BREAKING THE SPEED BARRIER
BIOLASE presents to you the best laser ever!

The WaterLase iPlus™ All-Tissue Laser system – the most versatile and biological instrument you can add to your practice – is the first laser that’s BREAKING THE SPEED BARRIER with the fastest cutting, quickest learning curve, and ultimate payback.

WaterLase is the alternative technology you’ve always wished you had for patient-friendly treatment. Now you have every reason to add it. Its cutting speed is equal to the conventional high-speed dental drill, while offering far superior clinical results and virtually painless dentistry. Its informative and intuitive graphical user interface makes it very easy to learn and use.

Dentistry has long awaited real change and new technology. Now that we’ve combined the greatly enhanced clinical results and patient comfort of WaterLase with the fastest, most versatile laser in the world . . . the revolution is finally here!

[Signature]

Federico Pignatelli
Chairman & CEO
BIOLASE Technology, Inc.
NO SHOT, NO DRILL, NO PAIN™*

CUTTING SPEED EQUAL TO THE
HIGH-SPEED DRILL AND FASTER
THAN ANY OTHER LASER...

INTUITIVE...

NO CROSS-CONTAMINATION
RISK LIKE THE DRILL**

SOUND LIKE ANY LASER
YOU’VE EVER SEEN?

**“No shot, no drill, no pain” is not a claim of clinical efficacy, but a goal of WaterLase technology. Because each patient’s perception of discomfort during treatment is based on individual sensitivity to pain, treatment history, and the procedure being performed, not all patients can be treated without anesthetic. However, dentists using WaterLase to perform typical cavity preparations report not using anesthetic in the majority of cases.

**Studies show that sterilization of used burs and endodontic files is less than 100% effective. Single-use WaterLase tips avoid this cross-contamination risk.

“WhatLase technology has completely transformed the dental experience for my patients and for me. Now BIOLASE has once again transformed laser dentistry! The WaterLase iPlus™ is a true breakthrough in speed, ease of use, and productivity!”

– Dr. Stewart Rosenberg
Laurel, MD

“WaterLase has always delivered the best patient comfort and clinical results. Now it’s also number one in speed, simplicity, and return on investment.”

– Dr. William Chen
Granite City, IL

WHAT’S INSIDE:

► WaterLase and What It Will Do for You
► iPlus Clinical Applications
► The iPlus Intuitive & Intelligent User Interface
► WaterLase Periodontal Therapy
► WaterLase Endodontics
► Tips & Accessories
► Optional iLase Wireless Diode Laser
► Practice Integration
► Performance & Productivity Features
► Specifications & Options
“Every day my patients and I get great pleasure from the efficiency, aesthetics, comfort, and safety of WaterLase technology. I cannot imagine how I would work without it in my everyday practice.”

– Dr. Olga Risovannaya
Krasnodar, Russia
WHAT DO YOUR PATIENTS REALLY THINK ABOUT YOU?

Actually, they love you – they really do – everything from your comfortable chair, to how you care about their teeth, to that squeaky-tooth feeling after seeing your hygienists. They love it all… except for your drill and needles.

The WaterLase will give you a truly different alternative to the traditional tools you’ve been using to treat patients. WaterLase technology can completely alter your outlook on your profession and how patients feel about you. **Unlike drills and needles, patients love WaterLase.**

97% of WaterLase patients are very likely to recommend it to their friends and family members*. You can be the advanced WaterLase dentist that patients are recommending. Once they know you care enough to offer WaterLase treatment, they become walking advertisements for your practice.

Adding WaterLase technology to your life gives your patients the option to love everything about you.

---

“**The WaterLase has made going to the office more fun – for our patients and for our entire dental team.**”

– Dr. Fred S. Margolis
Pediatric Dentist
Buffalo Grove, IL

“**The WaterLase iPlus® has changed my patients’ perception – from fear and pain to comfort and appreciation.**”

– Dr. Howard Golan
Manhasset, NY

---

BE LOVED BY YOUR PATIENTS... USE THE WATERLASE!

Productivity in dentistry requires tools that let you work fast. BIOLASE R&D set out to beat the current standard in cutting speed, the high-speed drill. In tissue removal speed and overall chair time, iPlus™ wins.

**THE BEST HARD TISSUE LASER ON THE MARKET**

The YSGG iPlus provides significantly better coagulation of soft tissue than erbium YAG lasers because it penetrates deeper into water-rich tissue. Along with the iPlus’s long pulse, high pulse repetition rate, and precise water control, this makes iPlus among the best surgical laser tools.


**FASTER THAN THE HIGH-SPEED DRILL.**

Eliminating the need to administer anesthetic in most restorative cases will provide an immediate and significant boost in your productivity – not to mention your popularity with patients.

"Fast and painless! The procedure was over before I’d even made myself comfortable in the dental chair!"

– J.R., WaterLase Patient
Somerset, MA

*2011 Townie Choice Award for Best Hard Tissue Laser
“Every single patient is amazed at how fast, easy, and pain-free the WaterLase procedure was performed. They question me with ‘that’s it!? after I raise the chair. A 30-40 minute appointment is now completed in 5-10 minutes, if even that!”

– Dr. Chris Bugg, General Dentist Cushing, OK

“With double the energy and half the pulse, I can cut posterior teeth in only a minute or two while optimizing patient comfort and reducing anxiety.”

– Dr. Bill Greider
Fort Meyers, FL

BIOLASE R&D gave the iPlus the most innovative laser “power plant” of any medical laser. Twice as efficient as previous YSGG lasers, the revolutionary YR™ powered laser delivers extremely short pulses with more than 10,000 watts of peak power at up to 100 pulses/sec.

**BIOLASE Internal Test Documentation**
CUTTING SPEED EQUAL TO THE DREADED HIGH-SPEED DRILL AND FASTER THAN ANY OTHER LASER.

Both the iPlus™ Er,Cr:YSGG and erbium YAG lasers cut by energizing water molecules within the target tissue and from the spray on the tissue surface. Laser energy rapidly increases the temperature of the water, pressurizing and breaking apart the crystalline enamel prisms within hard tissue.

The iPlus cuts dentin and enamel better than erbium lasers, because (as the graphs here show) when temperature increases during excitation of water by the laser pulse, less Er:YAG laser energy is absorbed and more YSGG energy is absorbed. The result is that YSGG cuts faster than Er:YAG.

The science may be complex, but the goal is simple – to create a painless, anxiety-free, and convenient experience for your patients. Imagine an entire new generation of patients who never worry about coming to the dentist.

With water excitation, absorption at 2.79 µm increases from 5,000 to 8,000 cm\(^{-1}\).


With water excitation, absorption at 2.94 µm decreases from 12,000 down to 4,000 cm\(^{-1}\).

Ashley J. Welch et al., Optical-Thermal Response of Laser Irradiated Tissue, Plenum, 1996.
“Since becoming a laser dentist in 2000, my practice has grown tremendously, because of the more gentle approach using laser-assisted techniques. From management, to laser-assisted root canal therapy, and minimally invasive restorative techniques, patients appreciate the efficiency and excellent results provided by utilizing laser therapy. Isn’t that what it is all about, providing our patients with the best that dentistry has to offer?”

– Dr. Bruce Cassis
Fayetteville, WV

“I have owned and currently own all of BIOLASE WaterLase lasers, and my iPlus is by far the single most advanced laser ever produced in terms of cutting speed, not only for teeth but soft tissue and bone as well. I never thought it was ever going to be that different from the last WaterLase MD that I have, but it is!”

– Dr. Steven Spitz
Boston, MA
THE MOST RAPID ADVANCEMENT OF YOUR LASER KNOWLEDGE AND SKILLS.

CERTIFICATION TRAINING COURSES
Combining lecture, hands-on exercises, and live patient procedures can be included with the purchase of each iPlus™ laser system. As you hone your skills, move on to Master Level courses offered in locations worldwide.

BIOLASE IS A WORLD LEADER IN LASER EDUCATION AND TRAINING THROUGH THE WORLD CLINICAL LASER INSTITUTE
With more than 14,000 members worldwide, it is the largest dental and medical laser education organization in the world. WCLI symposiums are held frequently around the world.

LASER STUDY CLUBS
BIOLASE organizes Laser Study Clubs wherever WaterLase owners want to further their learning by inviting guest speakers, sharing techniques, and mentoring new laser owners.

“Being a laser dentist has opened many doors for me. Through WCLI, study clubs, and laser courses, I have met many wonderful people and have been able to expand my contacts within dentistry.”

– Dr. Karen Foster, Pediatric Dentist
Aurora, CO
“We continue to learn about the lasers and use them more and more, because when we go to CE courses and when we go to the Laser Study Club in Denver, we’re encouraged by other practitioners in the area to increase our applications of the lasers.”

– Dr. Betty Barr, Pediatric Dentist, Westminster, CO

LECTURE AT WCLI SYMPOSIA WORLDWIDE

ATTAIN WCLI MASTERSHIP

PUBLISH CLINICAL ARTICLE

PRESENT AT LOCAL BIOLASE STUDY CLUB

PERFORM LIVE PROCEDURE FOR PROSPECTS

MASTER LEVEL COURSE

ATTAIN WCLI FELLOWSHIP

MENTOR NEW WATERLASE DENTIST

ATTEND LOCAL BIOLASE STUDY CLUB

ATTEND WCLI SYMPOSIUM

CERTIFICATION TRAINING COURSE

TRAIN YOUR WAY TO THE TOP
The WaterLase iPlus™ is the most versatile and productive technology you can own. The water-energizing YSGG laser is equally effective on hard and soft tissue. Applications are nearly unlimited, and BIOLASE clinical research and WaterLase users are continually adding more.

“I am significantly faster and much more efficient with any procedure using the iPlus laser than with anesthetic and a drill or a #15 blade. But what is most rewarding is the look on the patient’s face when they hear that we are done. That truly is PRICELESS.”

– Dr. Jose Aunon
Centreville, VA

<table>
<thead>
<tr>
<th>CDT Code</th>
<th>Category</th>
<th>Procedure</th>
<th>Anesthetic</th>
<th>R.O.I.*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1351</td>
<td>Preventive</td>
<td>Hard tissue surface roughening or etching, excavation of pits and fissures for placement of sealant — per tooth*</td>
<td>no</td>
<td>$</td>
</tr>
<tr>
<td>2335</td>
<td>Restorative</td>
<td>Class II, III &amp; IV composites* (four or more surfaces or involving incisal angle)</td>
<td>no</td>
<td>$$</td>
</tr>
<tr>
<td>2394</td>
<td>Restorative</td>
<td>Class II &amp; III composites* (three surfaces)</td>
<td>no</td>
<td>$</td>
</tr>
<tr>
<td>2332</td>
<td>Restorative</td>
<td>Class II &amp; III composites* (two surfaces)</td>
<td>no</td>
<td>$</td>
</tr>
<tr>
<td>2393</td>
<td>Restorative</td>
<td>Class I, III &amp; V composites* (one surface)</td>
<td>no</td>
<td>$</td>
</tr>
<tr>
<td>2331</td>
<td>Restorative</td>
<td>Therapeutic pulpotomy (excluding final restoration)</td>
<td>conditional</td>
<td>$$$</td>
</tr>
<tr>
<td>2392</td>
<td>Restorative</td>
<td>Access, preparation including enlargement, debridement, and cleaning and disinfection after endodontic instrumentation — endo anterior (excluding final restoration)</td>
<td>yes</td>
<td>$$$</td>
</tr>
<tr>
<td>2390</td>
<td>Restorative</td>
<td>Access, preparation including enlargement, debridement, and cleaning and disinfection after endodontic instrumentation — endo bicuspid (first root)</td>
<td>yes</td>
<td>$$$</td>
</tr>
<tr>
<td>2389</td>
<td>Restorative</td>
<td>Access, preparation including enlargement, debridement, and cleaning and disinfection after endodontic instrumentation — endo molar (excluding final restoration)</td>
<td>yes</td>
<td>$$$</td>
</tr>
<tr>
<td>3410</td>
<td>Endodontics</td>
<td>Incision of soft tissue and cutting bone to prepare access to the apex — apicoectomy/ periapical surgery anterior</td>
<td>yes</td>
<td>$$$</td>
</tr>
<tr>
<td>3421</td>
<td>Endodontics</td>
<td>Incision of soft tissue and cutting bone to prepare access to the apex — apicoectomy/ periapical surgery bicuspid (first root)</td>
<td>yes</td>
<td>$$$</td>
</tr>
<tr>
<td>3425</td>
<td>Endodontics</td>
<td>Incision of soft tissue and cutting bone to prepare access to the apex — apicoectomy/ periapical surgery molar (first root)</td>
<td>yes</td>
<td>$$$</td>
</tr>
<tr>
<td>3426</td>
<td>Endodontics</td>
<td>Incision of soft tissue and cutting bone to prepare access to the apex — apicoectomy/ periapical surgery (each additional root)</td>
<td>yes</td>
<td>$</td>
</tr>
<tr>
<td>3430</td>
<td>Endodontics</td>
<td>Root end preparation for retrograde filling</td>
<td>yes</td>
<td>$$</td>
</tr>
<tr>
<td>3450</td>
<td>Endodontics</td>
<td>Root amputation (per root)</td>
<td>yes</td>
<td>$$</td>
</tr>
</tbody>
</table>

*2011 National Dental Advisory Service® Comprehensive Fee Report
<table>
<thead>
<tr>
<th>Code</th>
<th>Service Description</th>
<th>Notes</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>4210</td>
<td>Periodontics Incision, excision, vaporization, ablation, hemostasis and coagulation of oral soft tissues – gingivectomy (soft tissue only) 4 or more teeth per quadrant</td>
<td>topical</td>
<td>$$</td>
</tr>
<tr>
<td>4211</td>
<td>Periodontics Gingivectomy (soft tissue only), 1-3 teeth per quadrant</td>
<td>topical</td>
<td>$</td>
</tr>
<tr>
<td>4230</td>
<td>Periodontics Anatomical crown exposure, 4 or more teeth per quadrant</td>
<td>yes</td>
<td>$$</td>
</tr>
<tr>
<td>4231</td>
<td>Periodontics Anatomical crown exposure, 1-3 teeth per quadrant</td>
<td>yes</td>
<td>$$</td>
</tr>
<tr>
<td>4240</td>
<td>Periodontics Gingival flap procedure including root planing soft tissue only, 4 or more teeth per quadrant (site-specific period)</td>
<td>yes</td>
<td>$$$</td>
</tr>
<tr>
<td>4241</td>
<td>Periodontics Gingival flap procedure including root planing soft tissue only 1-3 teeth per quadrant (site-specific period)</td>
<td>yes</td>
<td>$</td>
</tr>
<tr>
<td>4249</td>
<td>Periodontics Clinical crown lengthening – hard tissue per tooth</td>
<td>topical</td>
<td>$$$</td>
</tr>
<tr>
<td>4355</td>
<td>Periodontics Removal of diseased, infected, inflamed, or necrosed soft tissue in the periodontal pocket to improve clinical indices including gingival index, gingival bleeding index, probe depth, attachment loss, and tooth mobility – full mouth debridement to enable comprehensive evaluation and diagnosis</td>
<td>conditional</td>
<td>$</td>
</tr>
<tr>
<td>4260</td>
<td>Periodontics Cutting, shaving, contouring, and resection of oral osseous tissues, osteoplasty, and removal of bone to correct osseous defects and create physiologic osseous contours, resection of bone to restore bony architecture (ostectomy), resection of bone for grafting, etc. – osseous surgery 4 or more teeth per quadrant</td>
<td>yes</td>
<td>$$$</td>
</tr>
<tr>
<td>4261</td>
<td>Periodontics Osseous surgery, 1 - 3 teeth per quadrant</td>
<td>yes</td>
<td>$$$</td>
</tr>
<tr>
<td>4263</td>
<td>Periodontics Bone replacement graft, first site in quadrant</td>
<td>yes</td>
<td>$$$</td>
</tr>
<tr>
<td>4264</td>
<td>Periodontics Bone replacement graft, each additional site in quadrant</td>
<td>yes</td>
<td>$$</td>
</tr>
<tr>
<td>4381</td>
<td>Periodontics WaterLase Er,Cr:YSGG cementum-mediated periodontal ligament new attachment to the root surface in the absence of long junctional epithelium, removal of subgingival calculi in periodontal pockets with periodontitis by closed or open curettage, removal of highly inflamed edematous tissue affected by bacteria penetration of the pocket lining and junctional epithelium – localized delivery of chemotherapeutic agents per tooth by report</td>
<td>no</td>
<td>$</td>
</tr>
<tr>
<td>6010</td>
<td>Implant Gingival incision and excision – surgical placement of implant body: endosteal implant</td>
<td>topical</td>
<td>$$$</td>
</tr>
<tr>
<td>6020</td>
<td>Implant Implant recovery – abutment placement or substitution: endosteal implant</td>
<td>topical</td>
<td>$$$</td>
</tr>
<tr>
<td>7280</td>
<td>Periodontics Surgical access of an unerupted tooth</td>
<td>topical</td>
<td>$$</td>
</tr>
<tr>
<td>7286</td>
<td>Periodontics Biopsy of oral tissue – soft</td>
<td>topical</td>
<td>$$</td>
</tr>
<tr>
<td>7291</td>
<td>Periodontics Transseptal fiberotomy/supracrestal fiberotomy</td>
<td>yes</td>
<td>$$</td>
</tr>
<tr>
<td>7465</td>
<td>Surgical Destruction of lesion(s) by physical or chemical method</td>
<td>yes</td>
<td>$$</td>
</tr>
<tr>
<td>7471</td>
<td>Surgical Removal of lateral exostosis (maxilla or mandible)</td>
<td>yes</td>
<td>$$</td>
</tr>
<tr>
<td>7472</td>
<td>Surgical Removal of torus palatinus</td>
<td>yes</td>
<td>$$$</td>
</tr>
<tr>
<td>7473</td>
<td>Surgical Removal of torus mandibularis</td>
<td>yes</td>
<td>$$$</td>
</tr>
<tr>
<td>7510</td>
<td>Surgical Incision and drainage of abscess – intraoral</td>
<td>yes</td>
<td>$</td>
</tr>
<tr>
<td>7511</td>
<td>Surgical Incision and drainage of abscess – intraoral, complicated</td>
<td>yes</td>
<td>$$</td>
</tr>
<tr>
<td>7960</td>
<td>Surgical Frenulectomy (frenectomy or frenotomy)</td>
<td>topical</td>
<td>$$</td>
</tr>
<tr>
<td>7971</td>
<td>Surgical Excision of pericoronal gingiva</td>
<td>topcial</td>
<td>$$</td>
</tr>
</tbody>
</table>

“Since purchasing my WaterLase, many people have asked me, ‘Are you making more money with it?’ ‘Does it cover your lease payments?’ The answer is yes, but it really doesn’t matter. The WaterLase has made me a better dentist in so many ways. No one ever asks if your dental chair makes you money – the reality is that you can’t practice the best dentistry without one.”

– Dr. David Greene
New York, NY
WHAT IS WATERLASE?

From 5 to 100 pulses of YSGG laser energy are emitted per second from the tip of the handpiece along with a fine water spray. Laser photons energize water molecules within the target tissue and from the spray on the tissue surface. Energized water molecules vaporize, causing a biological and cool ablation of hard and soft tissue.
It is widely accepted that tooth pain is caused when a stimulus applied to dentin is transmitted to nerves inside the tooth through fluid in dentinal tubules.

The heat, vibration, and pressure of the drill trigger pain impulses through this fluid. According to one mechanism related to pain transmission that has been reported in the literature, WaterLase may prevent pain transmission — without anesthetic or needles — by dehydrating tubule fluid, leaving insoluble salts in the tubule that block pain transmission to the nerves.

WaterLase may also eliminate pain by the same mechanism of action currently accepted for how Low-Level Laser Therapy desensitizes — by interfering with nerve cell membrane polarity to block transmission of pain stimuli.

“It’s a fact — I will never consider going to a non-WaterLase dentist again. The laser procedure was fast, easy, painless, and the best thing that’s ever happened to my teeth!”

— A. M., WaterLase Patient
Houston, TX

WATERLASE ELIMINATES PAIN IN MOST CASES.
The potential for cross-contamination between patients in the dental operatory is a real and widely documented risk. Burs and files are manufactured and FDA-approved only for single use on patients. Research shows that burs and endodontic files cannot be properly sterilized for re-use. Patients are becoming knowledgeable about the dangers of cross-contamination. Using WaterLase as directed can greatly reduce or even eliminate this risk. Don’t be left behind. Project yourself into the future of advanced dental care.

BURS AND ENDO FILES PRESENT A HIGH CROSS-CONTAMINATION RISK.

- 15-30% of “sterilized” burs and up to 76% of “sterilized” endodontic files carry pathogenic micro-organisms
- Complex bur surfaces are difficult to clean
- Autoclaving fails to completely decontaminate burs

BACTERIA FOUND ON “STERILIZED” BURS AND ENDO Files

- Streptococcus
- S. mutans
- S. sanguis
- S. milleri
- Anaerobic streptococci
- Lactobacillus spp.
- Gemella
- G. morbillorum
- Staphylococcus spp.
- Coagulase-negative staphylococci
- Corynebacteria spp.
- Actinomyces spp.
- Aerococcus viridans
- Enterococcus avium
- Stomatococcus mucilaginosus
- Black-pigmented anaerobes
- Prevotella spp.
- Porphyromonas spp.
- Veillonella spp.
- Candida
- C. albicans

*When comparing WaterLase single-use tips to re-use of burs with the high speed
WATERLASE IS A CLEANER, SAFER DENTAL INSTRUMENT.

- Flawless tip surfaces do not harbor debris or bacteria like abrasive surface of burs or files
- The WaterLase YSGG laser is FDA INDICATED FOR DISINFECTION of the root canal after instrumentation
- Works without contact to tooth or tissue
- Single-use, disposable tips eliminates accidental "sticks" — possible while handling contaminated burs


The WaterLase iPlus™ intuitive graphical user interface puts dozens of laser-assisted clinical procedures at your finger tips — no settings to program, no tip guides to consult. Everything is pre-programmed and simple to use.

Plus, it’s fast. A few touches of the screen and the iPlus is ready to go to work in seconds, which is great for boosting your productivity.

“The WaterLase has allowed me to enhance my practice of ‘bread and butter dentistry,’ perform procedures that I never would have done as a general dentist, and most importantly, keeps my dental spirit fresh and excited on a daily basis.”

— Dr. Christina Do
General Dentist
Costa Mesa, CA
QUICK TO LEARN. 56 PROCEDURES AS EASY AS…

1. Select “Restorative” from the first screen

2. Choose “Class I” from the next screen

3. Specify any other options such as patient sensitivity or bond strength

GO!
“The WaterLase is our workhorse. I cannot overstate the advantage of their use in preparations on primary teeth without local anesthesia. This feature alone transformed my enthusiasm for pediatric dentistry.”

– Dr. Betty Barr
Pediatric Dentist, Westminster, CO

“WaterLase may be the missing link that enables us to kill bacteria deep within the dentinal tubules. In our practice, we no longer aim to “entomb” bacteria but rather to eliminate bacteria.”

– Dr. Justin Kolnick
Endodontist, White Plains, NY
POCKET THERAPY
OPEN OR CLOSED FLAP

OSSEOUS CROWN LENGTHENING OPEN/CLOSED

IMPLANT RECOVERY

TROUGHING

LASER BANDAGE
“With my seventh year of using a WaterLase, I have long realized that I could not exist in dentistry without it. I presently use it in all phases of dentistry – crown and bridge, fillings, endodontics, periodontics, oral surgery, implantology, and orthodontics. I changed the name of my clinic to Aesthetic Laser Dentistry because of this one device called the WaterLase.”

– Dr. John Hendy
Grants Pass, OR
iPLUS™ GIVES YOU A HIGHLY EFFECTIVE NEW TREATMENT FOR PERIODONTAL DISEASE.
Deep Pocket Therapy (DPT) with New Attachment™ using the WaterLase iPlus laser and BIOLASE patented Radial Firing Perio Tip™ (RFPT) is a minimally invasive, FDA-cleared therapy for moderate to advanced gum disease that promotes cementum-mediated periodontal ligament new-attachment to the root surface in the absence of long junctional epithelium, and subgingival calculus removal. Published data indicate that YSGG minimally invasive surgical periodontal laser therapy using the WaterLase “led to significant improvements” in bleeding on probing, probing depth, and “appeared to be advantageous when compared to SRP alone, due to more efficient attachment level restoration.”

PERIODONTAL TREATMENT USING THE ER,Cr:YSGG LASER.

CASE 1
Example of minimally invasive Deep Pocket Therapy utilizing the WaterLase MD™.

CASE 2
Post-op histology of a Site-Specific Perio (SSP) treatment utilizing the Er,Cr:YSGG WaterLase MD laser. Courtesy of Andreas Moritz, MD, DDS, PhD, Dental School, Medical University of Vienna

“As a Periodontist, I have been waiting to buy a laser until there was a reliable one that could address hard and soft tissues safely and efficiently. The WaterLase has now become my ‘instrument’ of choice in many procedures, including ones that I didn’t think could or should be performed with a laser. I liked my first WaterLase so much that I recently upgraded to the new iPlus, and it’s awesome!”

– Beth Gold
Periodontist
Marysville, WA

“’This not only enhances results in the hands of a periodontist using the WaterLase for regenerative procedures, it is also an alternative treatment for the general dentist who is treating mild to moderate periodontal cases. Patients are also more likely to accept treatment when they hear that it is minimally invasive, and patients who have accepted treatment are getting positive results and avoiding the side effects that they have heard about from conventional treatment.’”

– Dr. Michael Schlesinger, Periodontist, New York, NY
iPLUS™ PROVIDES SUPERIOR DISINFECTION OF THE ROOT CANAL.

The smear layer remaining after rotary or hand instrumentation not only contains infected tissue, but can seal infection within dentinal tubules. Scanning Electron Microscopy shows how treatment with WaterLase MD™ Radial Firing Tips leaves canal walls free of smear layer and opens dental tubules, allowing YSGG laser energy to penetrate and destroy bacteria.

EFFECTIVE ON THE HIGHLY RESISTANT ENTEROCOCCUS FAECALIS – TO REDUCE RETREATMENT RISK.

Why do treatments fail even when all canals are located, and cleaning and enlargement is successful? Research has shown that most root canal treatment failures are caused by persistent or secondary intraradicular infections, with E. Faecalis, the most prevalent species. WaterLase YSGG treatment may significantly reduce the risk of retreatment.

Mean Bacteria CFU’s (Colony Forming Units) of E. Faecalis Remaining After Treatment as Percentage of Positive Control Mean

Sodium Hypochlorite (NaOCl) 0.83% CFU

WaterLase® 0.29% CFU

*WaterLase® reduced E. Faecalis 2.86 times more effectively than NaOCl.

The smaller the mean percentage, the greater the reduction in E. Faecalis.
ENDOLASE ROOT CANAL THERAPY IS SIMPLE, EFFICIENT, AND EFFECTIVE.

STEP 1 | Access Preparation

STEP 2 | Conventional Instrumentation

STEP 3 | Cleaning & Enlargement

STEP 4 | Disinfection

“WaterLase RFT has revolutionized our practice of endodontology. For the first time we are within reach of sterilizing an infected root canal system – unheard of in the specialty of endodontology!

- Dr. Justin Kolnick
Endodontist
White Plains, NY
The iPlus features the only illuminated contra-angle handpiece on any dental laser. BIOLASE’s patented contra-angle design allows you to easily and precisely move the laser tip around the treatment site, while iPlus illumination provides the best visibility.

The iPlus handpiece is also the smallest handpiece, an important consideration for pediatric patients and working in the back of the mouth.

The WaterLase Contra-Angle Handpiece is the sleekest and most ergonomic of any dental laser.

All BIOLASE Gold and Turbo handpieces are compatible with the iPlus.
“I have been ecstatically pleased since taking ownership of the new WaterLase iPlus. Its versatility is fabulous, and its potential is unchecked in my opinion.”

– Dr. Lon Lawrenz
Tempe, AZ
THE WIDEST SELECTION OF TIPS, ACCESSORIES AND UPGRADES OF ANY DENTAL LASER – FOR THE GREATEST VERSATILITY.

The WaterLase iPlus™ offers the widest variety of tips of any dental laser, to give you precisely the results you want in any procedure. Each tip is specially engineered and clinically tested to deliver the optimal laser energy to the treatment site. BIOLASE is continually designing new, more effective tips to meet the needs of our owners and improve the performance of our laser systems.

“It is hard to imagine where my practice would be without my WaterLase. In the past 18 months we have continued to add techniques and procedures with the laser that have improved patient comfort and have delivered treatment that before was hardly imaginable.”

– Dr. Todd Morton, Ballwin, MO
WATERLASE TIPS ARE DESIGNED TO CUT FASTER

- With higher power levels, the laser can be spread over a wider surface area
- Results in faster cutting and consistent width and depth
- Laser-cutting technique and appearance resembles cutting with a high-speed drill, without lateral cutting

INSTANT, EASY ACCESS TO ALL YOUR IPLUS NEEDS
You will find a complete selection of WaterLase iPlus laser system tips, accessories, upgrades, extended warranties, and more – available 24/7 at the BIOLASEstore.com.
iLASE™ ON BOARD FOR DUAL WAVELENGTH CONVENIENCE AND VERSATILITY.
The iPlus™ is a superior soft-tissue laser. Even so, sometimes it’s just more convenient to pick up the completely wireless iLase diode soft-tissue laser when you just need to perform a quick, minor soft-tissue procedure.

The first totally wireless dental laser, the iLase uses finger switch activation instead of a foot pedal.

With 5W of peak power, the iLase is great for basic soft-tissue procedures. For optimum efficiency, recommended values for power and pulse mode are factory installed for 10 common soft-tissue procedures.

**WHY 940NM IS A SUPERIOR WAVELENGTH**

While all diode lasers use heat to cut, many increase tissue temperature excessively, causing patient discomfort. The 940 nm wavelength, developed exclusively for dentistry by BIOLASE, is better absorbed by hemoglobin and oxyhemoglobin than other wavelengths, so the iLase cuts faster at lower power with less heat, for greater patient comfort.

**EXCLUSIVE COMFORTPULSE™ FOR OPTIMUM PATIENT COMFORT AND SPEED**

BIOLASE soft-tissue lasers keep patients more comfortable a second unique way. An exclusive BIOLASE feature called ComfortPulse™ lets you significantly reduce the amount of time the laser is actually cutting, to avoid pain-inducing heat buildup at the surgical site. This unique combination of features means you can perform most soft-tissue procedures with the iLase using topical anesthetic only.

**EzTips™**

BIOLASE soft-tissue lasers offer the most precise control of tissue cutting for different procedures and tissue biotypes, with the widest selection of tip lengths and diameters. Bendable EzTips™ provide better access to all areas, and are single-use and disposable for quick, convenient treatment, and reduce risk of cross-contamination. You can purchase ezLase and iLase diode lasers online at www.BIOLASEStore.com.
BIOLASE MAKES IT SIMPLE TO INTEGRATE THE WATERLASE iPLUS™ INTO YOUR PRACTICE.

BIOLASE has collaborated with leading dental practice consultants, such as The Levin Group, to create a highly effective practice integration program available at no cost with every WaterLase iPlus, that assures your practice successfully integrates WaterLase technology.

MARKETING SUPPORT TO SET YOUR PRACTICE APART FROM ALL OF THE REST.

The dramatic benefits that patients see in WaterLase Dentistry™ are a powerful way to set your practice apart from others, to attract new patients, and grow your practice. To help market the WaterLase in your practice, BIOLASE provides a wide array of marketing materials and messages designed for a variety of different practices, from press releases to patient brochures.

“The laser sets my practice apart! I enjoy being able to inform anxious parents I have an option for their child’s dental treatment that does not involve shots.”

Dr. Karen Foster
Pediatric Dentist
Aurora, CO
THE BEST SERVICE AND SUPPORT IN LASER DENTISTRY

You can rely on your BIOLASE laser system to provide your patients with the highest level of comfort and clinical care, because you can count on us to keep it performing properly.

We have the largest, most experienced team of Field Service Engineers in dental lasers, a laser Service & Support Hotline at 800-321-6717, and dedicated inside service engineers expert in remote troubleshooting.

“BIOLASE as a company to work with has been nothing short of phenomenal. Whenever we’ve had any kind of technical issues or service issues, they’re Johnny-on-the-spot, getting things taken care of, shipping things out immediately, no questions asked, just get the job done.”

– Dr. Craig Rubinoff
Periodontist
Rancho Bernardo, CA
THE TECHNOLOGY BEHIND iPLUS™ PRECISION, PERFORMANCE, AND RELIABILITY.

Revolutionary patented RR™ Laser Pump Chamber technology – 3 years in development – doubles pulse energy and pulse rate and is designed for increased reliability and lifetime.

Faster microprocessor, Windows®-based operating system and software.
Lightest, most flexible trunk fiber provides unmatched handpiece control and access, reduces hand fatigue.

Dual-stage centrifugal air-filtration system removes all oil and moisture from incoming air used in air-water spray.

Patented, exclusive laser-based water-level sensor automatically detects “full,” “low-level,” “empty,” and “no bottle” water states.

High-frequency water-control valve maintains precise air-water mixture.

Patented BIOLASE exclusive dual power supply supports separate hard-tissue and soft-tissue cutting modes.

Air dryer helps maintain 100% laser efficiency even in tropical high-humidity environments.

Ultra high-strength aluminum-magnesium alloy chassis manufactured by same foundry as top-of-the-line Mercedes Benz® engine blocks.

Most intuitive and intelligent Graphical User Interface of any dental laser gives you instant access to 56 pre-programmed procedures via a large touchscreen.

Exclusive Contra-Angle Handpiece, provides excellent visibility at treatment site with ultra-white, shadow-free LED illumination, and rotates 360° for optimal access and comfort.
DUAL-WAVELENGTH WATERLASE iPLUS™
ALL-TISSUE LASER SYSTEM OPTIONS
AND SPECIFICATIONS

MAKE A FASHION STATEMENT WITH YOUR iPLUS
It’s fashionable to be high tech! Patients recognize and value your investment in technology that improves their treatment experience and results. A WaterLase iPlus lets you make a bold statement that patients can’t miss.

TOTAL TECHNOLOGY SOLUTIONS FROM DIAGNOSTICS TO TREATMENT DELIVERY
Integrating laser technology in thousands of dental practices has made us experts in technology training, service and support, practice integration, return on investment—everything you need to successfully add any technology to your practice. Now we are expanding our technology offerings to digital imaging and other technologies, as well.
**WaterLase iPlus™**
- Wavelength: Er:Cr:YSGG (2,780 nm)
- Diode (940 nm)
- iLase™ Charging Slots: 2
- Max Output Power: 10W
- Max Pulse Energy: 600 mJ
- Pulse Rep Rate: 5 to 100 Hz
- Pulse Duration: H: 60 μsec S:700 μsec

**iLase™ 940 Diode Laser**
- Length: 7.2 in. (183 mm), battery attached
- Diameter: 0.74 in. (18.7 mm)
- Weight: 0.22 lb (98 g), with battery attached
- Wavelength: 940 ± 15 nm
- Max Peak Output Power: 5W
- Max Continuous Wave-Output Power: 3W
- 3 Power Modes: Continuous Wave, ComfortPulse™ 1, ComfortPulse™ 2
- Battery Power: Single, rechargeable Li-Ion assembly; 3.7 VDC, 650 mA-h
- Presets: 10 factory-loaded and user-customizable, 2 extra user-customizable

Specifications subject to change without notice.

---

**Dimensions**
- 11.0 in. 27.9 cm
- 18.9 in. 48.0 cm
- 35.5 in. 90.2 cm
- 53.3 in. 135.4 cm
- 33.5 in. 85.1 cm

---

**Contact Information**
(949) 361-1200
Irvine, CA. 92618
4 Cromwell
WATERLASE iPLUS™

CLINICAL BIBLIOGRAPHY

Er,Cr:YSGG


WaterLase Periodontal Therapy


**WaterLase Endodontic Therapy**


3. The use of the erbium, chromium: yttrium-scandium-gallium-garnet laser in endodontic treatment. The results of an in vitro study: Ulrich Schoop, DDS, MD, Kawe Goharkhay, DMD, MD, Johannes Klímscha, DMD, MD, Manuela Zagler, DMD, Johann Wernisch, TD, PhD, Apostolos Georgopoulos, MD, PhD, Wolfgang Sperr, DDS, MD, PhD, and Andreas Moritz, DMD, MD, PhD, JADA 2007; 138(7): 949-955.

**Implants**


**Reducing Cross-Contamination**


**Reducing Pain**


**Er,Cr:YSGG vs. Er:YAG**


BIOLASE Technology is revolutionizing surgery in dentistry and medicine, specializing in the development, manufacturing, and marketing of lasers and related products to provide biological treatments that eliminate pain and are safer for patients.

**Industry Leading Technology**
We design and manufacture nearly 100% of our systems, components, and subassemblies at our headquarters in Irvine, California, which also houses engineering, clinical R&D, customer care, training, sales and marketing, and administrative. BIOLASE is ISO 9001 certified and FDA GMP with clean room operations. We also have manufacturing capabilities in Floss, Germany.

**Clinical R&D**
Our highly skilled R&D team has extensive medical device and laser development expertise, focused on improving and extending our dental and medical product portfolio into the future.

**Training & Certification**
We are a leader in laser education through the World Clinical Laser Institute. With more than 10,000 members worldwide, the WCLI is the world’s largest laser education organization. Certification Training Courses combining lectures, hands-on exercises, and/or live patient demonstrations may be included with the purchase of your WaterLase iPlus™ laser system.

**Service & Support**
We have the largest, most experienced team of Field Service Engineers in dental technology, a Service & Support Hotline at 800-321-6717, and dedicated inside service engineers expert in remote troubleshooting.

**Practice Integration**
We help you fully incorporate WaterLase technology in your practice – from staff training to practice marketing support.