





INTRODUCTION

Laser root canal procedure begins with either minimally invasive laser access, which reduces smear layer creation, or access with a bur.

PATENTED RADIAL FIRING TIP

A radial firing tip is especially designed to output energy only from the cone of the tip, maximizing laser treatment efficacy.



OPTIONAL STEP: CORONAL CONDITIONING

Tip: RFT2-17mm or RFT3-17mm

Power: 1.5W Energy: 75mJ Air: 20

Water: 90 Pulse: 20Hz Mode: H

Hover the laser tip ~2mm above the canal orifice. Activate the laser for 30 seconds, rest, then activate for 30 seconds more. This step removes biological debris and calcifications in the chamber.



INTRACANAL DEBRIDEMENT

Tip: RFT2-21mm, RFT2-25mm (0.25mm diameter)
Power: 1.25W Energy: 25mJ Air: 20
Water: 20 Pulse: 50Hz Mode: H

Prepare the canals to working length with instrumentation of choice, and flood the canal

with water.



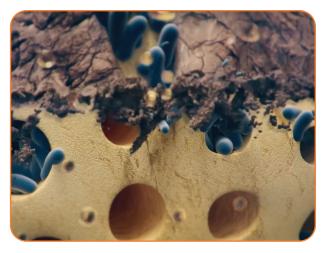
Place tip 1-5mm short of working length, or level of obstruction. Activate the laser <u>ONLY</u> while withdrawing the tip. Withdraw at 2mm/sec.



The laser energy vaporizes water and forms a vapor bubble at the tip. When the bubble collapses, a pressure wave & cavitation microbubbles are created.¹



Cavitation bubbles and pressure waves clean canal walls by removing smear layer and destroying biofilm.²



Dentinal tubules are opened, facilitating deeper lateral cleaning through the unique YSGG wavelength and proprietary Radial Firing Tip.^{2,3}

Repeat the **Intracanal Debridement** step 3-4 times per canal.

RADIAL DISINFECTION

Tip: RFT2

Power: 1.25W Energy: 25mJ Air: Off (0) Water: Off (0) Pulse: 50Hz Mode: H



Flood the canals with irrigant of choice. Place tip 1-5mm short of working length. The laser energy creates turbulent flow in the wet canal, eliminating possible apical vapor lock.⁴ Activate the laser ONLY while withdrawing the tip. Withdraw at 2mm/sec.



The laser energy creates cavitation effects and pressure waves, causing deeper irrigant penetration into the dentinal tubules, dislodging bacteria from tubule walls, enhancing irrigant efficacy, and further reducing bacteria.³

The **Radial Disinfection** step is repeated 3 times per canal and per irrigant.

LASER RINSE (OPTIONAL)

Tip: RFT2

Power: 1.5W Energy: 75mJ Air: 20 Water: 90 Pulse: 20Hz Mode: H



To remove chemical irrigants, hover the laser tip ~2mm above the canal orifice. Activate the laser for 30 seconds, rest, then activate for 30 seconds more.

Use paper points to dry canal, then seal and obturate using your preferred technique.

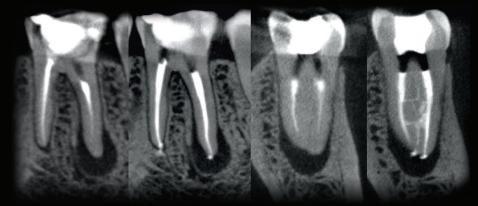




Image courtesy of Dr. Francisco A. Banchs

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- → Improve Efficiency within Your Workflow
- → More Productivity and Less Fatigue
- Less Post-Op Patient Discomfort
- ★ Exceptional Fluid Dynamics

- → Conserve more natural tooth structure
- Greater access to lateral canals and the critical apical third
- Single-visit endo fast procedures with reduced chemical medicaments



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

— Charles Maupin, DDS, DMD, MSc



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