

Waterlase*\*iPlus*<sup>™</sup>





*"With my Waterlase, I am keeping patients in my office. In the past, I used to refer many of these procedures out. I am now doing frenectomies in my office...Having Waterlase technology allowed me to double the revenue of the practice almost immediately."*

— Dr. Puja Goel, Fremont, CA

# The Essential Addition to Your Practice

- ★ **The world's most trusted all-tissue laser** designed specifically for dentistry — the **#1 All-tissue Laser System** sold globally
- ★ **Over 80** FDA cleared indications
- ★ Minimally invasive and kinder to the tissue, with **little to no anesthesia** necessary for most procedures
- ★ **Perform revenue generating everyday procedures** on adults and kids, including restorative, frenectomy, gingivectomy, perio treatments, endodontics, crown lengthening and more!



## Less Aerosols. More Revenue



Dental Drill

*Waterlase Dentistry*

**98%**  
**LESS AEROSOLS**  
**THAN TRADITIONAL**  
**HANDPIECES!**

Give patients and staff peace of mind with safe and effective Waterlase laser dentistry. Waterlase creates **98% less aerosols<sup>1</sup> compared to traditional high-speed handpieces** using the ISO 14457 recommended flow rate.<sup>2</sup>

(1) Data on file (2) ISO 14457:2017 recommended standard

# Less Painful Restorative

- ✦ **Less pain/discomfort** — with little to no anesthesia required.
- ✦ **Less postoperative swelling/pain.**
- ✦ Precise ablation of caries **conserves more healthy tissue.**
- ✦ Same-day, **multi-quadrant treatments** require fewer appointments and are more convenient.

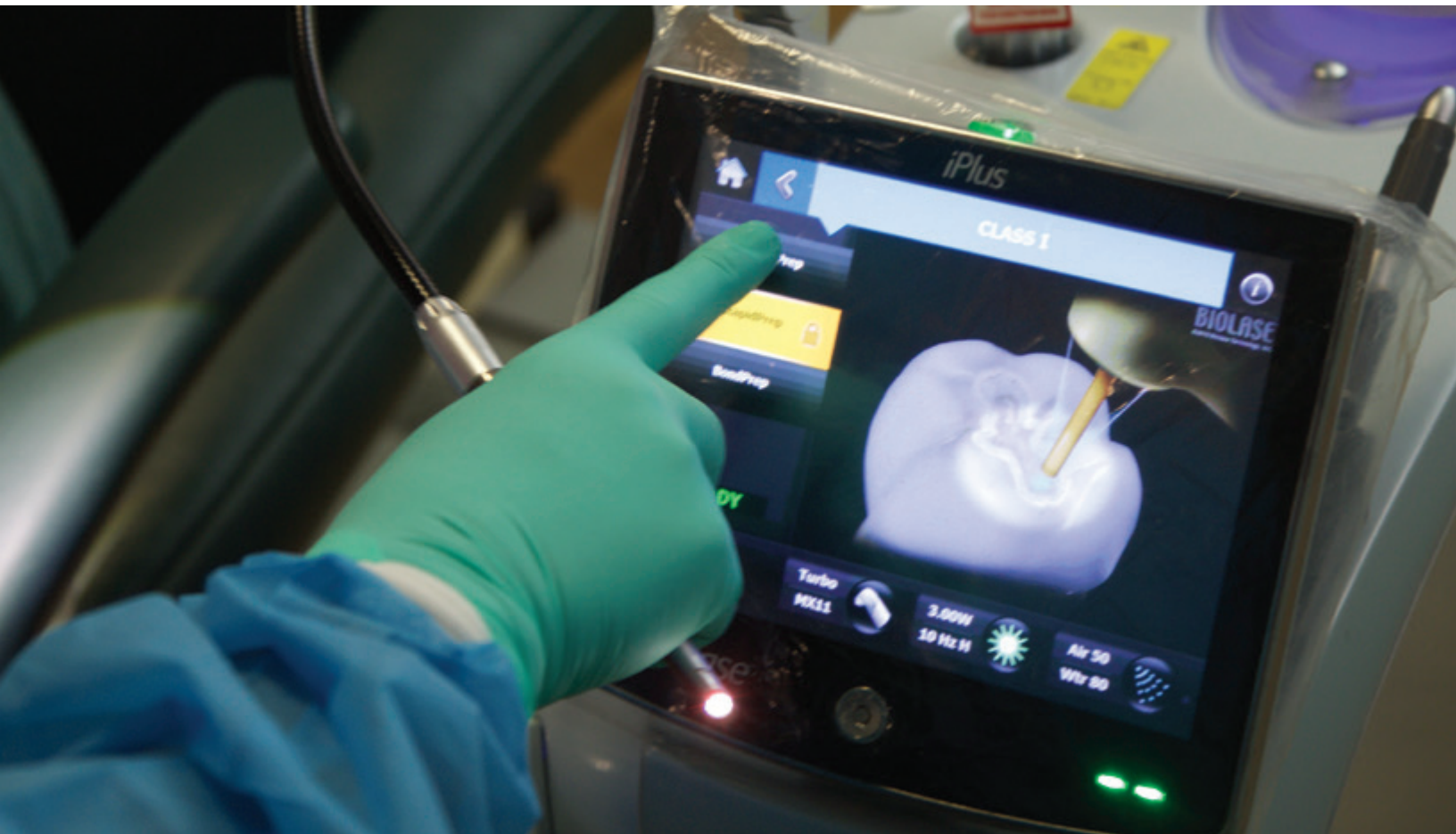


*“After we added the Waterlase iPlus, production went up 43% in the first six months and has never stopped growing. We now consistently do more in a day than the practice was doing in a month.”*

— Dr. Patrick Ruehle, Denton, TX

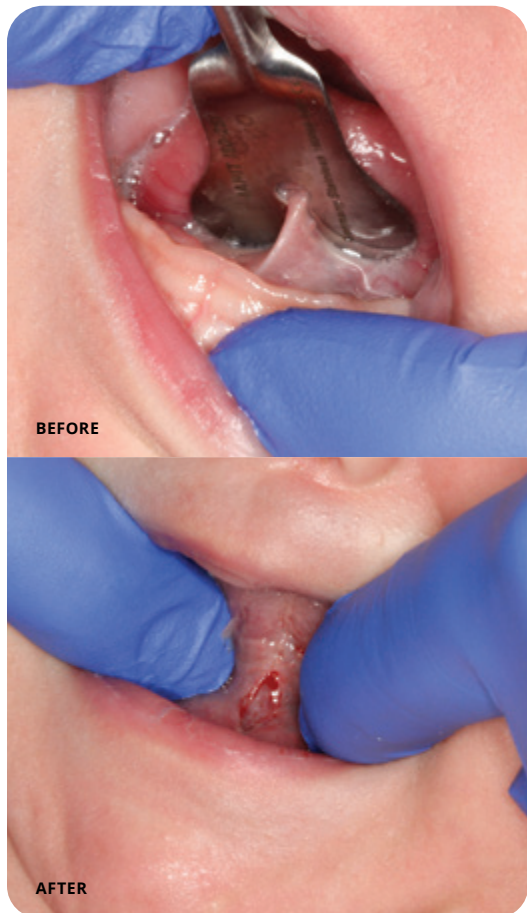


Images courtesy of Dr. John Blach





## More “THANK YOU”S from Parents



- ✦ Gentle and precise tooth decay removal with **less aerosols, less vibration and little-to-no anesthesia.**
- ✦ Faster, multi-quadrant dentistry for more **same day treatments** and fewer follow up visits.
- ✦ **Quick & easy frenectomies** grow revenue with one simple 5-minute procedure.
- ✦ Soft tissue procedures with **less blood and faster healing** than traditional scalpel/suture methods.



*“Waterlase is very, very predictable and precise in its use. It helps me to be more minimally invasive in both my soft tissue and restorative treatment procedures. My Waterlase literally blows the caries away for my restorative procedures and helps me safely and effectively treat infants and children for frenectomies.”*

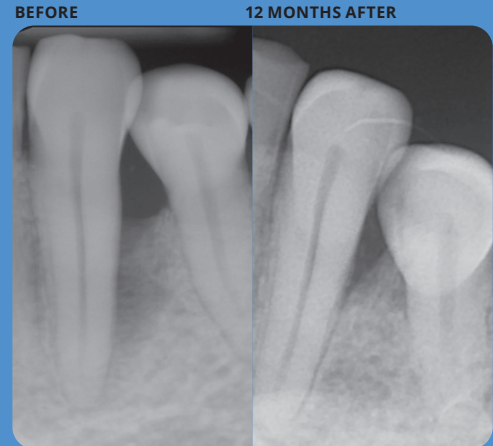
— Ben Curtis, DDS, Canton, TX

Images courtesy of Dr. Linda Murzyn-Dantzer

# Periodontics



Images courtesy of Dr. Todd Jorgenson



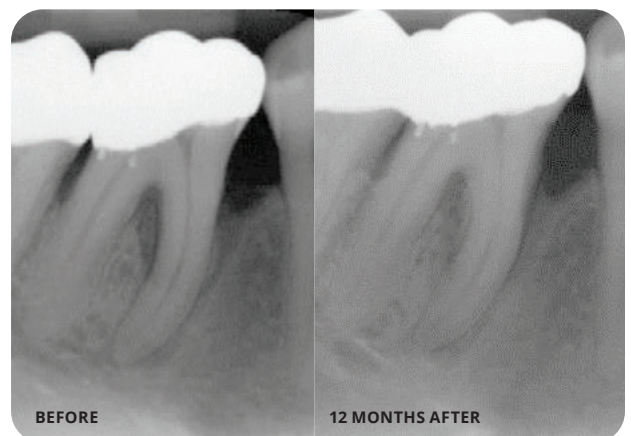
Images courtesy of Dr. Stephen John

- ✦ Superior patient reported outcomes, with **less bleeding, swelling & bruising**.
- ✦ **Faster** procedure times.
- ✦ Results backed by landmark, **first-of-its-kind clinical study** designed to meet the stringent AAP Best Evidence Consensus standard, published in the Journal of Periodontology.



*"I use my Waterlase for almost every periodontal, oral surgery and implant procedure. I have less bleeding during and after treatment, better visual access, less trauma, less post-op discomfort and a much happier patient."*

— Stephen John, DDS, San Mateo, CA



Images courtesy of Dr. Rana Al-Falaki

# Backed by Landmark Clinical Perio Study

## *A Comparison of Er,Cr:YSGG laser to Minimally Invasive Surgical Technique in the Treatment of Intrabony Defects: Six-Month Results of a Multicenter, Randomized, Controlled Study*

Donald Clem, Rick Heard, Michael McGuire, E. Todd Scheyer, Chris Richardson, Gregory Toback, Chad Gwaltney, John C. Gunsolley

<https://doi.org/10.1002/JPER.20-0028>

### *The **ONLY** laser perio study that is:*

#### MULTI-CENTERED, RANDOMIZED, CONTROLLED & BLINDED

- ✦ Performed by 6 Periodontists, including non-laser users at the start of the study.
- ✦ Random case selection of 53 patients throughout 5 nationwide sites.

#### MEETS AAP BEST EVIDENCE CONCENSUS (BEC) STANDARDS

- ✦ BEC standards asked for unbiased, standardized laser protocol studies with larger sized RCTs, more than one investigator, and to focus on patient-centered outcomes.

#### HEAD TO HEAD VS. MIST

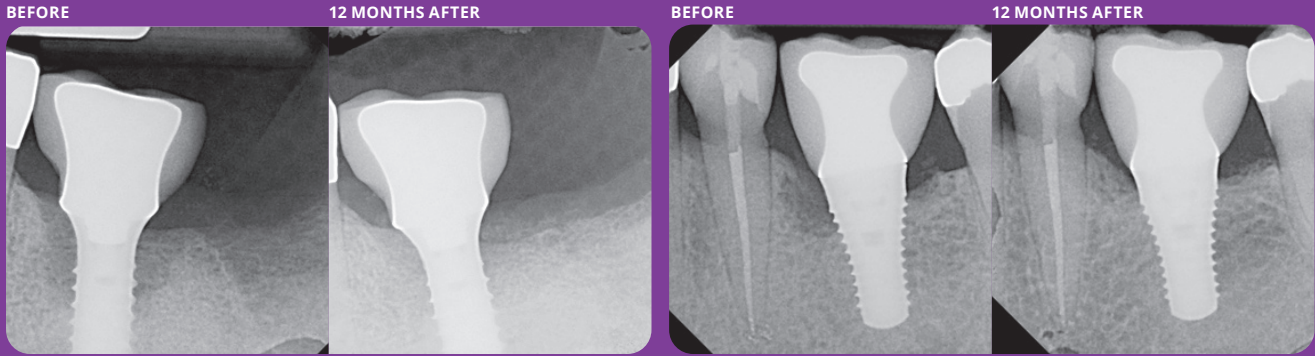
- ✦ No other laser study has gone head-to-head vs. MIST.
- ✦ Minimally invasive Waterlase REPAIR™ protocols achieve superior patient reported outcomes (less swelling, bruising, bleeding) and faster procedure times — with equivalent clinical results to the latest open flap techniques.



*"Having used various laser wavelengths for over 15 years, I have found the Waterlase platform to be the most advanced, versatile, and user-friendly interface for my practice's focus on periodontology and dental implant surgery."*

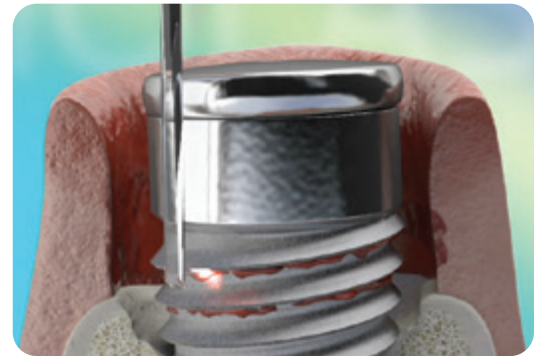
— Rick H. Heard, DDS, MS, Victoria, TX

# Peri-Implantitis



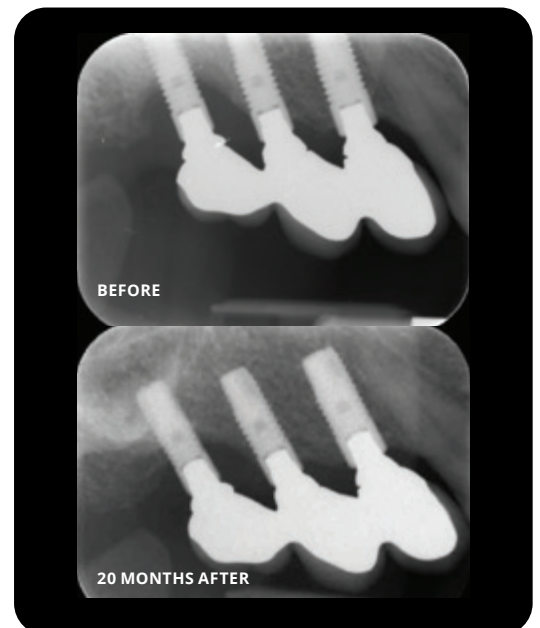
Images courtesy of Dr. Todd Jorgenson

- ✦ **Removes >98% of biofilm on infected titanium implant surfaces** without significantly affecting surface temperature.<sup>1</sup>
- ✦ **Higher case acceptance** and **referrals** by adopting minimally invasive techniques.
- ✦ Results supported by a **first-of-its-kind human histologic study** published in the Official Journal of The Academy of Osseointegration.<sup>1</sup>



*“Utilizing Waterlase is a daily part of my practice. It seems I am trying to save a failing implant, treat a periodontally involved tooth, biopsy a lesion, or treat other soft tissue defects every day, and I cannot imagine my practice without Waterlase. I would highly recommend every dentist have this instrument. Your patients will thank you.”*

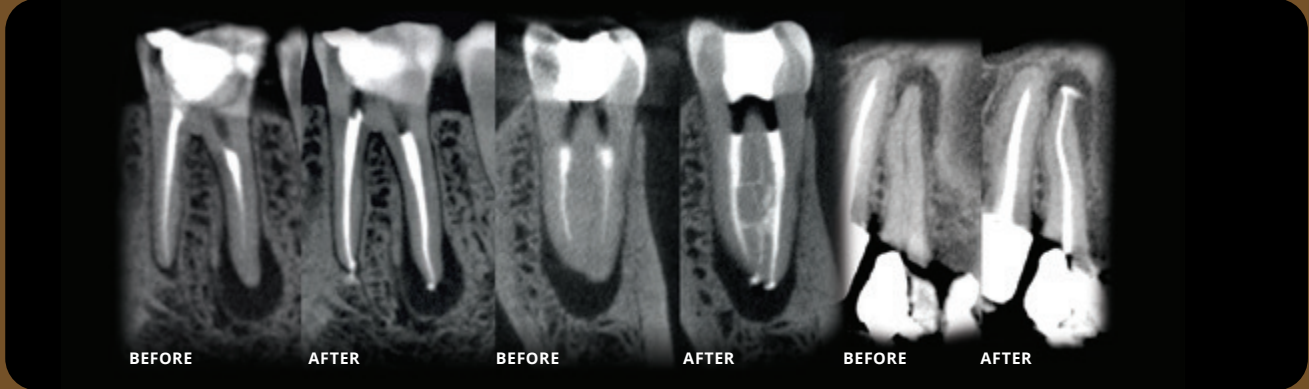
— Dr. Todd Jorgenson  
Mesa, AZ



<sup>1</sup> Human Histologic Evaluations of the Use of Er,Cr:YSGG Laser to Decontaminate an Infected Dental Implant Surface in Preparation for Implant Reosseointegration; Myron Nevins, Stefano Parma Benfenati, Primo Galletti, et. al.; International Journal of Periodontics and Restorative Dentistry, November/December 2020, Volume 40, Issue 6



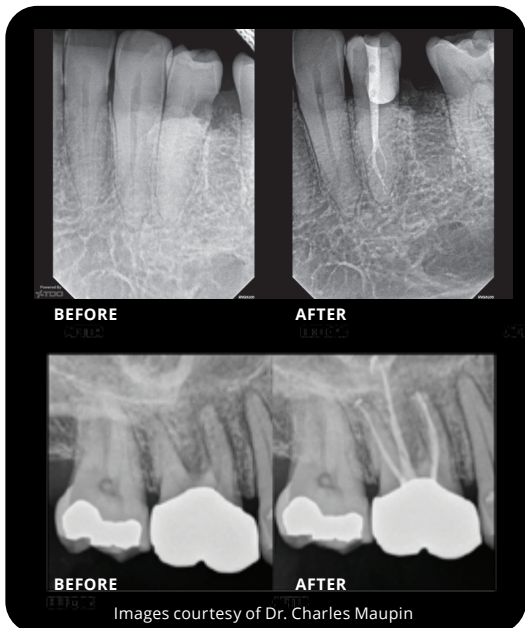
# Endodontics



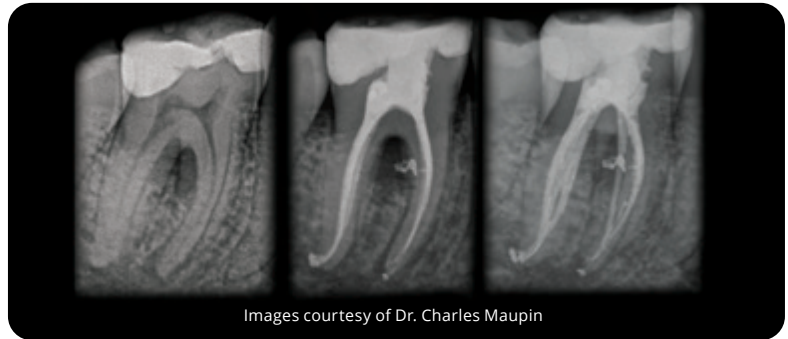
Images courtesy of Dr. Francisco A. Banchs



- ✦ **Improve Efficiency** within Your Workflow
- ✦ **More Productivity** and **Less Fatigue**
- ✦ **Less Post-Op Patient Discomfort**
- ✦ **Exceptional Fluid Dynamics**
- ✦ Remove Smear Layer and Destroy Biofilm with **Deep Lateral Cleaning**



Images courtesy of Dr. Charles Maupin



Images courtesy of Dr. Charles Maupin



*"Waterlase provides predictable and efficient disinfection, while minimizing post-op discomfort and allowing for maximum conservation of tooth structure."*

— Charles Maupin, DDS, Lubbock, TX

# Everyday Revenue Growth

Increasing the cash flow in your practice is as easy as performing just three types of procedures a month with the Waterlase iPlus, the world's most preferred all-tissue laser.



## GENERAL DENTIST SPOTLIGHT



Dr. Ruehle differentiated his practice with a focus on patient growth from optimal care and efficient treatment. Waterlase helped increase referrals and production over 350%.

*"Waterlase helps my practice grow and makes dentistry fun. Most importantly, I know I am giving my patients optimal care. Production went up 43% in the first six months and has never stopped growing."*

— Dr. Patrick Ruehle, Denton, TX

Hourly Production

↑ **\$700+**

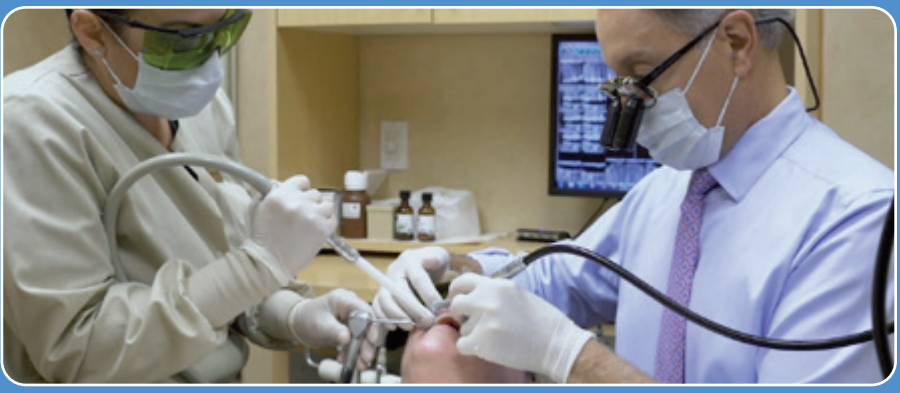
Production

↑ **356%**

Referrals

↑ **350%**

PERIO SPOTLIGHT 




*"I use the Waterlase everyday on almost every patient...procedures such as Class V composites, closed-flap crown lengthening, REPAIR surgery for periodontal disease, removal of smear layer prior to any bonding treatment, pre-impression troughing and more. It's the main practice-builder in my business."*

— Dr. Kenneth Canzoneri, Arcadia, CA


Hourly Production

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 **\$150+**


Production

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 **600%**

Referrals

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 **100%**

 ENDO SPOTLIGHT



*"I dont have to open canals as wide to get irrigation down to the apex. I went from 4 files to now 2 files. Thats a huge savings, because files are extremely expensive. I've dropped down my treatment time by 30%. Waterlase saves so much time with file usage and treatment time that you can do another full root canal per day, so you get another 25-30% more production per day, just by implementing the laser. Besides saving time and producing more, you are cleaning the canal better. It just seems like a no-brainer."*

— Dr. Yigal Zibari, Manhattan Beach, CA

Chair Time

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 **30% LESS**

Production

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 **+1 RCT/DAY**

File Cost

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 **50% LESS**

# World-Class Training

Choose from a wide range of learning tools and educational solutions to meet your learning style, including:

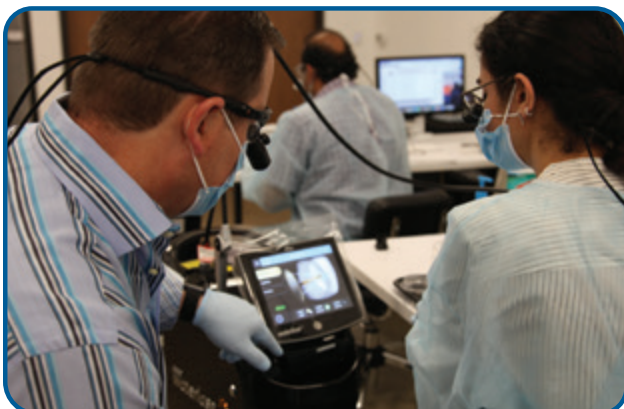
- ✦ Group or in-office certification training
- ✦ Advanced laser training courses
- ✦ On-demand online training
- ✦ Full schedule of live and online CE events
- ✦ Comprehensive library of published clinical articles and videos from laser researchers and experts worldwide

## CERTIFIED TRAINING COURSES (CTC)

Combining lecture and hands-on exercises, CTC teaches you essential soft tissue, hard tissue, perio (including REPAIR) and endo procedures that you can immediately provide your patients with new or enhanced treatment techniques that will improve their experiences in your practice.

## ADVANCED TRAINING COURSES (ATC)

Develop your clinical skills with in-depth training on a particular technique or treatment. Advanced training courses offered for pediatrics and periodontics. As you hone your skills, you can move on to **Master Level** courses offered in locations worldwide.



# Exclusive Waterlase Academies

Join an exclusive community of leading Waterlase dentists dedicated to improving patient outcomes and profitability with new technology.



## BENEFITS OF JOINING INCLUDE:

- ✦ Ongoing mentorship from Leading Waterlase Clinicians with didactic online meetings and case reviews by Waterlase experts.
- ✦ Train in-person with leading Waterlase Academy clinicians.
- ✦ Enjoy unlimited virtual group trainings and access to online forums for peer discussion and case reviews.
- ✦ Get On-Demand access to the Waterlase Academy library of clinical resources and webinars

## REMOTE LEARNING AND WEBINARS

Leading dental professionals teach clinicians how to get the most out of their Waterlase technology and grow their practices, right from the comfort of their home or office.

See our extensive library of on-demand webinars at [biolase.com/Webinars-on-demand](http://biolase.com/Webinars-on-demand)



## DEDICATED SERVICE FORCE

At BIOLASE, we pride ourselves in having a **dedicated team** of Field Service Engineers trained to meet your needs and answer your questions. In addition, we have an inside service team available to serve you.

Reach our Service & Support Hotline at **800.321.6717**.

# Clinical Indications

## SOFT TISSUE (Including Pulpal Tissue)\*

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*Incision, excision, vaporization, ablation and coagulation of oral soft tissues, including:*

- ✦ Excisional and incisive biopsies
- ✦ Exposure of unerupted teeth
- ✦ Fibroma removal
- ✦ Flap preparation – incision of soft tissue to prepare a flap and expose the bone
- ✦ Flap preparation – incision of soft tissue to prepare a flap and expose unerupted teeth (hard and soft tissue impactions)
- ✦ Frenectomy and frenotomy
- ✦ Gingival troughing for crown impressions
- ✦ Gingivectomy
- ✦ Gingivoplasty
- ✦ Gingival incision and excision
- ✦ Hemostasis
- ✦ Implant recovery
- ✦ Incision and drainage of abscesses
- ✦ Laser soft tissue curettage of the post-extraction tooth sockets and the periapical area during apical surgery
- ✦ Leukoplakia
- ✦ Operculectomy
- ✦ Oral papillectomies
- ✦ Pulpotomy
- ✦ Pulp extirpation
- ✦ Pulpotomy as an adjunct to root canal therapy
- ✦ Root canal debridement and cleaning
- ✦ Reduction of gingival hypertrophy
- ✦ Soft tissue crown lengthening
- ✦ Treatment of canker sores, herpetic and aphthous ulcers of the oral mucosa
- ✦ Vestibuloplasty

## HARD TISSUE

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General Indications\*

- ✦ Class I, II, III, IV and V cavity preparation
- ✦ Caries removal
- ✦ Hard tissue surface roughening or etching
- ✦ Enameloplasty, excavation of pits and fissures for placement of sealants

## LASER PERIODONTAL PROCEDURES

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- ✦ REPAIR Protocol: Waterlase Er,Cr:YSGG assisted new attachment procedure (cementum-mediated periodontal ligament new attachment to the root surface in the absence of long junctional epithelium)
- ✦ Removal of subgingival calculi in periodontal pockets with periodontitis by closed or open curettage
- ✦ Removal of highly inflamed edematous tissue affected by bacteria penetration of the pocket lining and junctional epithelium
- ✦ Full thickness flap
- ✦ Partial thickness flap
- ✦ Split thickness flap
- ✦ Laser soft tissue curettage
- ✦ Laser removal of diseased, infected, inflamed and necrosed soft tissue within the periodontal pocket
- ✦ Removal of granulation tissue from bony defects
- ✦ Sulcular debridement (removal of diseased, infected, inflamed or necrosed soft tissue in the periodontal pocket to improve clinical indices including gingival index, gingival bleeding index, probe depth, attachment loss and tooth mobility)
- ✦ Osteoplasty and osseous recontouring (removal of bone to correct osseous defects and create physiologic osseous contours)

- ✦ Ostectomy (resection of bone to restore bony architecture, resection of bone for grafting, etc.)
- ✦ Osseous crown lengthening

## ENDODONTIC SURGERY (AMPUTATION)

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- ✦ Flap preparation – incision of soft tissue to prepare a flap and expose the bone
- ✦ Cutting bone to prepare a window access to the apex (apices) of the root(s)
- ✦ Apicoectomy – amputation of the root end
- ✦ Root end preparation for retrofill amalgam or composite
- ✦ Removal of pathological tissues (i.e. cysts, neoplasm or abscess) and hyperplastic tissues (i.e., granulation tissue) from around the apex

## ROOT CANAL HARD TISSUE

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- ✦ Tooth preparation to obtain access to root canal
- ✦ Root canal preparation including enlargement
- ✦ Root canal debridement and cleaning
- ✦ Laser root canal disinfection after endodontic instrumentation

## BONE/SURGICAL

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- ✦ Cutting, shaving, contouring and resection of oral osseous tissues (bone)
- ✦ Osteotomy

## CROWN & VENEER

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- ✦ Removal of ceramic and porcelain crowns and veneers\*\*

\*For use on adult and pediatric patients. \*\*For all ceramic and porcelain crowns and veneers.  
 IMPORTANT: Review all Contraindications, Warnings and Precautions presented in the User Manual before proceeding with using a laser device on patients.  
 NOTE: Any tissue growth (i.e., cyst, neoplasm or other lesions) must be submitted to a qualified laboratory for histopathological evaluation.

# Technical

## DIMENSIONS

Unit (W x L x H):	11.0 x 18.9 x 35.5 in (27.9 x 48.0 x 85.1 cm)
With Fiber (W x L x H):	11.0 x 18.9 x 53.3 in (27.9 x 48.0 x 135.4 cm)
Weight:	75 lbs. (34 kg)

## ELECTRICAL

Class I Medical Electrical (ME) Equipment	
Operating voltage:	100 VAC $\pm$ 10% / 230 VAC $\pm$ 10%
Frequency:	50 / 60 Hz
Current rating:	5 A / 8 A
Main control:	Circuit breaker
On / Off control:	Keyswitch
Remote interruption:	Remote interlock connector

## WATER SPRAY

Water type:	Distilled or De-ionized only
External air source:	80 – 120 psi. (5.5 - 8.2 bar)
Water:	0 – 100%
Air:	0 – 100%
Interaction zone:	0.5 – 5.0 mm from handpiece tip to target

## OPTICAL

Laser classification:	IV (4)
Medium:	Er,Cr:YSGG (Erbium, Chromium: Yttrium, Scandium, Gallium, Garnet)
Wavelength:	2.78 $\mu$ m (2780 nm)
Frequency:	5 – 100 Hz
Average power:	0.1 – 10.0 W
Power accuracy:	$\pm$ 20%
Pulse energy:	0 – 600 mJ
Pulse duration "H" mode:	60 $\mu$ s
Pulse duration "S" mode:	700 $\mu$ s
Handpiece head angles:	70° contra-angle
Gold HP Tip diameter range:	200 – 1200 $\mu$ m
Turbo Tip focal diameter range:	500 – 1100 $\mu$ m
Output divergence:	$\geq$ 8° per side
Mode:	Multimode
Aiming beam:	635 nm (red) laser, 1 mW max (safety classification 1)
Water level sensor beam:	635 nm laser, 1 mW max (safety classification 1)
Nominal Ocular Hazard Distance (NOHD):	5 cm
Maximum Permissible Exposure (MPE):	3.5 x 10 <sup>5</sup> W/m <sup>2</sup>



Waterlase<sup>®</sup> iPlus<sup>™</sup>



Visit [biolase.com/Waterlase-iPlus](https://biolase.com/Waterlase-iPlus)  
to learn more about the  
*Worlds' Most Trusted All-tissue Laser.*

**BIOLASE**

Advancing Dentistry<sup>™</sup>

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