



YSGG
Waterlase **MD**



BIOLASE





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Waterlase MD



The Next Generation of Dentistry is Here.



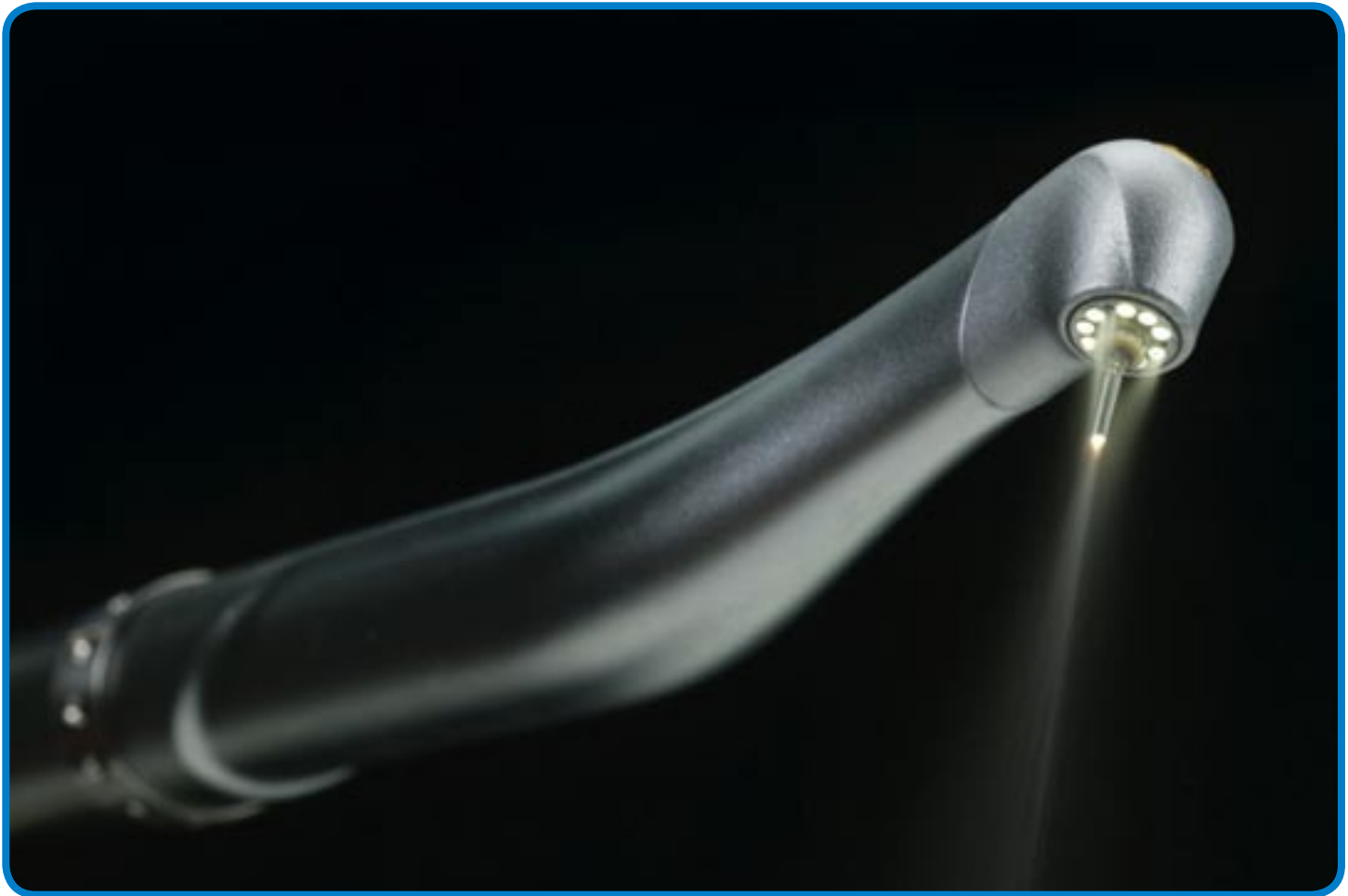
Introducing the Waterlase[®] MD

The Waterlase[®] MD features an all-new MD laser technology platform that heralds the next generation of dentistry with superior clinical outcomes and a more pleasant patient experience for many dental procedures. The Waterlase MD incorporates an extraordinary set of innovative new features, as well as many features requested by laser owners from around

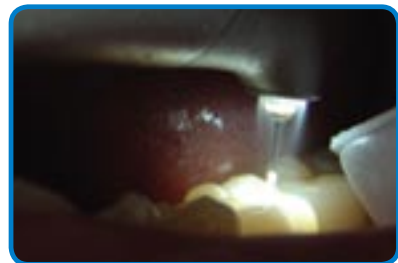
the world. The Waterlase MD also utilizes an all-new chassis that contains components, materials and design technology from the same creative minds that put high-performance luxury automobiles on the road (Mercedes Benz-AMG), and NASA's rockets into orbit (Northrup Grumman).



YSGG Waterlase MD



Featuring the most advanced, state-of-the-art design ever introduced in laser dentistry, the Waterlase® MD's handpiece is built using aerospace materials for extreme durability and complete comfort. The all-new HydroBeam™ handpiece is a 360° fully rotating instrument with exclusive contra-angle design and an ultra-low-mass head for maximum visibility in the surgical field. Plus, laser dentists can take advantage of an exclusive ultra-white, shadow-free LED illumination system.



The Waterlase® MD's exclusive new HydroBeam™ handpiece features state-of-the-art LED technology for ultra-white, shadow-free illumination.



The HydroBeam™ Illuminated Handpiece.

“Consistent results,
ease of use, excellent
patient care -the new
Waterlase MD has it all.”

HydroBeam™ Features

Ultra-white, shadow-free illumination from the handpiece based on cutting-edge, bulb-free LED light technology — a first for dental lasers. This new feature significantly enhances visibility in the surgical field

Contra-angle, 360° rotatable handpiece for supreme comfort and easier access to all areas of the oral cavity

ComfortJet™ air/water delivery system for maximum patient comfort, enhanced visibility for the clinician and improved clinical results

Advanced materials and components based on NASA and aerospace technology for improved reliability and ergonomics

Ultra low-mass handpiece head design, greatly maximizing visibility and access

“The Waterlase MD’s new contra-angle, illumination handpiece and touch screen panel are major advancements for laser dentistry. Consistent results, ease of use, excellent patient care - the new Waterlase MD has it all. This laser enables me to provide a wide range of dental procedures at the level my patients have come to expect. Incorporating the Waterlase MD has re-energized my practice, my patients, and it has brought a new level of excitement to practicing dentistry.”

Michael Koceja, DDS

Private Practice • San Marcos, California



YSGG *Waterlase* MD



The Waterlase® MD features a dazzling, new high-resolution control system, using Windows® CE with intelligent touch-screen navigation for complete on-the-fly control. The SensaTouch™ Control System contains 16 factory-loaded pre-sets ideal for new laser owners, with complete customizability for experienced laser dentists.



SensaTouch™ uses high-resolution screens to adjust aiming beam intensity, handpiece illumination intensity, air/water spray, and much more.

The SensaTouch™ Laser Control System.

“I cannot think of any objection or rationale that isn’t completely addressed by the new features of this laser.”

SensaTouch™ Features

10 to 50 hz. selectable pulse repetition rate for expanded versatility across all tissue types

Touch-screen control system features Windows® CE

Unique, selectable pulse modes for hard and soft tissue, with enhanced coagulation capabilities

0.1 to 8.0 watts of power for precise, rapid tissue ablation

16 optimized, factory-loaded pre-sets for new users and completely customizable for experienced laser dentists



“The suite of new features that have not previously been available on any other laser gives me a degree of control to cut tissue far more effectively and precisely than ever before. After using the Waterlase MD, I cannot think of any objection or rationale that isn’t completely addressed by the new features of this laser.”

James Jesse, DDS

Private Practice • Loma Linda, California



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"I am grateful that our family dentist is using lasers,
which makes dentistry exciting for my kids."

J. Rossiter



Soft Tissue Procedures

Gingivectomy & Frenectomy

Dr. Kenneth Canzoneri
Private Practice • Arcadia, CA



PRE-OP
A patient presented with an excessively thick frenum which was causing recession. Plus, the patient also requested that their anterior teeth appear longer and more natural.



INTRA-OP
The Waterlase MD is a versatile instrument, and can sculpt and shape soft tissue and perform bloodless frenectomies with no anesthetic.



ONE-WEEK POST-OP
One week after treatment, the surgical sites have healed without incident and the patient's anterior teeth are visibly more aesthetic.

Incision, excision, vaporization, ablation and coagulation of oral soft tissues
Excisional and incisional biopsies
Exposure of unerupted teeth
Fibroma removal
Flap preparation – incision of soft tissue to prepare a flap and expose the bone.
Frenectomy and frenotomy
Gingival troughing for crown impressions
Gingivectomy
Hemostasis
Implant recovery
Incision and drainage of abscesses
Operculectomy
Pulpotomy
Pulp extirpation

Pulpotomy as an adjunct to root canal therapy
Root canal debridement and cleaning
Removal of pathological tissues from around the apex
Soft tissue crown lengthening
Sulcular debridement
Treatment of canker sores, herpetic and aphthous ulcers of the oral mucosa
Vestibuloplasty
Flap preparation -- incision of soft tissue to prepare a flap and expose unerupted teeth (hard and soft tissue impactions)
Removal of granulation tissue from bony defects
Laser soft tissue curettage

Additional Soft Tissue Procedures



Lingual Frenectomy



Fibroma Removal



Implant Exposure



Gingivectomy



“When I first tried the Waterlase, it blew me away; I couldn't believe what I saw. For the first time, I was using a product that actually did what its manufacturer claimed. It's easy to quantify what the YSGG laser has done for my business: referrals have shot way up, production is through the roof, and I am doing a wider range of procedures than ever before.”

Christopher Walinski, DDS

Private Practice • Fall River, Massachusetts



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"My last visit to the dentist was a delight! It was the most pain-free dental experience I've had in a dental chair."

J. Willis

Hard Tissue Procedures

Class I Cavity Prep

Dr. Mark Colonna
Private Practice • Whitefish, Mont.



PRE-OP
Decay is present on the mesio-occlusal surface of #14. Case:



INTRAOP
The Waterlase MD allows for precise cavity preps with no pain, needles or drills (in most cases). Plus, you'll remove minimal amounts of tissue, helping the patient to preserve as much tooth structure as possible.



POST-OP
The composite restoration is placed within minutes of the procedure beginning, and the patient was sent on their way with no discomfort or no numb lip.

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

Osseous crown lengthening

Cutting, shaving, contouring and resection of oral osseous tissues

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)

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.

Tooth preparation to obtain access to root canal

Root canal preparation including enlargement

Root canal debridement and cleaning

Additional Hard Tissue & Bone Procedures



Resection of Bone for Grafting



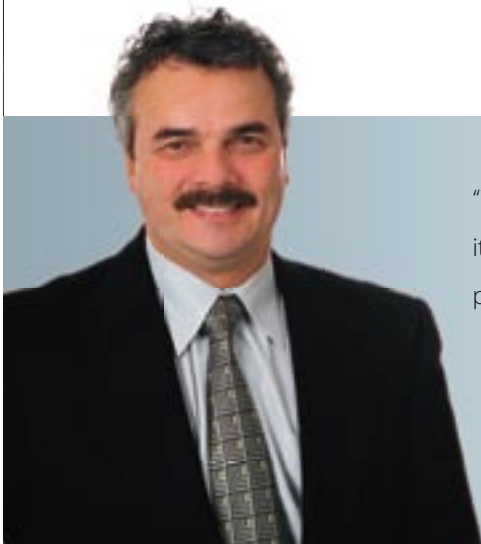
Class II Cavity Prep



Osseous Recontouring



Osseous Crown Lengthening



“The Waterlase is a remarkable tool in my practice. Time and time again, I’ve been so impressed with its clinical capabilities from cutting soft tissue, enamel - even bone. The results are excellent for the patient, and my patients have never been happier.”

David Eshom, DDS

Private Practice • La Jolla, California



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"I'm not worried about the dentist anymore! The Waterlase has
stripped away the fear I've had my whole life..."

J. Rego



Specialty Procedures

Osseous Crown Lengthening

When it comes to a procedure like osseous crown lengthening, the Waterlase® MD excels. Because it cuts soft tissue, hard tissue and bone, you can use a single instrument to create the biologic width necessary for problem-free aesthetic restorations.



Pre-op view, no biologic width for crowns



Trough soft tissue, shaving osseous tissue



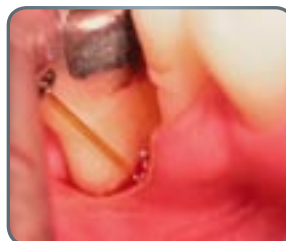
Immediately post-op, temporaries in place

Laser Curettage & Perio Therapy

The Waterlase® MD is FDA cleared for all major steps of periodontal therapy, including laser curettage, sulcular debridement, removal of pathological tissue, and many other procedures. Better yet, Waterlase MD therapy is faster and easier on your patients.



Pus oozing from the pocket on no. 31.



Laser curettage performed



Immediately post-op, the pustule has been removed and the pocket debrided

Oral Surgery & Implants

Whether you are harvesting block graft tissue or creating a pilot hole for an implant, the Waterlase® MD is a highly capable, atraumatic instrument for oral surgeons and implant dentists.



Pre-op view.



After laying a bloodless full-thickness flap, the block grafts are excised.



The donor tissue is harvested, leaving the periosteum intact and unaffected.

Root Canal Therapy & Laser Endo

The Waterlase® MD performs all steps of endo, including pulp therapy, canal access, enlargement and debridement. Plus, the Waterlase MD is even cleared for apicoectomy.



The pulp chamber and root system is accessed.



Shaping and debriding the canal.



Prior to obturation, the integrity of the laser-shaped canal is tested with a #15 K file



"After comparing conventional techniques and new laser techniques through a surgical microscope, there is no comparison. The Waterlase, in my opinion, when used as an adjunct to traditional endodontic methods, maximizes the chance for success and survival of the tooth."

David Browdy, DMD

Private Endodontic Practice • Lynbrook, New York

The MD Technology Platform

The Waterlase MD is loaded with patented, proprietary features that are firsts in laser dentistry. Built on BIOLASE's exclusive new MD laser technology platform, the unit has many features requested by laser owners from around the world, and innovative new features designed to simplify laser dentistry for beginners, and maximize the experience for veteran users.

Technical Specifications

Wavelength:	Er,Cr ³⁺ :YSGG, 2780 nm
Power:	0.1 to 8.0W
Repetition Rate:	10 to 50 Hz
Pulse Energy:	300 mJ
Laser Classification:	IV
Operating Voltage:	100-230 VAC
Dimensions:	10.5 x 19 x 32 in
Weight:	75lbs

Related Patents: 6,567,582; 6,561,803; 6,389,193; 6,350,123; 6,288,499; 6,231,567; 6,086,367; 5,885,082; 5,785,521; 5,761,501; 5,741,247; 5,194,005; 5,020,995; 4,818,230 4,940,411; 5,055,048; 5,122,060; 5,123,845 5,232,367; 5,257,935; 5,342,198
Additional patents pending

Exclusive **telescopic fiber management system** improves the laser fiber's reach and intuitively follows the clinician's movement.

Exclusive **snap-and-go water cartridge system** for on-the-fly replenishment

MDFlow™ water-level laser sensor that alerts the operator when the snap-in water system needs replenishment.

Laser Operatory Management System with storage racks for power cables and air lines — even a storage rack for your foot pedal.

Hinged access door for fast and easy access to system components.

Durable, casted metal foot pedal that mounts to the back of the Waterlase MD when not in use.

Heavy-duty casters designed for velvet-smooth movement from room to room.


Convenient **on-board storage wells** for laser tips, extra hand pieces, and other accessories

Unique **SensaTouch™** laser control system, with touch-screen, 16 pre-sets and on-board help.

Exclusive **HydroBeam™** contra-angle 360°, rotating handpiece with high-intensity LED illumination, and a unique, low-profile holder for safe storage.

Proprietary MD laser technology platform featuring exclusive unbody mounted optics in a durable, DSO-coated laser chamber

DANGER



VISIBLE and/or INVISIBLE LASER RADIATION. AVOID EYE OR SKIN EXPOSURE TO DIRECT OR SCATTERED RADIATION.

Er, Cr: YSGG, 300mJ, 10-50 Hz
2.78µm, 140µs, 700µs PULSE
Wavelength 630-655 nm, 1mW
CLASS IV LASER PRODUCT
IEC 825-1, 1993-11ed.
EYE PROTECTION REQUIRED

5200104 REVA



* Specifications subject to change without notice.

Your Complete Source for Dental Lasers

The Waterlase[®] MD is the new flagship of BIOLASE's proven line of laser products, which includes: the #1-selling Waterlase[®] YSGG all-tissue laser, the versatile LaserSmile[™] for soft tissue procedures and laser bleaching, and the DioLase[™] Plus entry-level diode cosmetic & hygiene laser.

Waterlase[®] MD



Waterlase[®]



LaserSmile[™]



DioLase[™] Plus



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BIOLASE[®]

Overview

BIOLASE Technology, Inc. is a dental technology company that designs, manufacturers and markets proprietary dental laser systems that allow dentists, oral surgeons and other specialists to perform a broad range of common dental procedures, including cosmetic applications.

The company's products incorporate patented and patent pending technologies focused on improving clinical results with minimal or no anesthetic. The Waterlase and Waterlase MD, the company's flagship products, use a patented combination of water and laser to precisely cut hard tissue, such as bone and teeth, and soft tissue, such as gums, with minimal or no damage to surrounding tissue.

The company also offers the LaserSmile soft tissue laser and whitening system, and the DioLase Plus cosmetic & hygiene laser.

History

In 1998, BIOLASE began the commercialization of its systems based on water and laser technology. The first laser equipped with this technology was known as the Millenium. Since then, the technology (also known as Hydrokinetics[™]) was introduced with the Waterlase[®] Laser and has become the #1 selling dental laser in the world.

Since 1998, BIOLASE has received numerous FDA clearances to market the Waterlase[®] system for a variety of dental applications. These clearances include, but are not limited to, root canal therapy procedures, contouring and resection of oral osseous tissues, and for use in apicoectomy surgery. Additionally, the Waterlase became the first hard tissue laser to receive clearance for laser soft tissue curettage.

BIOLASE has also received FDA clearance to market the LaserSmile[™] system for a variety of soft-tissue medical applications, cosmetic tooth whitening and periodontal procedures for both early and advanced stages of periodontal disease.

Whether you are interested in rejuvenating your practice, boosting your bottom line, or amazing your patients with state-of-the-art dentistry, BIOLASE offers a dental laser solution that can positively impact every area of your practice. Your patients want laser dentistry, your staff will appreciate how it improves your practice, and practicing dentistry will never be the same again.

For more information on BIOLASE Technology, Inc., please visit the website at www.biolase.com.

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