue and procedures with the laser. “We introduced it to

patients whether we were going to use it on them or not. And as a practice, we used the laser as a business opportunity rather than just open the door and see what happens.” As shown in Figure 1, net collections have more than tripled when comparing calendar year 2004 to the same year in 1999. And 2005 is shaping up to be a record year with production forecast at \$2 million, putting Cassis Dental Center in the top 1% of practices nationwide.

What might be surprising is that Fayetteville, West Virginia has a population of 2,000 people. The practice draws from 3 counties and has an active patient base exceeding 5,000 people. “We are well known for pampering our patients, who are everyday, hardworking people,” commented Dr. Cassis. His patients range from two years of age to 102. This is in keeping with his practice philosophy of a “lifetime of care” for people’s oral health. The practice has taken the time to understand local demographics and employment trends. Dr. Cassis noted that 75% of residents in his county own their homes; the practice has also successfully connected with employee groups in the area. Creating affordability through patient

financing vendors such as CareCredit (Costa Mesa, CA) has also had a major impact. "We have figured out ways to find money for people who desire our services. This is a huge part of our revenue."

Dr. Cassis has closely documented the types of procedures and frequency with which they are performed. As seen in Table 1, there has been a dramatic shift in the procedure mix since implementing the Waterlase. His experience has led him to work both as an instructor for BIOLASE as well locally as part of West Virginia's Rural Health Education Partnership. In that program, dental students from West Virginia University's Dental School come through for a six-week rotation. Dr. Cassis gives them a half-day training session specifically on the laser. His most recent student was trained in the morning of her first week and doing laser dentistry in the afternoon. "If you understand a half a dozen basic concepts, you can use the laser immediately with a live patient." What impressed Dr. Cassis even more was the response of his student: "It was awesome. I did the same things I do at school with the drill. The patient asked me, 'have you started yet?' after I had completed the procedure."

**Table 1 – Cassis – Change in Procedure Mix & Production 1999 vs.**

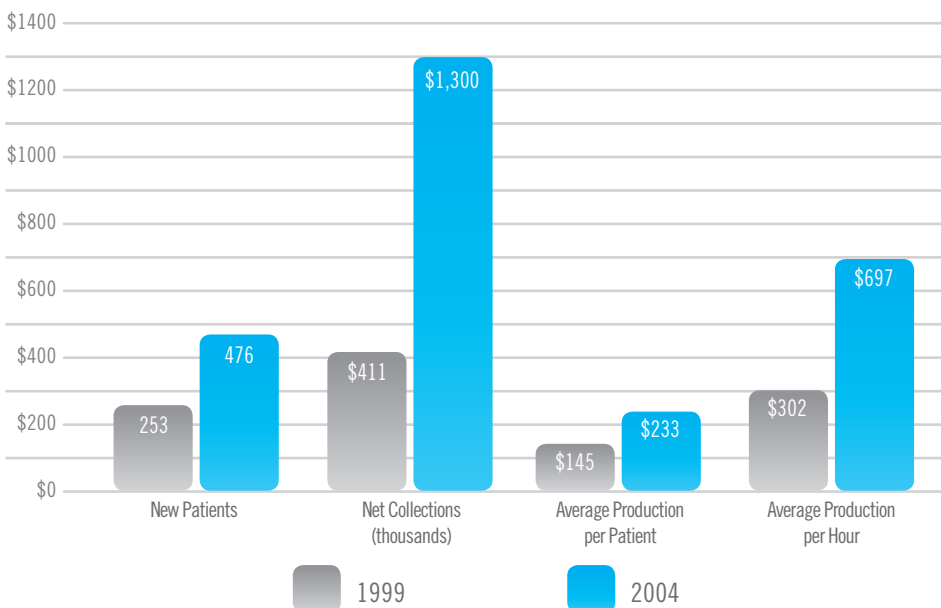
CDT Code	# in 1999	# in 2004	% Change Volume	\$ Change Production
2330 Resin 1, Anterior	54	108	100%	+\$6,710
2331 Resin 2, Anterior	34	72	111%	+\$5,947
2332 Resin 3, Anterior	32	59	84%	+\$7,065
2335 Resin 4+ Surface, Anterior	25	30	20%	\$3,149
2380 Resin 1, Posterior	11	1	-91%	-\$692
2381 Resin 2, Posterior	14	3	-82%	-\$790
2385 Resin 1, Posterior	187	413	120%	+\$44,709
2386 Resin 2, Posterior	160	31	-81%	-\$17,651
2387 Resin 3, Posterior	50	240	380%	+\$36,035
3426 Apecoectomy	2	10	400%	+1,231
4211 Gingivectomy	5	16	220%	+\$2,178
7110 Extraction	120	194	62%	+\$12,224
7210 Surgical Extraction	26	74	184%	+\$10,329
7280 Surgical Access Unerupted	5	2	-60%	-\$654
7286 Biopsy Soft Tissue	1	10	900%	+\$1,673
7340 Vestibuloplasty	2	3	50%	+436
7960 Frenectomy	6	23	283%	+\$5,554
4240 Gingival Flap Procedure	0	3	NA	+\$1,494

This story is part of the message that Dr. Cassis wants to get out to dentists everywhere. "I believe that laser technology will become 'the standard of care' in the next 5-7 years. The laser is much more accurate and can pinpoint tissue much better than a burr. I'd jump all over this if I were an older dentist, as it makes procedure easier to do. Younger

dentists have the opportunity to really change the course of their career." In fact, colleagues who were referring patients to him because the laser could solve the problem are now investing in their own unit. "This is good, because it raises the level of care in our community."

Dr. Cassis is grateful for what the Waterlase has done for his practice and his patients. "On behalf of the eight people who work here – our TEAM - I can say that the laser has changed each of our lifestyles by helping us be more successful at what we do." Looking back at his decision to get into laser dentistry, he offers this conclusion: "I'm a much better dentist than I was six years ago." ■

**Figure 1 Business Performance 1999 (no laser) and 2004 (with laser)**



Waterlase MD™  
Case Study



Linda Kronick, DMD  
Norwich,  
Connecticut

# Dentistry: The Perfect Combination of Surgery and Art

*Linda Kronick, DMD is one of those dentists that you just want to get to know better. With a family practice in Norwich, Connecticut that focuses on high tech dentistry, her passion for the profession is a reflection of how she lives: "I love people and want to make them happy."*

As a young adult, Dr. Kronick saw dentistry as a means of combining two strong areas of interest: surgery and art. Growing up, in the same town where she now practices, Dr. Kronick spent time learning how to paint and also worked in a surgical practice.

She first learned about dental lasers while working in the surgical practice observing CO<sub>2</sub> lasers being used in general and oral surgery. She eventually had the opportunity to take courses and see exactly how the laser could work with both hard and soft tissue. "I was spellbound and knew I had to have this in my practice."

In late 2004 she made the decision to purchase the Waterlase MD™ (BIOLASE, San Clemente, CA) and had it installed to start the New Year. "It's blown my expectations away," noted Dr. Kronick. "There is so much that I'm doing and so much more to learn." As her experience and expertise grew over several months, Dr. Kronick's confidence in the laser was showing up in daily in her expanded use

of the Waterlase MD with her patients. With a focus on restorative dentistry, she is finding the laser much more efficient in doing minimally invasive composite resins and she routinely uses it for troughing, in lieu of packing retraction cord, prior to final impressions for crown and bridge procedures. "Doing additional procedures, at the same visit, in the same or different quadrants are made easy with the Waterlase MD. Patients are grateful to have one visit rather than several to complete their dental treatment. That's a plus for everyone, doctor and patient, in this busy world."

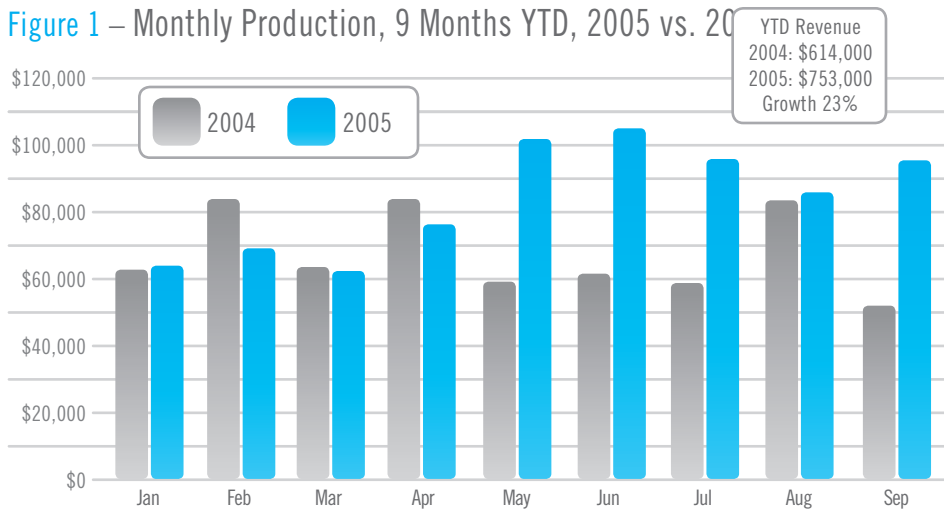
In addition, she is doing periodontal procedures that she used to routinely refer out. "Four perio procedures, that she performs routinely, have generated \$38,000 in additional revenue so far, and I'm just getting started (see Table 1: Periodontal Procedures Performed In-Office)." With the ability to do crown lengthening procedures at the same time as crown preps, "one can impress

**Table 1** – Periodontal Procedures Performed In-Office via YSGG

	DPT Code
Crown Lengthening	4210
Gingivectomy	4211
Mucogingival Surgery	4299
Laser Assisted Scaling	4250



Figure 1 – Monthly Production, 9 Months YTD, 2005 vs. 2004



immediately following the surgery with unparalleled accuracy. My lab could not believe the clinical results.”

Indeed, the data from her practice indicate that the laser has been the main reason for growth this year. As shown in Figure 1, monthly production is up 23%, with several months over \$100,000 in revenue.

Her hourly production has increased over \$200, from \$661 to \$863. While hourly production is up 31%, hours spent on the job are down 6% (see Figure 2). “I’m working smarter per hour,” notes Dr. Kronick, who has worked fewer hours this year. She has used the extra time to learn more about the capabilities of the Er,Cr: YSGG laser.

The response from her patients has been similar in impact. “Patients are thrilled because the laser makes their dentistry quicker, cleaner, and more precise. They go ‘wow’ when I tell them there’s a good chance they’ll have no needle, no pain, and no post-operative numbing or swelling. And they are truly grateful that I’m taking less of their time and don’t have to refer them to a specialist.”

Dr. Kronick has the full support of her staff, many of whom have personally experienced dental work using the laser. “They love raving about it to our patients,” added Dr. Kronick. The practice philosophy

has always been to take time to educate patients and explain what the different technologies do for them. “Our patients see the benefit and are just amazed at how much better the trip to the dentist can be.” The influence of the laser on referrals has also been significant. Year to date, the practice is seeing 33 new patients per month, almost double from the average of 18 new patients for the same period a year ago (Figure 3). Two-thirds of the new patients are coming from referrals, with the balance from a small amount of advertising (yellow pages, radio) that has been constant over the years. “My phone now rings off the hook every day.” Part of this can be attributed to the mothers of young patients: “Kids love it, and their moms go running back to day care and schools and tell other moms,” Kronick mentioned.

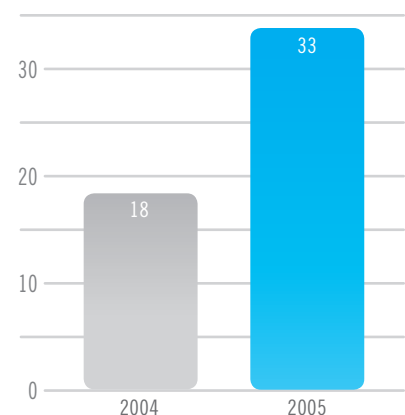
Was it difficult getting started? “Like anything worth pursuing, there’s a learning curve. You need to give yourself permission to take extra time and to make mistakes. At first, you need to be the student before you can be the teacher.” Dr. Kronick also has advice for new users of the Waterlase MD: “Take advantage of the fabulous meetings such as the WCLI (World Clinical Laser Institute) and meet other dentists who will share their laser experiences with you. You will learn a lot, because the lecturers are approachable

and aren’t ‘prima donnas’.” Dr. Kronick speaks with authority here, as she lectures to dental students at the University of Connecticut School of Dental Medicine on restorative procedures.

Has the Waterlase MD been a good investment? Dr. Kronick offers an unqualified “definitely yes” on multiple levels. First, she paid off her laser via additional revenue within 6 months of purchase. Second, this device compares favorably to other opportunities available to dentists. “This laser allows you to increase revenue much more than with any whitening system being promoted to you right now,” commented Dr. Kronick. Third is the professional development. “You will challenge yourself and you will learn more.”

Her final advice: “Call one of us and see what we are doing! The Waterlase MD has helped me grow tremendously without having to get bigger. I have even more time to enjoy life and want my colleagues to have that same experience.” ■

Figure 2  
New Patients per Month  
9 months YTD



# Excelling in the Mainstream



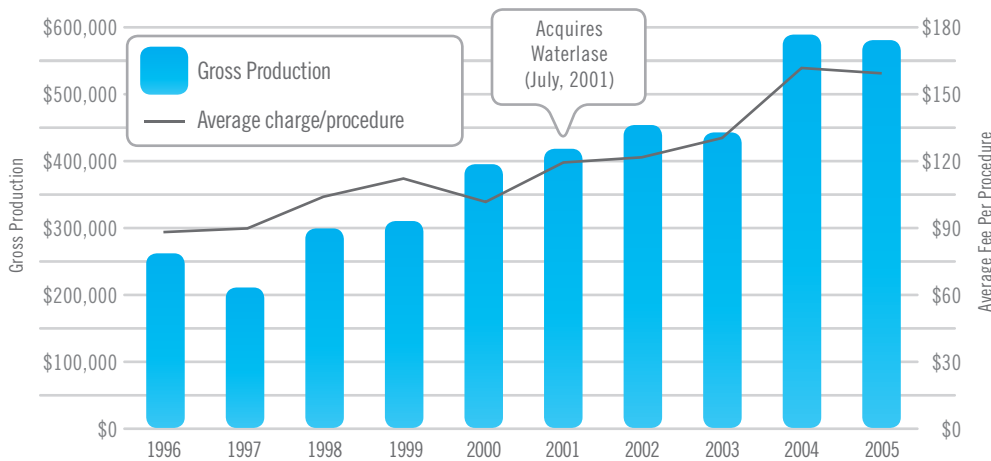
Dr. Mark Stasiulis  
Bensenville,  
Illinois

*Take a drive through Bensenville, Illinois and you will find yourself in Middle America, both literally and figuratively. A suburb of Chicago located not far from O'Hare Airport; Bensenville is where Dr. Mark Stasiulis has been practicing dentistry for the past 24 years. Far from the glamour and glitz of the Magnificent Mile in downtown Chicago, Dr. Stasiulis views his facility as representative of the typical dental practice in the U.S., performing "bread and butter" dentistry. "We don't look anything like those high-image places you see in the dental trade publications," remarked Stasiulis. His patients, however, appreciate the high-tech and high-touch approach to dentistry taken by their dentist, a solo practitioner who does much of the work himself.*

Over the past decade, he re-engineered his practice to incorporate new technology. The journey began in 2000, when he took a course on micro dentistry. This led to an investment in an electric hand piece, Diagnodent caries detection unit, and air abrasion system. His production grew immediately by 27%. "The Diagnodent unit really convinced me that early diagnosis of the decay process led to more conservative early treatment." The air abrasion system with its promise of conservative preparations with no need for anesthetic seemed perfect for these types of restorations. Dr. Stasiulis was frustrated by the dirt and dust created by air abrasion and how it irritated his breathing. The following year he purchased a Waterlase™ laser (BIOLASE, San Clemente, CA). That was in July 2001. Now, nearly 5 years later

with the addition of a LaserSmile™ diode laser (BIOLASE, San Clemente, CA) Dr. Stasiulis has a wealth of experience with the lasers and how they have impacted his practice. "They filled a void in the type of care I wanted to offer," he said. "My days are so much better knowing that I use these lasers to solve problems that present themselves on a daily basis...from desensitizing sensitive roots and painful Aphthous ulcers in less than a minute, to the advanced surgical procedures many of which require only topical anesthetic. I have performed so many restorations with the minimal use of additional anesthetic that they have become routine." Pain management with the lasers has been a great marketing procedure in his practice. "The LaserSmile™ diode laser is used daily to deliver 'low level laser

**Figure 1 – Gross Production, Average Charge per Procedure 1996 – 2005**



therapy’ that relieves many painful dental conditions.” As one patient who received laser treatment for facial pain said, “It’s a miracle”.

“Our patients’ perception seems to be that we are using state of the art technology to give them less invasive treatment for their dental needs. The hardest question I have to answer is why more dentists don’t use lasers”. The lasers have dramatically impacted his patients’ perception of dentistry and of him as a dentist. “My practice and what we do cause our patients to believe that their friends need to know about what we are doing and why we are different.”

Using 10 years of data from the practice, one can see the impact that the lasers has made on a host of financial variables. Annual production has nearly doubled from \$279,000 in the late 1990s to \$529,000 with four full years of laser usage (see Figure 1). The average number of new patients per year has grown 29% over the long term (see Figure 2), “an appropriate amount”, says Dr. Stasiulis, “for a stable practice that does no advertising.” To the contrary, he has used the laser to market “internally” and builds upon the relationships with existing patients. The Waterlase has allowed him to do advanced procedures and eliminate the return trips for many of his patients. “They love the

convenience as well as the higher-tech approach.” Not surprisingly, new patients travel from 1-2 hours away because they’ve been referred by enthusiastic patients.

Beyond revenue and new patients, the effect on his practice can be seen in both the types of procedures he now performs (see Table 1) and the average charge per procedure, which has grown from \$89 in 1996 to the \$150-\$160 range in the past year.

Dr. Stasiulis spends part of his time as a trainer and teacher to help new laser dentists gain confidence and proficiency in use of the technology. “I am self taught, which was necessary five years ago because the collective experience was somewhat limited. It’s much easier today, with many more courses, materials and

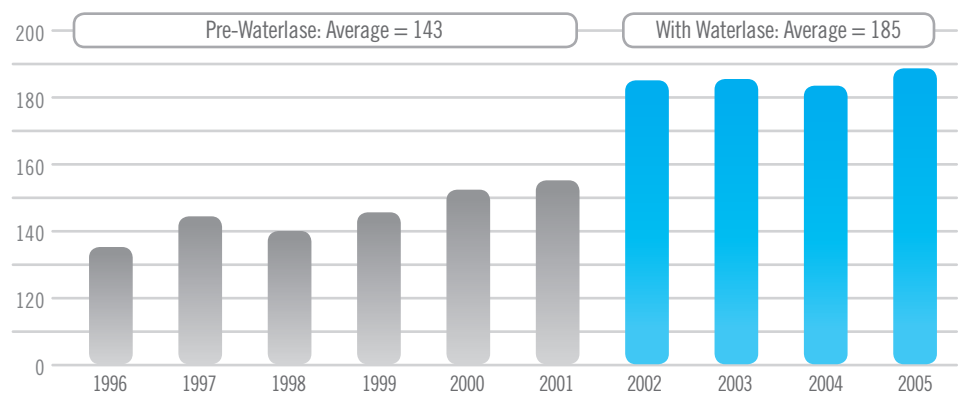
“Learn to use this laser, it will improve your bottom line and it also is a heck of a lot of fun.”



laser-based colleagues that allow us to learn from one another.”

He added that it is essential for new users to “stick to the bread and butter” procedures that are easier to do and will help gain confidence. According to Dr. Stasiulis, all classes of decay, soft tissue work such as gingivectomy, frenectomy and cosmetic gingival recontouring are all good procedures to start with. “One mistake new users make is that they want the laser to do ‘everything’, which is unrealistic of any technology, even one as remarkable as the Waterlase.” However, on a recent training day a new user (Dr. Mark Bancroft) performed a vestibuloplasty as his first laser procedure under Dr. Stasiulis’s watchful eye. “I was so proud of this dentist that embraced the new technology and performed this procedure

**Figure 2 – Advanced Procedures Performed 1996 – 2005**



# Excelling in the Mainstream (continued)

like he had been using it for years; by the way, with no anesthetic except some topical."

His results bear out this experience, as the number of advanced procedures performed has increased dramatically in the 3rd and 4th year since first acquiring the Waterlase. "It takes time to gain the confidence and get good enough to do the procedures taught in the advanced courses. All users will advance their utilization to their individual comfort zone. The list of procedures I don't do is much shorter than the list of those I can." Dr. Stasiulis recently added the new Waterlase MD to his practice. "This new unit is a quantum leap forward from my original Waterlase. It delivers better custom control over desensitization, restoration procedures and unbelievable soft tissue capabilities. This is the unit of choice for dentists to incorporate into their treatment regime."

Aside from managing the learning of the technology, Dr. Stasiulis comes across

colleagues every day who are just unsure if the investment makes financial sense. "On the first day I used the laser, my wife made me keep track of the procedures I couldn't have done that day without the use of the laser to see if it would pay for itself each day. On the third day, she told me to stop keeping track. She saw it was clearly paying for itself right from the start." He added, "Doctors view this as a \$75,000 investment, which is wrong. This is a \$90 a day decision: The right question is, 'can I perform \$90 of additional laser treatment each day?' in order to offset the lease or loan cost when broken down into a daily amount."

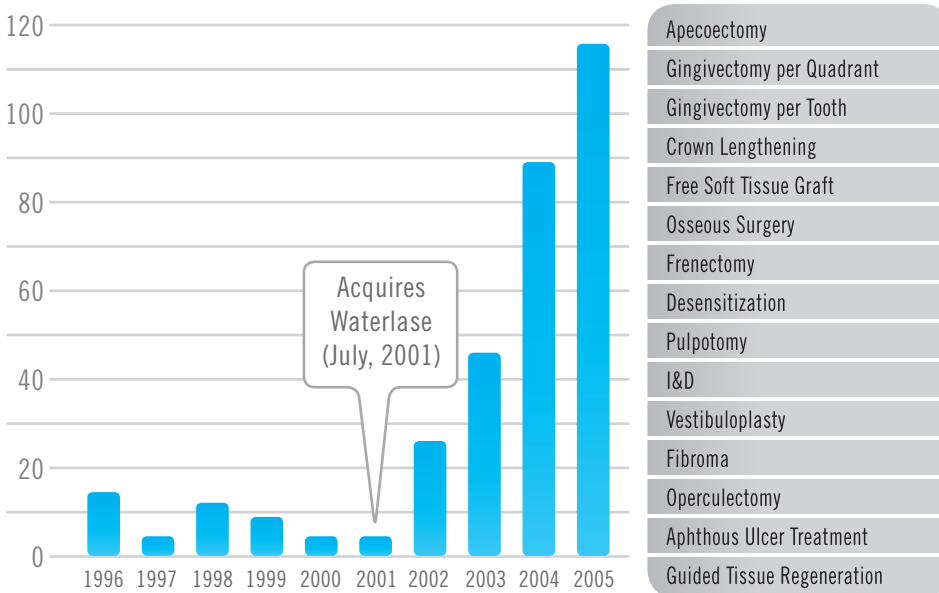
It is this type of analysis that, according to Dr. Stasiulis, is what will create a "tipping point" in dentistry. "Awareness of lasers in medicine and in dentistry simply amazes me. Patients are being exposed to laser-assisted dental treatment through the media. They are looking to our profession for this type of treatment.

Currently only 5-6% of dentist utilize lasers in their practices. I would recommend all dentists considering adding laser treatment into their practices to read the best seller *Who Moved My Cheese*. There is a paradigm shift occurring in dental treatment today. It's great to be part of this movement toward minimally invasive dentistry."

Dr. Stasiulis's enthusiasm for the laser is buoyed by the fact that he treats blue-collar workers as well as CEOs. "My practice isn't fancy, but I wanted to give mainstream America cutting-edge technology when it came to the care of their teeth and mouth." The impact on his patients and his practice has been nothing short of remarkable. My patients love it, and my production and profitability (65% of revenue) have increased. The laser has been a technology investment that has made money and improved customer satisfaction. I rarely see this in dentistry with other devices being promoted to our profession."

His final words of advice to those who are "on the fence" about laser technology: "It doesn't matter what kind of practice you have. Learn to use this laser, it will improve your bottom line and it also is a heck of a lot of fun." ■

Figure 3 – Advanced Procedures Performed 1996



# In My Own Words

*The final case study in this series is somewhat different. Prior to my interview with him, Dr. Jonathan Bregman wrote an essay precisely describing how laser technology has changed his practice. Rather than re-write, I chose to keep the text purely from his perspective as a dentist. Following my introduction, I will turn over the pen to him and allow you to hear his story...in his own words.*

Jonathan Bregman of Durham, North Carolina will be celebrating his 30th anniversary as a dentist this year. He chose the profession at age 19, wanting to help people improve their health and noticing that dentistry had a clear beginning, middle, and end to the interaction with patients. As part of a career goal, he wanted to make sure that anyone who sat in his dental chair would have a positive experience. After following laser technology for about five years, he decided to purchase the Waterlase MD™ last year after hearing about BIOLASE's next generation of advanced dental laser technology. "I've taken thousands of hours of CE over the years and don't 'jump in' but really evaluate what I learn," remarked Dr. Bregman. "I was excited about what this could do for my patients. Once I did the hands-on clinic at a dental meeting, I was convinced that I needed to purchase and integrate the technology into my practice." He acquired a Waterlase MD in early 2005 and says, "This laser has literally changed the way I do dentistry with almost every

procedure I do. That's amazing to me." In fact, one of his patients is the dentist whom he bought his practice from 10 years ago. "He told me that if this laser had been around when he was in practice, he would never have left dentistry." That testimonial, from a dentist-as-patient, is part of what drives Dr. Bregman's passion about laser dentistry. "If I made no additional money using this, it would still be worth it." Here's his story:

## How has the Waterlase MD changed my practice?

### It's all about better and more comfortable patient care

For almost thirty years of practice I have focused on caring for patients in an excellent way. That translates not only to the technical dentistry I perform but also to the care of the patient as a human being. This new technology allows me to do so many procedures in such a way that the patient sits up and says, "I cannot believe what you have just done for me."

## Waterlase MD™ Case Study



Dr. Jonathan Bregman  
Durham,  
North Carolina

# In My Own Words (continued)

They say this because:

1. They did not have a needle ( one of the main reasons that many people do not seek dental care)
2. The procedure was quick and easy for them
3. They experienced no discomfort
4. They left without a numb lip

Post treatment, there has not been one patient who has mentioned any discomfort from a soft tissue procedure that I have done over the last ten months of using the Waterlase MD. This has been accomplished due to a negligible zone of necrosis around the lasered tissue and the sterilization of the area with sealing of the blood and lymphatic vessels besides the nerve endings. With minimal to no swelling or discomfort, that is such a major plus! Here's a short list of what I've been able to accomplish with the laser:

1. Crown and bridge using troughing versus a retraction cord
2. Class V using laser removal of soft tissues versus a retraction cord
3. Biopsies using a laser bandage and topical anesthetic versus local and sutures
4. Operculum removal in conjunction with restoration of a tooth
5. Cosmetic re-contouring of the gingival tissue around anterior teeth with topical versus local and a blade or electrosurgical tissue removal
6. Closed bony crown lengthening in conjunction with routine crown and bridge procedures to create ideal biologic width (3mm from margin to the bony crest) done with the laser as a single visit followed by restoration after the laboratory completes the case versus temporization, referral to specialist, surgical procedure, 6-8

weeks healing, return to my office for re-preparation, impression, new temporization then finally the restoration placed

7. Gingivectomy procedure around orthodontic brackets done with topical anesthetic in just a few minutes compared to local anesthetic with needle, blade tissue removal, packing to cover tissues and perhaps a return visit.
8. Any procedure that I would have previously used a blade to open a soft tissue flap versus the precise cutting and sealing off of the area with the laser.
9. Frenectomy both labially and lingually done with only topical anesthetic and a laser bandage to stop bleeding versus a local anesthetic needle and sutures.
10. Aphthous ulcer treatment previously not able to be done in my office is now done in less than a minute with the laser. Pain is completely and immediately gone. The healing takes place in 2 or 3 days instead of 7-10.

## Predictability

Pre Waterlase MD I would approach procedures that would cause me to wonder just how things would turn out or how I would get a great clinical result if I found 'x'. Now, with the Waterlase MD the stress of dealing with "the unknown" is dramatically decreased. Thus the enjoyment of dentistry has been enhanced or restored with the following procedures.

1. **The class V restoration at or below the gingival crest:** I can quickly and easily remove the tissue to expose decay, create a dry and clear field, then place and finish a much better restoration. All of this is done with no chemical local. I need only topical for the soft tissues. The laser serves to numb the hard

tissues. NO needles, retraction cord, hemostasis, no 'fighting the tissues' required!

2. **The removal of a crown, previously placed filling, deep decay:** I can quickly and easily can remove tissue to gain a dry field for the placement of the restoration or impression
3. **The seemingly shallow Class I restoration with a tooth that has a 'little stick' on the occlusal that turns into a deep area of decay:** I can quickly and easily use the laser to numb the tooth in advance so that there is no worry about that deep area causing the patient a painful reaction. In the past, doing that procedure without local anesthetic because it appeared to be 'just a very shallow cavity' would cause a difficult and stressful situation to occur for the patient as well as the dentist. No longer true with the laser.
4. **Children love the experience:** Quick, easy, painless way to do all soft tissue and hard tissue procedures without "the shot" ordeal for the patient and dentist. One can rely completely on laser numbing for everything from placing routine restorations to pulpotomies. Using topical only, the child experiences no discomfort at all during or after any soft tissue procedure. A common example is removal of an operculum on a molar that needs to be restored. In a matter of moments, the dentist can have a dry and clear field to visualize the distal groove of the tooth to either remove additional decay or seal that area. Parents love the fact that they do not need to watch over their child to insure that they do not accidentally bite a numb lip...because there is no numb lip!
5. **A perfect crown and bridge**

**impression can always be accomplished:** Troughing and hemorrhage control if needed is achieved using the Waterlase MD, which makes this aspect of dentistry so easy and stress free versus retraction cord and hemostasis.

6. **The fearful patient:** the dentist knows that he/she can perform most routine procedures quickly, easily, and painlessly without the dreaded ‘needle, drill, numb lip’.

**Profitability**

Due to greater efficiency and performing many procedures that I had referred out of my office in the past, I have paid for my Waterlase MD many times over each month. Here are the areas where I have achieved greater profitability:

1. **Efficiency:** For many years now, I have performed most procedures in my office quickly and with great care. Using the Waterlase MD, I can do many of these same procedures in a much more time efficient manner because there is no need to place and then wait for a chemical anesthetic effect prior to starting. Also, I can work in multiple quadrants very easily. Quickly and easily gaining and maintaining a dry and clear field for hard tissue procedures saves a huge amount of time and allows for better quality

dentistry. Soft tissue procedures take only a few minutes with no return visit needed (see Table 1).

2. **Additional procedures:** Some of the procedures I am doing that I was not doing prior to getting the Waterlase MD are:

- a. Biopsy
- b. Bony Crown Lengthening
- c. Soft Tissue Crown Lengthening
- d. Aphthous Ulcer Treatment
- e. Herpetic Lesion Treatment
- f. Laser Root Desensitization
- g. Labial Frenectomy
- h. Lingual Frenectomy

3. **Practice builder:** Even after just a few weeks of performing dental laser procedures, we began to have new patients calling our office asking about the new “needle-less” technology. Over these past ten months, we have seen more and more new patients coming into our office for “laser dental care” and many existing patients accepting either new or previously recommended care due to the advantages of dental lasers from the patients’ viewpoint as mentioned previously.

**Dentistry is just more enjoyable to do!**

Adding up all of the pluses mentioned above, having my Waterlase MD makes every day more predictable, enjoyable and less stressful. Also, each day is more profitable. I use my laser with almost every patient. They love it, and I love it. After all, it is really all about the patient and their comfort both physically and emotionally. The Waterlase MD has provided me a tool to meet my patient’s needs in a better way each day. After almost thirty years of clinical dentistry, my life and the way I deliver dental care has been dramatically changed through this technology. Most importantly, the Waterlase MD has changed, in such a positive way, the way my patients experience dentistry.

*Dr. Bregman’s story is typical of dentists who acquire and come to enjoy what the laser does for their practice of dentistry. “Many dentists still know nothing about this technology,” added Dr. Bregman. “I want to spread the message that they should learn about and adopt this technology and not focus so hard on the cost. I believe in that old adage, ‘do what you do well in caring for your patients and the money will follow’. That has never been truer than what I have experienced with the Waterlase MD technology in my practice.” ■*

**Table 1 – Procedure Times: Before & After Waterlase**

Procedure	Pre-laser	Waterlase MD
Occlusal Filling	30 minutes	15 minutes
Crown and Build-Up	75 minutes	60 minutes
Soft Tissue Biopsy (stopped doing and now does via laser)	30 minutes	15 minutes
Facial Class V Filling with Sub-Gingival Involvement (time to perform two fillings)	30 minutes	15 minutes
Gingivectomy (around three teeth)	30 minutes	10 minutes



### **Postscript from the Author:**

As a researcher, what I found most interesting during the interview process was the professional passion that was displayed by these dentists. They were not saddled by the burnout mentality which is so typical of dentists after being in practice for 15 to 20 years. To the contrary, these users of Waterlase technology have an enthusiasm for work that probably exceeds their first days out of dental school. Their incorporation of laser technology has positively impacted them emotionally as well as financially, and there is a joy that's been expressed in the impact they are having on patients, including those who have been previously fearful of dentistry or those who are naturally challenging to work with, such as children. At their core, these dentists are amazed at how the laser has transformed the way they deliver dental care to their patients and want others in their profession to understand just how significant a change the laser can make to one's practice and one's person.

### **About the Author:**

**Shareef Mahdavi** has spent the past twenty years working in senior sales and marketing positions with manufacturers of new medical technology. During that time, he was responsible for launching the laser technology used for LASIK, helping the procedure to become the single-most performed elective surgery procedure in the U.S.

As President of SM2 Consulting, he advises medical device companies and providers on ways to increase market adoption of new technology. As a consultant to BIOLASE,<sup>™</sup> he is researching and writing a series of case studies to better understand the impact on dentists who have integrated the Waterlase MD<sup>™</sup> technology in their practices. Shareef lives with his wife Renée, and their three children in the San Francisco Bay area. You can reach him at SM2 consulting's website, which is [www.sm2consulting.com](http://www.sm2consulting.com).

03/2006

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