

EPIC HYGIENE ACADEMY



CHAIRSIDE GUIDE

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1 LASER SAFETY

Checklist

- ✦ Wavelength-specific glasses
- ✦ Mask 0.1 micron filtration (Class III)
- ✦ Laser safety signage at operatory entrance
- ✦ High Volume Evacuation (HVE)
- ✦ Test fire the Laser
- ✦ Laser Safety Officer (LSO)
- ✦ Stay within the clinician and treatment parameters
- ✦ NOHD (Nominal Ocular Hazard Distance) Laser Safety Goggles are required within this distance:
Epic Hygiene: 1.625 meters or 5 ft 3.98 in
Epic X: 2.71 meters or 8 ft 10 in

Combustable Gases

- ✦ 2005 ANSI Standard, Z-136.3- states that Nitrous oxide/Oxygen can be used with proper scavenger and suction technique
- ✦ Alcohol-based products should be used with caution within proximity to the laser beam
- ✦ Alcohol moistened gauze or wipes should not be used to remove the coagulum from the tip of the fiber- water moistened only
- ✦ Oxygen tanks should be shut off and placed outside of the operatory

2 LASER USE

Checklist

- ✦ Your Epic Laser is fully charged
- ✦ The appropriate length tip is on, bent and fully tightened into autoclavable handpiece
- ✦ There are batteries in the foot pedal, and it is connected to your laser via Bluetooth
- ✦ You have the appropriate safety glasses needed within NOHD zone, for patient and clinician(s)
- ✦ Proper HVE is ready
- ✦ Laser factory password: 888
- ✦ **Always test fire before use!**



Epic Hygiene Laser Safety Signage



Epic X Laser Safety Signage

Footpedal Tips

Avoid footpedal error codes by following these tips:

- ✦ After putting laser in “Ready” mode, wait for laser “motor” to kick on before depressing the foot pedal
- ✦ Fully depress the foot pedal, partial depressing will cause error code
- ✦ Avoid using as a rheostat (the on and off motion continuously) will cause error code
- ✦ Keep up to date on replacing the two AAA-size lithium batteries

Disposable Laser Tips



E4-4mm

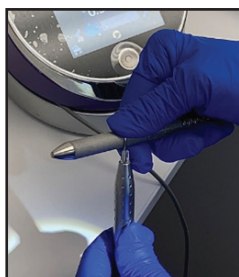
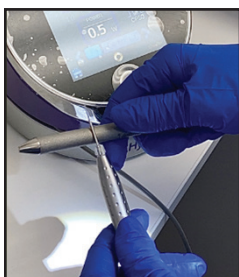


E4-7mm



E4-9mm

Angulation of the Tip Canula



3 POCKET THERAPY

Laser Bacterial Reduction (Epic Hygiene)

- ✦ In sulcular areas of less than 4 mm, used to conservatively reduce inflammation and bacteria
- ✦ Can be incorporated on all patients
- ✦ Can be performed at the beginning or at the end of the hygiene appointment
- ✦ Uninitiated tip is used
- ✦ Most common tip used E4-4 mm or E4-7 mm (choose length according to attachment loss and crown length)
- ✦ No anesthetic is needed
- ✦ Insert the tip 0.5-1 mm into the sulcus
- ✦ Short overlapping exploratory strokes, Distal to Mesial slowly
- ✦ No tissue interaction
- ✦ Approximately 4 minutes for the entire mouth or 10-15 seconds per tooth B/L

Epic Hygiene Preset	Mode	Peak Power	Avg. Power	Pulse On	Pulse Off	Duty Cycle	Tip	Initiated
1 – Pocket Therapy	CP10	5W	0.5 W	10 µs	90 µs	10%	E4-4	No

Sulcus Pocket Treatment (Epic X)

- ✦ In sulcular areas of less than 4 mm, used to reduce and decontaminate debris in the sulcus in a conservative manner to prevent cross-contamination and reduce inflammation risk associated with biofilm

Epic X Preset	Mode	Peak Power	Avg. Power	Pulse On	Pulse Off	Duty Cycle	Tip	Initiated
7 – Perio Pockets	CP2	1.6W	0.8W	1.0 ms	1.0 ms	50%	E4-4	No

*All settings are recommended baselines

Correct Fiber Placement



Correct

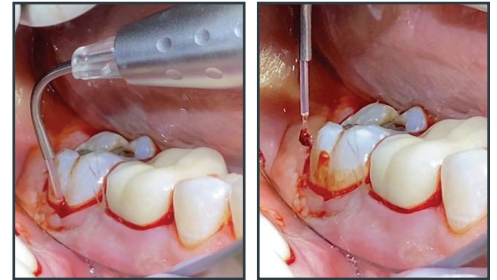


Incorrect

4 PERIO DEBRIDEMENT

Laser Assisted Periodontal Therapy (LAPT)

- ✦ Procedure is in addition to NSPT/Scaling and Root Planing treatment plans
- ✦ Treatment is most often performed by starting in the interproximal area and moving the fiber within the pocket buccal or lingually D-M (circumferentially) around the tooth to the opposite interproximal area
- ✦ Some clinicians use a zigzag motion from the top to the bottom of the pocket, then use a crosshatch motion from the bottom to the top of the pocket
- ✦ **If state prohibits initiated Tip:** Perform the same motion without initiation to get laser energy to the base of the pocket
- ✦ Total time in pocket should not exceed 60 seconds — go to depth of pocket, pull back 1 mm, apply slow crosshatch motion, 15 secs B/L for two rounds, approx. 1 min per tooth, approximate 8 mins per quad
- ✦ Wipe the tip with water-soaked gauze as needed
- ✦ **Note:** Always angle the fiber away from the tooth surface, slightly toward the tissue
- ✦ Ultimate goal is **tissue rehabilitation!**



Epic Hygiene Preset	Mode	Peak Power	Avg. Power	Pulse On	Pulse Off	Duty Cycle	Tip	Initiated
2 – Perio Debridement	CP50	0.8W	1.6W	20 ms	20 ms	50%	E4-7or PI4	Yes**
3 – Curettage	CP50	0.8W	1.6W	20 ms	20 ms	50%	E4-7or PI4	Yes**

Epic X Preset	Mode	Peak Power	Avg. Power	Pulse On	Pulse Off	Duty Cycle	Tip	Initiated
3 – Curettage	CP1	2.4W	0.8W	0.1 ms	0.2 ms	30%	E4-7	Yes**
10 – Infected Pockets	CP2	1.6W	0.8W	1.0 ms	1.0 ms	50%	E4-7	Yes**

*All settings are recommended baselines **If state prohibits Tip initiation, perform the same motion without initiation to get laser energy to the base of the pocket

Initiating the Tip with Articulating Paper

Touching the paper, move it around for a minimum of 5 seconds. The initiated Tip will have a yellow glow.



5 APHTHOUS ULCERS/HERPETIC LESIONS

- ✦ No anesthesia
- ✦ Non-contact, non-initiated tip usually E4-4 mm tip
- ✦ Continuous wave
- ✦ HVE mandatory
- ✦ Hold the E-4 4 mm tip perpendicular to the lesion at a distance of 2 mm from the surface and begin lasing the perimeter of the lesion with a circular motion
- ✦ Continue to lase the entire lesion in a cross hatch technique (horizontal strokes then vertical strokes) of the ulcer for approximately 30 to 90 seconds
- ✦ Allow the lesion to rest for 10 seconds then repeat the procedure 3-5 cycles, increasing by 0.2 W per cycle depending on patient comfort
- ✦ Treat outside of the lesion 1-2 mm
- ✦ Continue to receive feedback from the patient
- ✦ Lasing is complete when the patient no longer feels pain from the ulcer or possibly when the visual appearance has changed to white, or if a herpetic lesion, has a dry flakey appearance
- ✦ Tips on decreasing sensitivity for patient — move faster, pull away from lesion, decrease energy



Before

0.4-1.0 W CP 50%

Immediately After

Epic Hygiene Preset	Mode	Peak Power	Avg. Power	Pulse On	Pulse Off	Duty Cycle	Tip	Initiated
4 – Aphthous Ulcers	CW	0.7W	0.7W	–	–	N/A	E4-4	No
5 – Herpetic Lesions	CW	0.7W	0.7W	–	–	N/A	E4-4	No

Epic X Preset	Mode	Peak Power	Avg. Power	Pulse On	Pulse Off	Duty Cycle	Tip	Initiated
13 – Aphthous Ulcer**	CW	0.7W	0.7W	–	–	N/A	E4-4	No

*All settings are recommended baselines **Use preset 13 - Aphthous Ulcer for Herpetic Lesions on Epic X Soft Tissue Laser

6 STEP-BY-STEP LASER WHITENING

Epic X, Whitening Handpiece and LaserWhite 20
(available at store.biolase.com)

- ✦ Take out 1 hour before using from fridge, allow to reach room temperature
- ✦ Use Laser Safety Glasses
- ✦ Find patient's "before" shade and take a photo
- ✦ Full mouth pumice with no fluoride and no glycerin
- ✦ Apply Vaseline to the patient's lips and place cheek retractors
- ✦ On dry Gums, apply the liquid dam 0.5 mm over the enamel then 4-6 mm into the gingiva with a 1-2 mm thickness of barrier material filling in the embrasures (no pink gingiva showing, feel free to cover recessed areas for protection)
- ✦ Light cure green dam until hardened
- ✦ Connect the base syringe (clear) into the activator syringe (purple) by twisting one onto the other until fully tightened and mix 25 times until consistent — push the mixed gel into the gel base barrel, unscrew the syringes and place brush applicator tip
- ✦ Apply only ½ the syringe premolar to centrals about 1 mm thick, for all 4 quads (use sparingly)
- ✦ Do not allow the solution to touch the lips or tongue — use gauze or cotton rolls for the patient to bite on
- ✦ Place the disposable protective shield over the arch of the handpiece — apply laser energy for 30 seconds per quad, approximately 1 mm away from the quad, for two rounds (i.e. Q1, Q2, Q3, Q4, repeat)
- ✦ **THEN LEAVE SOLUTION ON FOR MINIMUM OF 5 MINUTES** after last cycle
- ✦ Suction using surgical tip, clean off gel and reapply remaining syringe for a second round — flush lightly with an air and water syringe to remove any residual gel (be careful to leave liquid dam intact)
- ✦ Apply the other ½ of the syringe premolar to centrals about 1 mm thick, for all 4 quads — use new applicator brush tip, use sparingly
- ✦ Apply laser for 30 seconds per quad for 2 rounds (i.e. Q1, Q2, Q3, Q4, repeat).
- ✦ **THEN LEAVE SOLUTION ON FOR MINIMUM OF 5 MINUTES** after last cycle
- ✦ Suction and clean off whitening solution, remove liquid barrier with an explorer, rinse thoroughly with water and suction — floss interproximal areas if needed
- ✦ Apply a moist cotton gauze over the gums and teeth, wait a few minutes to rehydrate the tissue and enamel
- ✦ Use desensitizer in package for any sensitivity with teeth
- ✦ **Helpful tip:** Vitamin E can be placed on gingiva to sooth any irritated areas
- ✦ Take **Final Shade** and "after" photo and send it to the **Epic Hygiene Academy** to be featured!



7 STEP-BY-STEP TMJ/PAIN THERAPY

Epic X, Deep Tissue Handpiece (available at store.biolase.com)

- ✦ There are 3 trigger points
 1. Injury/or muscular soreness area
 2. Lymphatic node area
 3. Masseter muscle area
- ✦ Non-contact mode, move handpiece to defocus energy
- ✦ The default settings for pain therapy are 2.75 W for 10 minutes with the spot size at 30 mm. Power can be adjusted from 2.75 W to 4 W maximum, as appropriate (based on the Fitzpatrick Skin Type Scale—see below)
- ✦ Keep the handpiece moving
- ✦ Defocus (pull away from treatment area) if patient experiences too much warmth or decrease the power setting



Recommended Use:

There are four main variables that impact the safety and effectiveness of pain therapy procedures:

- ✦ Power output
- ✦ Distance from the skin surface
- ✦ Range of movement of the Handpiece
- ✦ Patient skin type

Safety and efficacy are described by elevating the skin temperature in the treatment area utilizing the recommended settings

Fitzpatrick Skin Type Scale		Maximum Recommended Power / Exposure
TYPE I	Always burns, never tans (pale white; blond or red hair; blue eyes; freckles).	Not recommended for laser therapy
TYPE II	Usually burns, tans minimally (white; fair; blond or red hair; blue, green, or hazel eyes).	3.25W / 10 minutes
TYPE III	Sometimes mild burn, tans uniformly (cream white; fair with any hair or eye color)	4.00W / 10 minutes
TYPE IV	Burns minimally, always tans well (moderate brown).	3.50W / 10 minutes
TYPE V	Very rarely burns, tans very easily (dark brown).	3.25W / 10 minutes
TYPE VI	Never burns, never tans (deeply pigmented dark brown to darkest brown).	2.75W / 10 minutes

Please review the Warnings & Precautions in the Epic X user manual at biolase.com/Epic-X-UserManual

8 LASER DOCUMENTATION

- ✦ Documentation needs to be comprehensive
- ✦ Laser manufacturer, brand, and type (eg. BIOLASE, Epic Hygiene, diode [soft tissue])
- ✦ Tip diameter, length & spot size
- ✦ Emission mode (continuous wave or pulsed)
- ✦ Energy/power settings
- ✦ Area treated
- ✦ Time of exposure
- ✦ Eye protection worn- wavelength specific
- ✦ **If it wasn't documented, it didn't happen!**

Pocket Therapy (LBR) Example

- ✦ Pocket therapy performed prior to Prophylaxis on FM (full mouth) total time 4 minutes
- ✦ BIOLASE Epic Hygiene 980 nm soft tissue laser used
- ✦ E4-4 mm non initiated tip used 0.5 watt (average peak power) used on pulsed mode CP10
- ✦ LGU (laser safety glasses used) by clinician(s) and patient

Perio Debridement Example

- ✦ Laser soft tissue debridement performed on UR and LR quadrants for soft tissue management — total time: 16 mins
- ✦ BIOLASE Epic X 940 nm soft tissue laser used
- ✦ E-4 4 mm Initiated tip, 0.8 W (avg. peak power) used on pulsed mode CP50
- ✦ LGU (laser safety glasses used) by clinician(s) and patient
- ✦ Vitamin E Placed on areas treated
- ✦ Post op was given

Aphthous Ulcer or Herpetic Lesion Example

- ✦ BIOLASE Epic Hygiene Diode laser 980 nm used
- ✦ Used for aphthous ulcer/ herpetic lesion on (state location and size) ex: 3x3 mm lesion on UL labial mucosa
- ✦ E4-4 mm uninitiated tip, non-contact mode used
- ✦ Initial 0.7 W used (average peak power) used on continuous wave mode. Increased to total to 0.8- 1.1 W, over 3-5 cycles (state cycle used) of 30-90 seconds per cycle — total time of: X
- ✦ LGU (laser safety glasses used) by clinician(s) and patient

9 LASER BREAKDOWN

- ✦ Turn the Laser off using the power button on backside of laser console
- ✦ Tips are a single-use, they go into a sharps container; Do not re-use
- ✦ Throw away any tape covering you used
- ✦ Squeeze buttons on handle to remove handpiece; clean the handpiece with CaviWipes, place in bag and autoclave
- ✦ Wipe the laser console and fiber optic cable with CaviWipes (be careful with the fiber, do not bend sharply or run over cord with chair)
- ✦ Wash laser safety glasses with antibacterial soap only!
- ✦ If laser battery is low- leave on and plugged in to fully charge
- ✦ Wind cord into the storage channel if done using for the day

10 TROUBLESHOOTING

Refer to the laser's user manual for Error Code and trouble shooting. Contact the laser manufacturer if issues persist. **Call 800.321.6717 between 6:00 a.m. and 5:00 p.m. PT or email Diodeservice@biolase.com**

11 ADDITIONAL RESOURCES

To order Tips, accessories or replacement parts for your Epic Soft Tissue Laser Systems, please visit **Store.biolase.com**.

Marketing your laser services to your patients is important to the success of your practice. Visit **MarketMyLaser.com** for marketing resources and materials.

Download the Epic X user manual at **biolase.com/Epic-X-UserManual**



Download the Epic Hygiene user manual at **biolase.com/Epic-H-UserManual**





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