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RFPT5-14 tip

RFPT Kit No. 7200828 (2-pack) and 7200109 (10-pack)  
To reorder and for information call Biolase at (800) 321-6717

**Waterlase MD™ Er, Cr: YSGG assisted New Attachment Procedure**

The Waterlase MD Er,Cr:YSGG system has numerous applications for cutting, removing, shaping and contouring hard and soft tissues, including periodontal therapy. These clinical indications also include Er,Cr:YSGG assisted New Attachment Procedure. This procedure promotes cementum-mediated periodontal ligament new attachment to the root surface in the absence of long junctional epithelium.

Following is a basic reference guide to procedural steps, laser settings and technique for using the Waterlase MD, Er,Cr:YSGG laser to treat periodontal pockets. The objective for this procedure is to remove diseased, infected, inflamed and necrosed soft tissue and calculus within the periodontal pocket to improve clinical indices including gingival index, gingival bleeding index, probing depth, attachment loss and tooth mobility.

**Warnings & Precautions:**

**Eyewear:** Doctor, patient, assistant and all others inside the operatory must wear appropriate laser protective eyewear for the 2.78 μm wavelength (OD 4). Use caution when using the tip inside the periodontal pocket. Excessive force could break the tip and inconvenience your patient. Laser protective magnification loupes are recommended for this procedure.

Do not direct air or spray toward tissue that may entrap air or water. Exercise caution when working inside the pocket without continuous water flow. Hard tissue structures that come in immediate contact with the laser energy in the absence of water could be damaged. Make sure to maintain a consistent water flow during the entire treatment, especially in the deeper areas of the pocket.

**Procedure**

After routine periodontal evaluation through radiographic and clinical examination and assessment of probing depth, gingival recession, clinical attachment level, hyperplasia, bleeding on probing, plaque, suppuration, bone loss, furcation and mobility, proceed with the following steps:

**STEP 1 Anesthesia**

Apply anesthetic to the treatment site as needed. Topical anesthetic is usually adequate.

**STEP 2 Troughing and Inner Epithelium Lining Removal**

**Settings**

Step 2	Tip	Power	Pulse Rate	Air	Water	Mode
Troughing & Inner Epithelium Removal	RFPT5-14	1.5W	30Hz	11%	20%	H

Select settings as provided in the table above, using an MD Gold Handpiece

Place tip in contact with the gingival crest, parallel to the long axis of the tooth (Fig 1). Activate laser and start moving along the gingival margin to prepare a trough all the way to the crest of the bone. This trough will allow for increased visibility and access and to initiate removal of diseased epithelium lining. The radial and forward cutting action of this tip allows for effective separation and simultaneous removal of the inflamed and diseased epithelium lining. The narrow tip glides easily to allow minimally invasive treatment of the entire epithelium lining all the way to the bottom of the pocket.

Alternatively, a bottom-up technique can be used in which the laser is fired only when moving the tip coronally. The protocol is optimized for safety and efficacy using either one of the techniques.

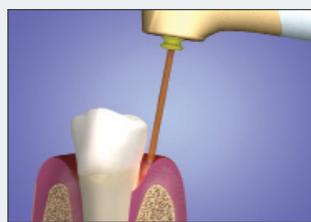


Figure 1

**STEP 3 Calculus Removal**

**Settings**

Step 3	Tip	Power	Pulse Rate	Air	Water	Mode
Calculus Removal	RFPT5-14	1.5W	30Hz	11%	20%	H
Root Surface Smoothing	RFPT5-14	1.5W	50Hz	11%	20%	H

A hand or ultrasonic scaler may be used prior to the laser.

Use Calculus Removal settings provided above. Calculus removal is performed with the fiber tip at 10-15 degrees angle against the surface moving up and down in one pass followed by a side-by-side pass. With loupes, check after first passes for remaining calculus and repeat until the root surface is completely clean.

Use the Root Surface Smoothing settings to refine the root surface.

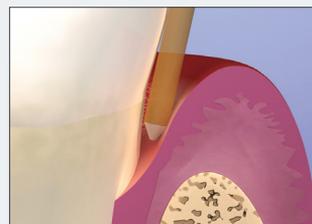


Figure 2

## STEP 4 Outer Epithelium Lining Removal

### Settings

Step 4	Tip	Power	Pulse Rate	Air	Water	Mode
Outer Epithelium Removal	RFPT5-14	1.5W	30Hz	11%	20%	H

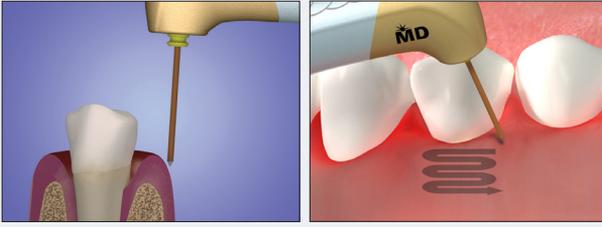


Figure 3

Remove the outer epithelium using the same tip. Use laser settings provided for Outer Epithelium Removal. Position the tip parallel to and approximately 1 mm away from the outer gingiva (Fig 3). Angle the end of the tip slightly toward the surface. Activate the laser and move the tip over a 5 mm area from the gingival margin apically. The tissue surface is altered only enough to disrupt the epithelium layer, without significant tissue removal.

## STEP 5 Pressure Clot

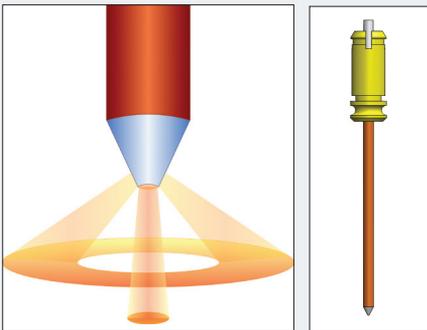
Insert a curette into the pocket to push the gingiva away and visualize the root surface. The surface should be clean and free of any calculus deposits. Applying external pressure should produce a thin layer blood clot inside the pocket. Hold and press a wet gauze in place over the outer area of the pocket for approximately 3 minutes to achieve this effect. Seal the clot within the sulcus by applying a barrier such as surgical glue (cyanoacrylate) along the gingival margin using a pipette. This seal is necessary to provide a barrier from external debris that might interfere with proper initiation of healing of the treated pocket. The first probing should be performed 3 months after the treatment.

### Post-operative Patient Instructions

Do not to use a toothbrush for the first 24 hours after the procedure. Rinse with Peridex™ or other chlorhexidine solution two times per day for 2 weeks post-treatment. After 24 hours, start brushing again using a soft-bristle toothbrush and toothpaste, floss daily, and use an over-the-counter mouthwash rinse after the 2-week Peridex regimen. Schedule follow-up visits, including the first probing at 3 months. Some offices bring the patient back on a routine basis for coronal polishing and post-operative evaluation prior to the 3-month follow-up.

### Single Use Non-Sterile Tips Included

1. Use only as specified in this guide.
2. Tip may break if excessive force is applied.
3. Dispose of tip in sharps container after single use.



Specifications	RFPT5-14
Tip Diameter	580µm
Tip Length	14mm
Max Power of Operation	4.0W
Calibration Factor	0.80

Disclaimer: Only licensed professionals who have successfully completed training should use this instrument. Always start treatment at the lowest power setting and increase as required. Closely observe the clinical effects and use your judgment to make appropriate adjustments to compensate for varying tissue compositions, density and thickness. Use your clinical judgment to decide the clinical protocol and whether any additional laser or conventional instrumentation is required. It is important to note that sound principles of periodontal treatment have not been affected by using this technique. Protocols that constitute correct periodontal treatment remain within the scope of the operator's clinical judgment and experience.

U.S. Patent Numbers: 4,940,411; 5,116,227; 5,151,029; 5,232,367; 5,257,935; 5,267,856; 5,324,200; 5,342,198; 7,421,186. Other U.S. and Int'l Patents Granted and Pending

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