



Buffalo Niagara Dental Meeting

November 3, 2011



Experience Laser Utilization in Dental Hygiene *A Hands-on Workshop*

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 **ALD**
Academy of Laser Dentistry
www.LaserDentistry.org

Procedures and Applications Performed with a Soft Tissue Laser

Basic Functions of a Soft Tissue Laser

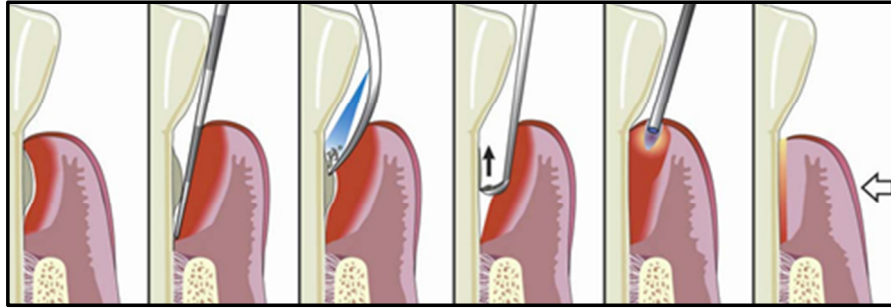
- Vaporize (Ablate) Soft Tissue
 - Incise Soft Tissue
 - Excise Soft Tissue
 - Ablate (Erase) Soft Tissue
- Photobiomodulate (Stimulate) Tissue Responses

A Partial List of Specific Procedures That Can be Performed with the Assistance of a Soft Tissue Laser

- Gingivectomy
- Gingivoplasty
- Gingival Troughing
- Periodontal Pocket Debridement Laser Therapy (PDLT)
- Biopsies
- Fibroma Removal
- Implant Uncovering
- Flap Surgery
- Soft Tissue Incisions
- Soft Tissue Excisions
- Destruction of Lesions
- Distal / Proximal Wedge
- Operculectomies
- Excision of Pericoronal Gingiva
- Soft Tissue Crown Lengthening
- Removal of Hyperplastic Tissue
- Exposure of Un-erupted Teeth
- Vestibuloplasty / Frenuloplasty
- Frenectomy / Frenotomy
- Incision and Drainage
- Assisting in Bleaching of Dentition

Laser Assisted Periodontal Care

Pocket Debridement Laser Therapy (PDLT)



Overview

When utilizing a laser in periodontal care the historical goals, principles of the causes, treatment, and management of periodontal disease, does not change. The primary goals in the treatment of periodontal disease are to:

- Debride and decontaminate the infected tissue of the periodontal structures
- Decrease the pathogenic bacteria in the periodontal pocket
- Arrest the progressive destruction of periodontal attachment
- Establish a periodontal architecture that can be properly maintained with adequate home care
- Create an environment to facilitate the regeneration of the lost periodontium, whenever possible.

The purpose of laser assisted periodontal care is to restore the periodontal health so that the diseased sulcular and pocket epithelium is eliminated and the pocket (intrasulcular) bacterial activities are minimized. When these goals are accomplished, pocket depths should be minimal and able to be maintained with proper routine homecare, bleeding on probing should be eliminated, and the apical migration of the epithelial attachment halted.

Treatment Considerations

Comprehensive examination and diagnostic procedures need to be performed to establish an accurate diagnosis of the periodontal status. Prudent clinical judgment is required and the practitioner and the patient need to have realistic expectations for the desired outcomes. Informed consent from the patient on the treatment objectives, prognosis and possibility of tooth loss should be established before any treatment is rendered.

The Role of the Laser in Laser Assisted Periodontal Care / Periodontal Pocket Debridement Laser Therapy (PDLT)

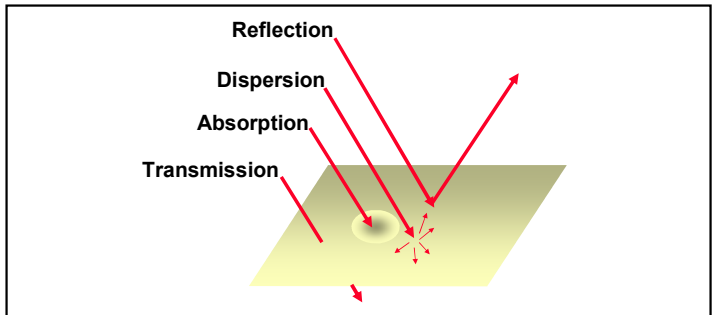
A soft tissue laser is an adjunctive device primarily used in closed subgingival instrumentation procedures without the displacement (flapping) of the gingiva. These procedures might include root planning and scaling, gingivoplasty, and gingivectomy or a combination of these procedures. The laser's role is not to replace any of the normal procedures or instrumentation, but is used in addition to the normal ultrasonic and hand instrumentation to obtain a better outcome. The laser's primary role is to reduce or eliminate the bacteria along with the diseased, inflamed, or inappropriate soft tissue in the periodontal pocket, and gingiva. This is accomplished by the clinician thoroughly applying photonic energy to the entire soft tissue lining of the periodontal pocket and the extra sulcular diseased epithelium where deemed necessary. The laser also plays a significant role in creating the proper environment for the establishment and organization of a sufficient and stable clot to promote healing. Initiating and maintaining this healing process is imperative in the re-establishment of the periodontal attachment architecture to the root structure of the tooth, thus minimizing pocket depths and to arresting the apical migration of the attachment.

Practitioners need to have a comprehensive understanding of the disease processes, the benefits and limitations of periodontal pocket debridement laser therapy (PDLT) and the present periodontal status of the patient as well as the patient's overall oral and systemic health. The clinician and patient need to understand and remember that periodontal pocket debridement laser therapy (PDLT) is only part of the comprehensive treatment regime, and care that is required to achieve successful outcomes.

Effects of Light Energy

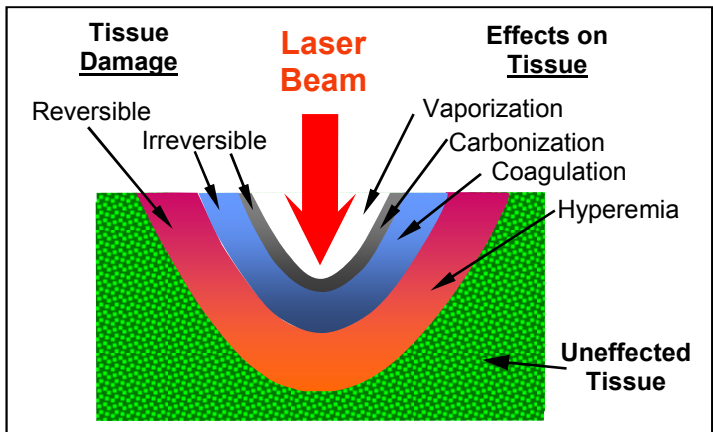
Effects of Light on Target Tissue

- Transmission
- Reflection
- Dispersion / Scattering
- Absorption



Effects of Light Energy on Target Subjects

- Photo-thermal Effects
 - Coagulation
 - Vaporization
- Photo-acoustic Effects
 - Disruption
 - Plasma effect
- Light-Induced Fluorescence
 - Caries detection
 - Mucosal evaluation
- Photo-chemical Effects
 - Stimulate chemical reactions
 - Creates chemical bonds
 - Break chemical bonds
- Photobiomodulation
 - Pain relief
 - Wound healing



Thermal Effect of Laser Energy on Tissue

<u>Tissue Temperature (C°)</u>	<u>Observed Effect</u>
37-50°	Hyperthermia
50-60°	Protein Denaturation
> 60°	Coagulation
70-90°	Welding
100-150°	Vaporization
>200°	Carbonization

There is a linear relationship between the energy of the pulse and the size of the ablation crater.

Increasing the power lowers the ablation threshold and accelerates the ablation process, thus decreasing thermal side effects.

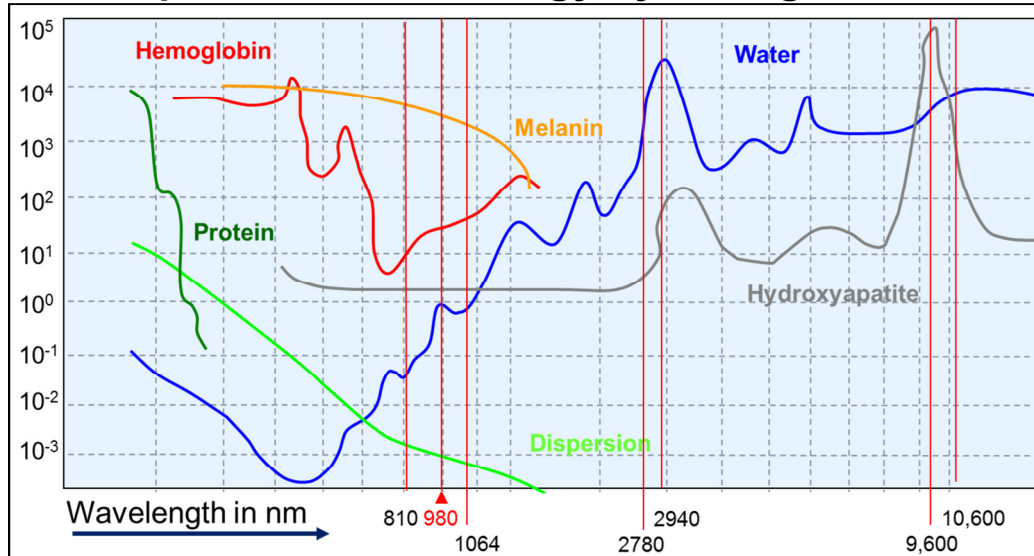
Variables Effecting Laser Tissue Interaction

- Wavelength
- Target Composition
 - Chromophores- Substances that absorbs light energy
 - Fluorophores- Substances that emits (produces) light, often when stimulated with light energy
- Interaction Time
 - Temporal Mode
 - Hand Speed
 - Total Interaction Time
- Power
- Energy Transfer Mode
 - Contact vs. Non-Contact
- Spot Size
 - Fiber size (320 micron vs. 200 micron)
- Operator's Knowledge and Experience

Maximizing the Tissue Interaction Requires:

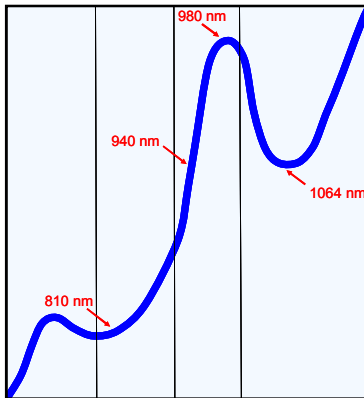
Matching the proper wavelength with the adequate amount of power with the chromophores present in the tissue.

Absorption of Laser Energy by Biological Tissue



Source: Hale GM, Querry MR, "Optical constants of water in the 200 nm to 200 μ m wavelength region" Appl. Opt.,12, 555-563

Transmission & Absorption of Near Infrared (NIR) Light Energy in Water



The Coefficient of Light Transmission in Pure Water is:

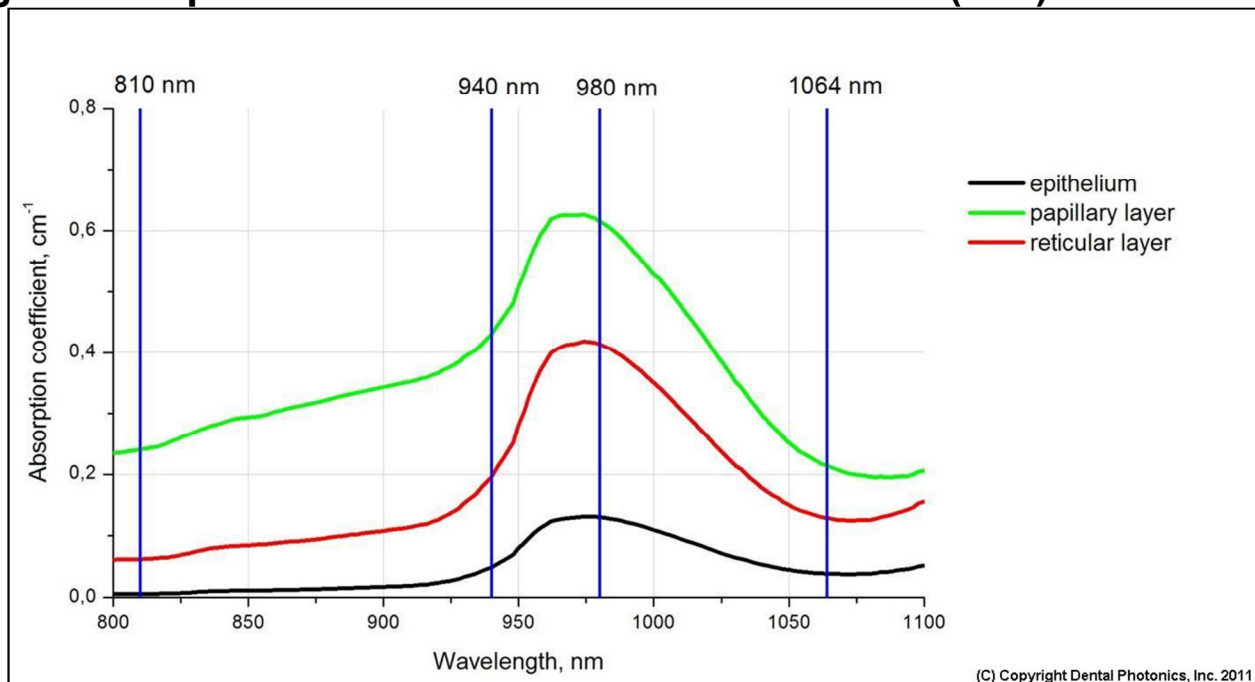
97 % at 810 nm
85 % at 1064 nm
65 % at 980 nm

The Absorption of Light Energy in Water is:

3% at 810nm
15% at 1064nm
35% at 980nm

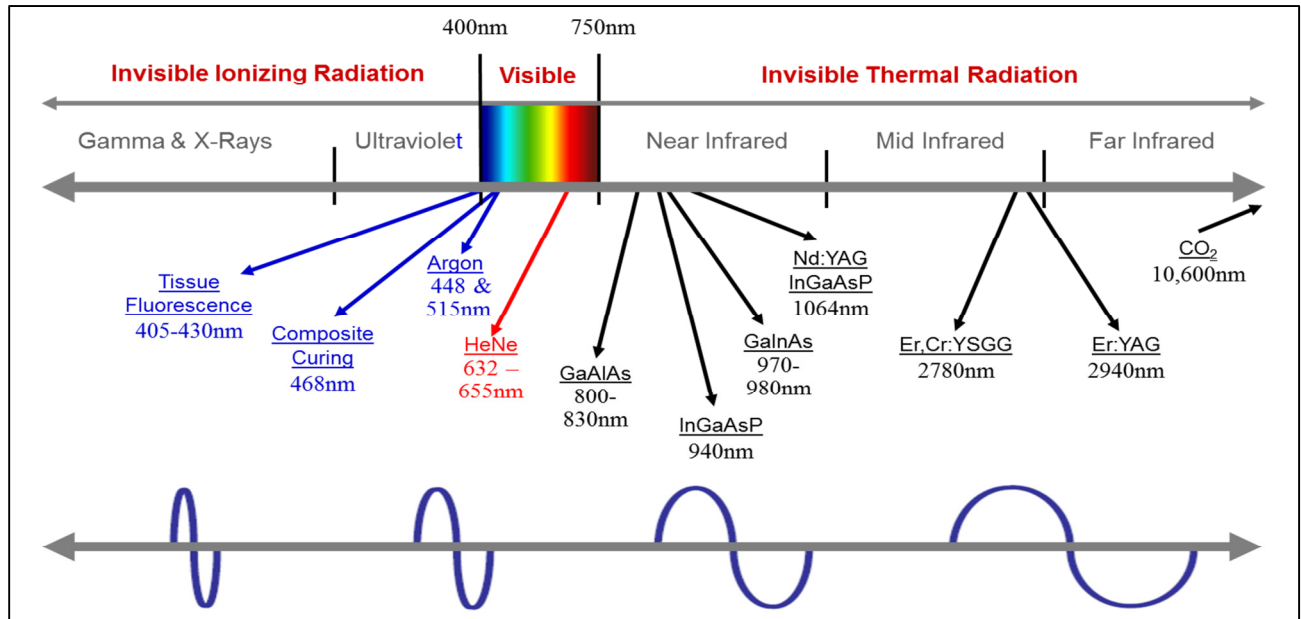
Cecchetti W, Guazzieri C, Tasca A, Dal Bianco M, Zattoni F, Pagano F
980 nm Diode Laser and Fiber Optic Resectoscope in Endourological Surgery
European Biomedical Optics Week, BiOS Europe '96

Light Absorption of Mucosa for the Near Infrared (NIR) Laser Range



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Wavelengths of Light Energy Used in Dentistry on the Electromagnetic Spectrum



Active Mediums & Wavelengths of Surgical Dental Lasers

Active Medium	Wavelength(s)
▪ Argon	488-515 nm
▪ Diode	630-1064 nm
• HeNe	630-655 nm
• GaAlAs	805-830 nm
• InGaAsP	940 nm
• GaInAs	970-980 nm
• InGaAsP	1064 nm
▪ Nd:YAG	1064 nm
▪ Erbium,Cr:YSGG	2780 nm
▪ Erbium:YAG	2940 nm
▪ CO ₂	10,600 nm

Water Content By Percentage (%) in Biological Components

Component / Tissue	Percentage of Water
Mucosa	70%
Skin	70%
Blood	83%
Cartilage	75%
Bone	10-30%
Dentin	12%
Enamel	1-3%

Temporal Emission Modes

Temporal Emission Mode -Managing tissue interaction by controlling the amount of time that laser energy interacts with the tissue, by allowing or not allowing time for the remaining tissue to cool between the pulses of energy being emitted by the laser. The 3 basic temporal emission modes used in dentistry are Continuous Wave (CW), Gated (or Chopped) Pulse, and Free Running Pulse. All the other terms used are variations of the Gated (or Chopped) Pulse mode. Diode lasers have the option of using either a Continuous Wave (CW) or Gated (Chopped) Pulse temporal emission mode.



Thermal Relaxation Time (TRT) -The time when the laser energy is not being emitted (or is off).

The purpose of the thermal relaxation time (TRT) is to give the surrounding tissue (the non target tissue) time to cool between the pulses of laser energy thus minimizing the collateral damage and the zones of thermal necrosis and thermal conduction. The longer the TRT the more tissue cooling that occurs.

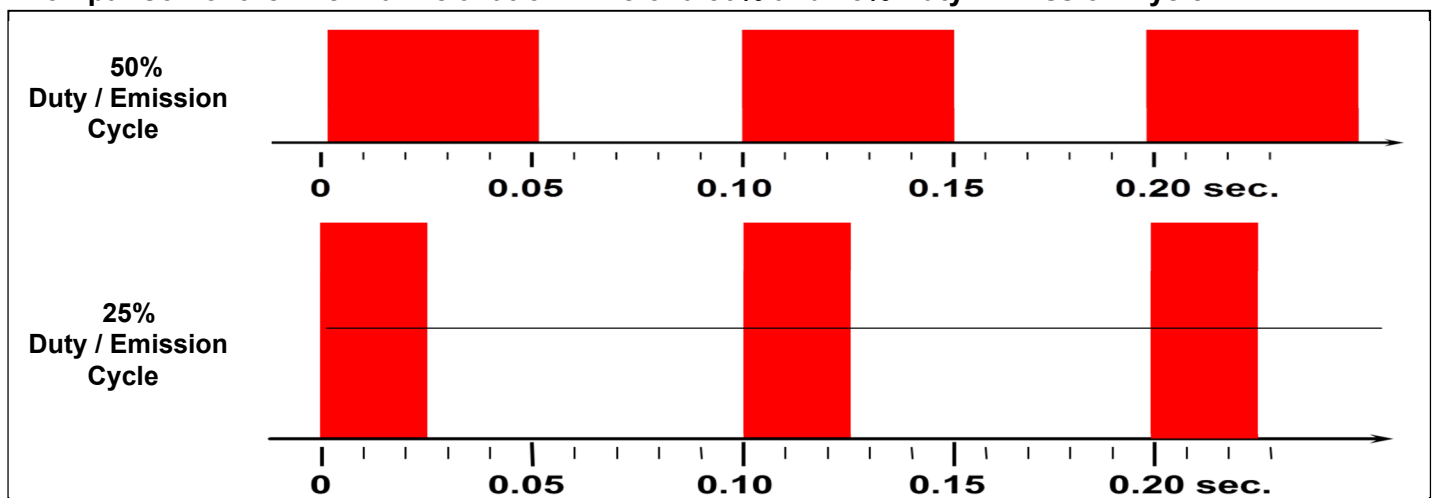
- **Continuous Wave (CW) Mode -Does NOT allow for any Thermal Relaxation Time (TRT)**
 - CW has the greatest amount of collateral damage and creates the largest zones of thermal necrosis and thermal conduction and therefore has the greatest amount of coagulation.
- **Free Running Pulse Mode -Provide a long and excellent Thermal Relaxation Time (TRT)**
- **Gated (or Chopped) Pulse Mode - Does allow for Thermal Relaxation Time (TRT)**
 - **It creates considerably less thermal damage when compared to Continuous Wave (CW).**
 - The 970-980nm diode lasers also have the ability to use water or a liquid for convection cooling and can further reduce the collateral heat spread and damage. When used in a Gated Pulse Mode provides for an even better result by minimizing the zones of thermal necrosis and thermal conduction.

Duty Cycle (Emission Cycle) –The temporal duty cycle (often referred to as an emission cycle) is the percentage (%) of time that the laser is Emitting Laser Energy vs. the Thermal Relaxation Time (TRT) within a single pulse. Simply put, it is the percentage of time the laser is on vs. off per pulse cycle.

Duty Cycle (Emission Cycle) and the Value of Controlling It

An adjustable duty cycle allows the clinician to adjust the duty percentage of time that the energy is being emitted from 1 to 100% of the emission or pulse cycle. This allows for maximum control of the Thermal Relaxation Time (TRT) by extending the TRT as long as desired or even completely eliminating it. This enables the practitioner to accomplish the ideal treatment objective desired and greatly improved outcomes.

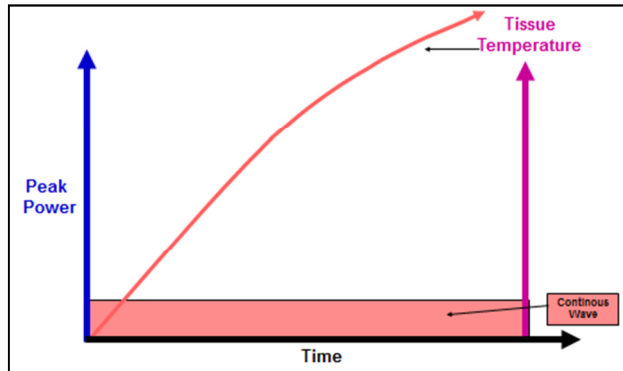
A Comparison of the Thermal Relaxation Time of a 50% and 25% Duty / Emission Cycle



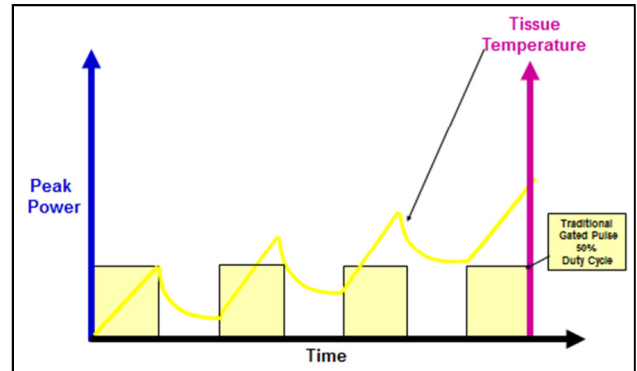
Temporal Emission Modes

(Continued)

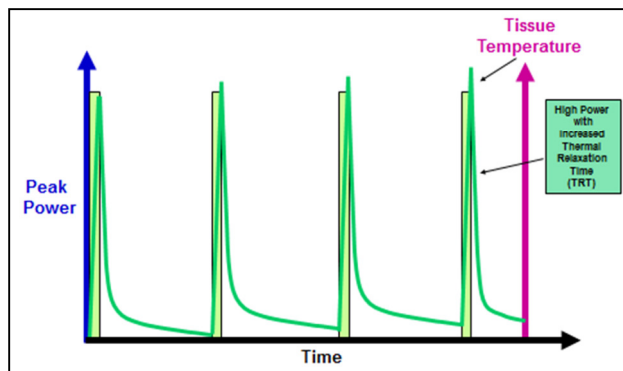
Continuous Wave Temporal Mode
Notice the Continuous Rise in Tissue Temperature
(Solid Red Line)



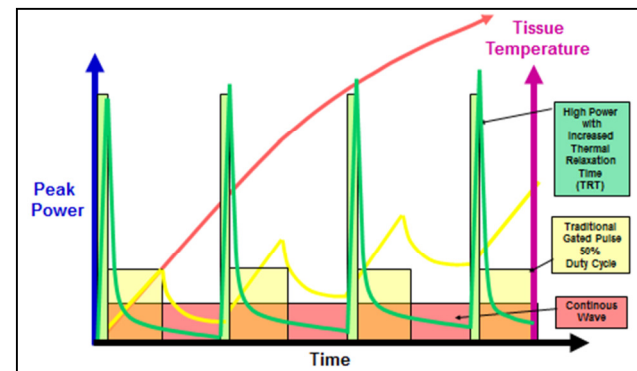
Gated Pulsed Temporal Mode 50% Duty Cycle
Notice the Rise & Fall in Tissue Temperature
(Zig-Zag Yellow Line)



Gated Pulsed Temporal Mode 12% Duty Cycle
Notice the Minimal Rise in Tissue Temperature
(Zig-Zag Green Line)



Comparison of Different Temporal Modes
Notice the Difference in Tissue Temperature
Between Red – Yellow – Green Lines



Comparison of Different Temporal Pulse Modes and Duty / Emission Cycle Effects on Coagulation

Free Running Pulsed
or Gated Pulsed
10% Duty Cycle

Gated Pulsed
25% Duty Cycle

Gated Pulsed
50% Duty Cycle

Gated Pulsed
75% Duty Cycle

Continuous
Wave

No
Coagulation

Maximum
Coagulation

Least Amount of
Collateral Thermal
Damage

Most Amount of
Collateral Thermal
Damage

**Continuous Wave (CW) Mode Will Provide
Maximum Coagulation and Cause the Most Thermal Damage**

Last Name _____ Degree(s) _____
 First Name _____ Middle Initial _____
 Company/Institution _____
 Address _____
 City _____ State/Prov. _____ Country _____ Postal Code _____
 Office Phone _____ Fax _____
 e-Mail Address _____
 Web Site Address _____

MEMBERSHIP CATEGORIES*: (For Complete Membership Descriptions, Contact ALD.)

- ___ **DENTIST (\$395)** Any practicing dentist, with a current unrestricted license shall be eligible to be an active Dentist Member. A Dentist Member shall have full membership rights as recognized under customary parliamentary practice, including the right to attend membership meetings, to participate in discussion, to vote, to be a candidate for elective office and to accept appointment to committees.
- ___ **INSTITUTIONAL (\$395)** Any dental professional whose sole or primary activity is academic instruction or dental research and is on staff of an institution with an accredited dental school program. Institutional Members have the same rights and responsibilities as defined for Dentist Members.
- ___ **NON-PRACTICING (\$150)** Any retired or disabled dentist who is no longer practicing dentistry is eligible for this category. Non-Practicing Members shall have full voting rights and are eligible for elective office. Non-Practicing Members have the same rights and responsibilities as defined for Dentist Members.
- ___ **ASSOCIATE (\$150) (NON-DENTIST)** Any dental auxiliary who is interested in obtaining knowledge about laser dentistry. Associate Members are eligible to attend regular meetings of the Academy and accept appointment to Committees. Associate Members are not eligible to vote and are not eligible to hold executive office.
- ___ **AFFILIATE (\$150)** Any qualified health care professional, scientist, or physician not eligible for membership in other membership classes shall be eligible to be an Affiliate Member. An Affiliate Member shall have full membership rights except the right of voting and except the right to hold an elective office in the Academy.
- ___ **STUDENT** (\$50)** Any full-time registered student shall be eligible for Student Member status. Student members are eligible to attend regular meetings of the Academy and accept appointment to committees. Student Members are not eligible to vote and are not eligible to hold elective office.
- ___ **CORPORATE (\$950)** Any for-profit and not-for-profit company that seeks information, affiliation, or interaction with the laser dentistry community shall be eligible for Corporate Member status. Corporate Members shall have membership rights as recognized under customary parliamentary practice. Corporate members are eligible to attend regular meetings of the Academy, but are not eligible to vote nor hold elective office. **Separate application required.**

* Dues are annual and cycle ends in December of each year. Rates are current as of October 2008. Subject to change.

**Students– please provide copy of current student I.D.

Benefits and dues are subject to change.

Total Amount Due: \$ _____ (in U.S. Dollars)

Payment Options:

- ☐ Check (payable to Academy of Laser Dentistry in U.S. Dollars)
☐ VISA ☐ MasterCard ☐ American Express



Credit Card Number (Please print clearly) _____

Exp. Date _____

Signature of Cardholder _____

Printed Name of Cardholder _____

Please indicate your profession/position:

(check all that apply)

☐ Dentist ☐ Hygienist ☐ Physician ☐ Researcher/Scientist
☐ Dental Assistant ☐ Industry/Manuf. Rep. ☐ Univ. Faculty ☐ Office Manager
☐ Student ☐ Other: _____

Dentists: Please indicate your specialty. *(Write "P" by primary specialty and "S" by up to 2 subspecialties)*

☐ General Practice ☐ Oral Surgery ☐ Periodontics ☐ Endodontics
☐ Orthodontics ☐ Prosthodontics ☐ Oral Pathology ☐ Pediatric
☐ Public Health

Dental/Hyg. School _____

City/State/Country _____ Graduation Year _____

Dental License No(s). _____ State/Country _____

Please indicate your Intro, Standard or Advanced Proficiency Certification below:

(must be official ALD-approved courses/ exams – please provide documentation)

	Date	Course Location	Instructor	Wavelength/Device
Intro	_____	_____	_____	_____
Standard	_____	_____	_____	_____
Advanced	_____	_____	_____	_____

Do you use a laser in your practice or laboratory? ☐ Yes ☐ No

If yes, in what year did you begin using a laser? _____

Please specify any hospital or academic affiliation(s) you may have:

(please indicate city, state and country):

Of which other national/regional dental societies/associations are you a member?

(indicate whether you hold an office)

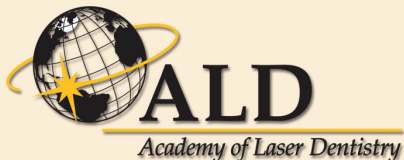
How did you hear about the Academy of Laser Dentistry?

ALD Mailing List Request Policy

ALD's membership list is available to dental organizations or corporate members on a special request basis. Each request for use must follow ALD's Mailing List Policy (for a copy please contact ALD). If you prefer that your mailing information remain for ALD use only please check this box ☐.



Submit completed application with payment to:
Academy of Laser Dentistry - Membership Department
PO Box 8667, Coral Springs, Florida 33075 USA
(954) 346-3776 x204 Fax (954) 757-2598
Toll Free 1-877-LASERS6
memberservices@laserdentistry.org • www.laserdentistry.org



ALD 19TH ANNUAL CONFERENCE & EXHIBITION

MARCH 29-31, 2012



ACADEMY OF LASER DENTISTRY

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ALD 19th Annual Conference & Exhibition
March 29-31, 2012
Scottsdale, Arizona

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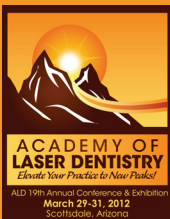
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www.LaserDentistry.org/ALD2012Scottsdale



ALD 2012

REGISTER NOW

March 29-31
Scottsdale, AZ

NAME _____ DEGREE _____

COMPLETE ADDRESS: _____

PHONE _____ EMAIL _____

PAID SPOUSE/GUEST INFORMATION: (Please Use Additional Application for Staff Members)

LAST NAME: _____ FIRST NAME: _____ DEGREE/CREDENTIAL: _____

THE 2012 PLANNING COMMITTEE WOULD LIKE TO KNOW:

Which Lasers Do You Currently Use? _____

Are You Interested in Sharing your Laser Experience with First Time Laser Buyers at this Meeting? _____

REGISTRATION FEES

Registration includes ALL Educational Sessions, Welcome Reception, 3-days Breakfast, 3-days Lunch, Morning and Afternoon Coffee Breaks. The President's Awards Banquet is NOT included in registration fees for 2012. Please purchase individual tickets for the President's Awards Banquet.

Registration does not include Certification Courses, Exam Fees, President's Awards Banquet, Tours or optional Social Events.

DENTISTS! REGISTER EARLY AND SAVE!

	Early Bird Rates Member Rates Before Nov 1	Member Rates After Nov 1	Future ALD (Non-Member Rates)
Doctor, Researcher and Scientist*	\$945	\$995	\$1,445
Auxiliary Staff / Office Manager (non-doctor)*	\$495	\$595	\$795
Spouse / Guest (non-staff, non-doctor, no CE credit)*	\$245	\$295	\$495
Student (Must have student I.D.)*	\$125	\$125	\$125
Military / Retired / Non-Practicing Attendee*	\$495	\$595	\$795
First Time University Faculty Attendee*	\$495	\$595	\$995
First Time International Attendee*	\$495	\$595	\$995
Industry Representative (non-doctor / non-exhibitor)*	\$695	\$795	\$995
President's Awards Banquet	\$150	\$150	\$150

*The President's Awards Banquet is NOT included in any registration fee for 2012.

Registration rates include a 30% discount for staying at the Radisson Fort McDowell, our host hotel. If you are not staying on-site at the Radisson Fort McDowell and you are not a local resident, ALD will charge an additional 30% meeting registration fee.

PAYMENT

CREDIT CARD ☐ AMEX ☐ MC ☐ VISA ☐ CHECK CHECK # _____ (Payable to Academy of Laser Dentistry in US Dollars)

CARD# _____ EXP DATE _____

PRINT NAME ON CARD _____

SIGNATURE _____

CANCELLATION POLICY: All cancellations must be received in writing by December 1, 2011 to receive a full refund. After December 1, 2011 a refund will be issued less a \$150 administration fee. No refunds will be issued after January 15, 2012. To qualify as an "ALD Member" 2012 Membership Dues must be up to date and paid by January 15, 2012 to qualify for Member Rates.

FAX REGISTRATION FORM BY NOVEMBER 1, 2011



ACADEMY OF LASER DENTISTRY
P.O. Box 8667 Coral Springs, Florida 33075
Office: 954-346-3776 FAX 954-757-2598

Laser Device Specifications & Worksheets for Comments & Notes

Ablation Procedures

Ablation procedures include, but are not limited to: Frenectomy, Soft tissue troughing, Destruction of a lesion, Distal wedge procedures, Gingivoplasty, Operculectomy, Gingivectomy, Vestibuloplasty, Tooth exposures, Implant uncovering, Periodontal Pocket Debridement Laser Therapy (PDLT), etc.

- An ablation technique is removing tissue by moving the laser fiber in a two way back and forth motion, similar to the use of a pencil eraser. It can be accomplished with the fiber in light contact with the tissue for tactile sensitivity, or with the fiber completely out of contact with the tissue. Almost all lasers procedures that are performed with incisional techniques are finished with the tissue being smoothed with an ablation technique.

Incisional and Excisional Procedures

Incisional / excisional procedures include, but are not limited to: Gingivectomy, Gingival flap incisions, Distal wedge, Biopsies, Tooth exposures, Fibroma removal, etc.

- Incisional “Blade” type technique is using the laser fiber like a scalpel blade to make an incision but with a two way back and forth “sawing” type motion.
- The slower the fiber movement (handspeed) the faster the incision will be made. However, the slower the handspeed, the more heat that will be spread into the surrounding tissue and its resulting effect.
- An excisional technique is used when the tissue to be removed is cut off in block section(s) with an incision.
 - The use of tissue pickups or a silk suture can be helpful in controlling the specimen (tissue) to be removed or excised.
 - An excisional technique is used for biopsies so there is a tissue specimen that can be evaluated by an oral pathologist.

Photodynamic Therapy / Photobiomodulation

- Photodynamic therapy is the technique of achieving a therapeutic tissue response without removing any tissue. It is accomplished with the fiber completely out of contact with the tissue and constantly moving the laser fiber, similar to the use of a pencil eraser to paint the target area with laser energy.
- Photodynamic therapy procedures that can be performed with soft tissue lasers include, but are not limited to: Treatment of Aphthous ulcers, Herpetic lesions, Desensitization, Pain reduction, Improved healing, etc.

Perform the above techniques with each device and
use the following pages to record
your thoughts and comments on your experience with each device

For further information and details on these laser devices you can visit their booths on the exhibit floor or contact the companies through their websites and telephone number listed with each device.

For additional information on the use of lasers in dentistry contact the:

Academy of Laser Dentistry



www.LaserDentistry.org

Telephone: 954-346-3776



On the following pages are the devices used today in our hands-on workshop:

Laser Model: **Waterlase MD Turbo**
 Website & Telephone: www.Biolase.com
 Primary Function: Hard and Soft Tissue Procedures
 Wavelength & Medium: 2780 nm Er,Cr:YSGG
 Max. Average Power: 8 Watts (Pulse Energy 0-300 mJ)
 Nominal Ocular Hazard Distance (NOHD) 2 inches (5 cm)
 Temporal Modes: Free Running Pulsed (10-50 Hz)
 Duty Cycle / Pulse Duration: 60 & 700 µsec
 Delivery System: Optical fiber
 Tip Design: Multi use and single use tips
 Control Mechanism: Wireless Foot Control
 Powered By: 110v AC
 Training / Education: Several options available
 Warranty: 1 Year
 Purchased Through: Henry Schein, or Benco, or Direct from Manufacturer

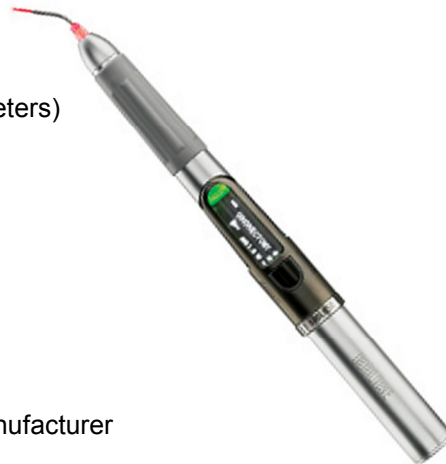
Mfg: **Biolase Technology, Inc.,**
 800-645-6594



Comments:

Laser Model: **iLase**
 Website & Telephone: www.Biolase.com
 Primary Function: All Soft Tissue Procedures
 Wavelength & Medium: 940 nm Diode
 Max. Peak Power: 5 Watts
 Nominal Ocular Hazard Distance (NOHD) 8 feet 7 inches (2.61 meters)
 Temporal Modes: Continuous Wave and Pulsed
 Duty Cycle: Variable
 Delivery System: Optical Fiber
 Tip Design: Single Use Tip
 Control Mechanism: Finger switch
 Powered By: Rechargeable Li-Ion Battery
 Training / Education: DVD and Available for purchase
 Warranty: 2 Years
 Purchased Through: Henry Schein, or Benco, or Direct from Manufacturer

Mfg: **Biolase Technology, Inc.,**
 800-645-6594



Comments:

Laser Model: **ezLase**
 Website & Telephone: www.Biolase.com
 Primary Function: All Soft Tissue Procedures,
 Wavelength & Medium: 940 nm Diode
 Max. Peak Power: 7 Watts
 Nominal Ocular Hazard Distance (NOHD) 38 feet 8 inches (11.8 meters)
 Temporal Modes: Continuous Wave and Pulsed
 Duty Cycle: Variable
 Delivery System: Optical fiber
 Tip Design: Single Use Tip
 Control Mechanism: Wireless Foot Control
 Powered By: 110v AC
 Training / Education: DVD and Available for purchase
 Warranty: 2 Years
 Purchased Through: Henry Schein, or Benco, or Direct from Manufacturer

Mfg: **Biolase Technology, Inc.,**
 800-645-6594



Comments:

Laser Model: **Precise LTM**
 Website & Telephone: www.CAOGroup.com/dental
 Primary Function: All Soft Tissue Procedures
 Wavelength & Medium: 808 nm Diode
 Max Peak Power: 5 Watts
 Nominal Ocular Hazard Distance (NOHD) 10 Feet (119.72 inches)
 Temporal Modes: Continuous Wave & Fixed Pulse at 10Hz
 Duty Cycle: 50% Fixed Duty Cycle
 Delivery System: Optical fiber (400 micron)
 Tip Design: Disposable Canulas
 Control Mechanism: Wireless Foot Pedal
 Powered By: 110v AC
 Training / Education: Online Training
 Warranty: Laser 2 Years (Fiber & Cartridge 90 Days)
 Purchased From: Henry Schein Dental Supply

Mfg: **CAO Group, Inc.**
 877-236-4408



Comments:

Laser Model:	Odyssey Navigator	Mfg: Ivoclar Vivadent
Website & Telephone:	www.IvoclarVivadent.com/odyssey	800-533-6825
Primary Function:	All Soft Tissue Procedures	
Wavelength & Medium:	810 nm Diode	
Max Peak Power:	3 Watts	
Nominal Ocular Hazard Distance (NOHD)	13 Feet (154.55 inches)	
Temporal Modes:	Continuous Wave & Fixed Pulse at 10Hz	
Duty Cycle:	50% Fixed Duty Cycle	
Delivery System:	Optical fiber (400 micron)	
Tip Design:	Single Use 400 Micron Fiber Tip in 3.5mm or 6mm lengths	
Control Mechanism:	Wireless Foot Pedal	
Powered By:	Rechargeable Battery Powered (45 minutes) or 110v AC	
Training / Education:	Full-day training session at an Ivoclar Vivadent training center	
Warranty:	2 years for laser, 1 year for battery, 6 months for fiber optic handpiece	
Purchased From:	Major Dental Dealers	
Comments:		



Laser Model:	Odyssey 2.4G Diode Laser	Mfg: Ivoclar Vivadent
Website & Telephone:	www.IvoclarVivadent.com/odyssey	800-533-6825
Primary Function:	All Soft Tissue Procedures	
Wavelength & Medium:	810 nm Diode	
Max Peak Power:	5 Watts	
Nominal Ocular Hazard Distance (NOHD)	10 Feet (119.72 inches)	
Temporal Modes:	Continuous Wave & Fixed Pulse at 10Hz	
Duty Cycle:	50% Fixed Duty Cycle	
Delivery System:	Optical fiber (400 micron)	
Tip Design:	Disposable Canulas	
Control Mechanism:	Wireless Foot Pedal	
Powered By:	110v AC	
Training / Education:	Full-day training session at an Ivoclar Vivadent training center	
Warranty:	2 years	
Purchased From:	Major Dental Dealers	
Comments:		



Laser Model: **SIROLaser Advance**
Website & Telephone: www.SIROLaserTraining.com
Primary Function: All Soft Tissue Procedures
Wavelength & Medium: 970 nm Diode
Max Peak Power: 14 Watts
Nominal Ocular Hazard Distance (NOHD) 5 Feet (1.5 meters)
Temporal Modes: Continuous Wave & Pulsed
Duty Cycle: Variable from 1-100%
Delivery System: Optical fiber (320 micron & 200 micron)
Tip Design: Single Use Canula & Reusable Autoclavable Fiber
Control Mechanism: Finger Switch (Optional Wireless Foot Pedal)
Powered By: Rechargeable Battery Powered (4 Hours) or 110v AC
Training / Education: 8 Credit Hour Hands-On Device Specific Training Included
Warranty: 2 year
Purchased From: Major Dental Dealers

Mfg: **Sirona Dental Systems**

800-659-5977



Comments:

Instrument Setup for Biopsy & Surgical Procedures

Benjamin Biopsy Kit - (Item# ZKIT-BBK)

All Item # are for Zoll Dental Instruments

Telephone #: 800-239-2904

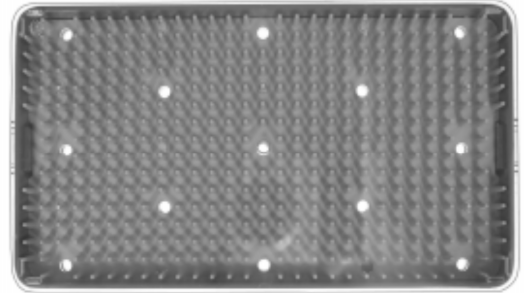
www.ZollDental.com

email: ken@zoll dental.com or jeff@zoll dental.com

Instruments

1 -Sterilization Cassette

Two Piece Plastic Sterilization Cassette w/ Silicone Finger Mat (6.0"W x 10"L x 0.75" D)
Zoll Item # ZC-6100A



1 -Explorer / Periodontal Probe

Double Ended UNC 15 Periodontal Probe and #23 Explorer)
Comment: May be 2 separate instruments: (#23 Explorer & UNC 15 Periodontal Probe)
Zoll Item # PCC-UNC15/23 (Double Ended UNC 15 Perio Probe & #23 Explorer)



1 -Tissue Pickup Forceps

#41 Adson Tissue Forceps (Tissue Pick-ups) Serrated (4.75"/12cm)
Zoll Item # K-4144



1 -Needle Holder

Mathieu Stainless Needle Holder (5.5" /14cm)
Zoll Item #: K-4054



1 -Surgical scissors

#18 Iris Curved Scissors, No Serrations (4.5" /11.5cm)
Zoll Item # K-4019



1 -Periosteal Elevator

Benque Periosteal Elevator, Double Ended
Zoll Item # Benque



1 -Tissue Clamp

Desmarres-Chalazion Tissue & Dressing Forceps (Medium -9cm Long with 26mm Oval)
Zoll Item # KBD-131



Laser Accessories and Misc. Supplies

Zoll Dental Instruments

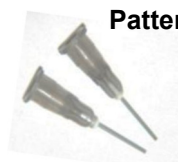
Laser Cleaving Tool (mfg # LCT-1)
Marginal Trimmer (mfg # MT-35)
Benjamin Biopsy Kit (mfg # ZKit-BBK)

www.ZollDental.com
3 piece package (mfg # LCT-1-3pk)

Telephone: 800-239-2904



Bendable 3/4" Stainless Steel Multipurpose Dispensing Tips (Disposable Fiber Guides (Canulas) for Handpiece)
Use 19 Gauge for 320 micron fiber & 22 Gauge for 200 micron fiber



Patterson Bendable SS Dispensing Tips

19 gauge (Brown)* 125 tips (part # 089-4436)
20 gauge (Yellow) 125 tips (part # 089-4444)
22 gauge (Black) 125 tips (part # 089-4451)
25 gauge (Blue) 125 tips (part # 089-4469)

Vista-Dental Appli-Vac™ 3/4" Tips

19 gauge (Brown)* 100 tips (mfg # 315119)
20 gauge (Yellow) 100 tips (mfg # 315120)
22 gauge (Black) 100 tips (mfg # 315122)
25 gauge (Blue) 100 tips (mfg # 315125)

Topical Anesthetics

Cetacaine (Benzocaine 14.0%, Butamben 2.0%, Tetracaine Hydrochloride 2.0%) Topical Anesthetic Liquid Kit
Cetacaine Topical Anesthetic Liquid Kit (mfg # 0210)
Cetacaine Topical Anesthetic Liquid (14g) (mfg # 0203)
Cetacaine Topical Anesthetic Liquid (30g) (mfg # 0211)
Cetacaine Topical Anesthetic Gel (mfg # 0217)

Hurricane (Benzocaine 20.0%) Topical Anesthetic

HurriPak Periodontal Kit Cherry (mfg # 0283056984)

HurriPak Periodontal Kit Pina Colada (mfg # 0283188684)

TAC-20 (Compounded Topical Gel of 20% Lidocaine, Tetracaine, & Phenylephrine)

Professional Arts Pharmacy

www.ProfessionalArts.com

Telephone: 888-237-4737



Surgical Punch

Premier Uni-Punch (available in diameters ranging from 1.5mm to 8mm)

Assorted package (5 each of 2mm, 3mm, 4mm, & 5mm) (mfg # 9033525)

Recommend routinely using: 4 mm (mfg # 9033504) or 5 mm (mfg # 9033505)



Hemostasis Products

HemCon Dental Dressings

10mm x 12mm HemCon Dental Dressing (available in 1/pk & 4/pk)

1 inch x 3 inches HemCon Dental Dressing (available in single packs or boxes of 12 packs)

Anti-microbial Rinse and Irrigating Agent

Alcohol-free Chlorhexidine Gluconate 0.12% by Sunstar Butler (GUM) (mfg # 1789P-1)



Locally Administered Antibiotics (LAA)

ARESTIN® (minocycline HCl) microspheres

www.myArestin.com

Telephone: 866-273-7846

Post Treatment Products

Socket!

Oral Hydrogel Wound Dressing



www.socketgel.com

Telephone: 800-755-0044

Biotene (GlaxoSmithKlein) Products

Sample packages for professionals to handout to patients can be obtained directly from Biotene by registering and logging in on their website at: www.Biotene.com

Telephone: 800-652-5625

Patient Brochures

WHAT IS THE DIFFERENCE... Between a "Regular" Cleaning a Root Planing and Periodontal Maintenance?

www.SteppingStonesToSuccess.com Telephone: 800-548-2164

Laser Eye Ware (Laser Filters for Loupes & Microscopes; also Laser Safety Glasses for Clinician, Patient, & Children)
Innovative Optics Inc.

www.InnovativeOptics.com

Telephone: 800-990-1455

3M Command Decorator Hooks #17026

For Hanging Laser Safety Signs



Resources and References

Websites and Telephone Numbers

Academy of Laser Dentistry	www.LaserDentistry.org	954-346-3776
Laser Institute of America	www.LIA.org	800-345-2737
Comprehensive Dental Technologies, Inc.	www.CDT.net	800-246-4337
VELscope / LED Dental, Inc.	www.VELscope.com	888-541-4614
Zoll Dental Instruments	www.ZollDental.com	800-239-2904
Lexi-Comp, Inc.	www.Lexi.com	800-837-5394
For Lexi-Comp purchases use Discount Program ID # NP9N4 for 10% Discount		
Biotene / GlaxoSmithKline	www.Biotene.com	800-652-5625
DentLight, Inc.	www.DentLight.com	877-570-9748
HemCon Medical Technologies, Inc.	www.HemCon.com	503-245-0459
AdDent Inc.	www.AdDent.com	203-778-0200
Advanced Integration & Mentoring, Inc.	www.DentalAIM.com	800-246-4337

Laser Eyewear

Innovative Optics	www.innovativeoptics.com	800-990-1455
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Dental Photography

DoctorsEyes.com	www.DoctorsEyes.com	800-971-9917
Dental Learning Centers	www.DLCenters.com	425-557-7788
PhotoMed	www.PhotoMed.net	800-998-7765

Software Programs

Lexi-Comp On-line (Drug Interaction Software)	www.Lexi.com	800-837-5394
For Lexi-Comp purchases use Discount Program ID # NP9N4 for 10% Discount		
VisualDx (Logical Images Inc.)	www.logicalimages.com	800-357-7611
Oral Mucosal Differential Diagnostic Decision Assistance Program		
Practice Booster (Cloud / Web Based Insurance Coding Guide)	www.PracticeBooster.com	866-858-7596
ImageCentrik	www.DLCenters.com	425-557-7788
Presentations by Design, a Clinical Photographic Image Manipulation and Management Software		

Oral Pathology Labs

American Academy of Oral Maxillofacial Pathology List of Oral Pathology Labs:	www.AAOMP.org/general/labsrvs.html	
OMA Oral Pathology Laboratory (UB Dental School Pathology Lab Service)	aquirr@buffalo.edu	716-829-2164
OralDNA Labs, Inc.	www.OralDNA.com	877-577-9055
CDx Laboratories, Inc.	www.OralCDx.com	877-672-5722

Insurance & Fee Guidance References

National Dental Advisory Service (Fee Info Guide)	www.NDAS.com	414-272-3232
Coding with Confidence by Dr. Charles Blair	www.PracticeBooster.com	866-858-7596
Insurance Solutions Newsletter (American Dental Support, LLC)	www.Dental-Ins-Solutions.com	888-825-0298
Atlanta Dental Consultants, Inc.	www.Limoli.com	404-252-7808
<i>The Guide--Cross Coder for Dental to Medical Insurance Billing</i>	rdsguide@earthlink.net	972 416-6041
<i>CDT 2011-2012 and Companion Guide</i>	www.ADA.org	800-947-4746

Informational Websites

Academy of Laser Dentistry	www.LaserDentistry.org	954-346-3776
Laser Institute of America (ANSI Laser Safety Standards)	www.LIA.org	800-345-2737
Oral Cancer Foundation	www.OralCancerFoundation.org	
American Academy of Oral Maxillofacial Pathology	www.AAOMP.org	888-552-2667
American Academy of Oral Medicine	www.AAOM.com	425-778-6162
National Library of Medicine	www.NLM.NIH.gov	
National Institutes of Health (NIH)	www.NIH.gov	