LASER Gum Disease Treatment – The alternative to Surgery

By Juan Teodoro, D.M.D.

Periodontal disease affects four out of five people over the age of 35. In its early stages it's known as gingivitis, and if it progresses to a chronic condition it can result in periodontitis, which affects the bones surrounding the teeth. When left untreated it causes bone destruction, which can result in the loss of teeth. Because this disease is usually painless until it has reached its advanced stage, many adults are in danger of losing their teeth before they're even aware there's a problem. While it's hard to know if you have it or not, there are some noticeable symptoms that can be indicative of periodontal disease. They include bleeding gums during tooth brushing, swollen or tender gums, receding gum lines, loose teeth, chronic bad breath, a change in the way the teeth fit together when you bite down, pus between teeth and gums or a change in the fit of partial dentures.

Traditionally, when dealing with advanced periodontal disease, patients have to undergo gum surgery, an invasive procedure that involves cutting and folding back the gum tissue to gain access to the roots and surrounding bone. Then the periodontist will clean the bacteria from the tooth roots, and trim

and reshape the bone around the teeth using a drill and sharp hand instruments. The gums are then placed back and stitched in place. This traditional method is usually quite painful and more often than not, leaves patients in discomfort for days.

There's another procedure, however, that makes treating periodontal disease easier and virtually pain-free. It's known as the Laser Assisted New Attachment Procedure (LANAP) and involves the use of the PerioLase laser. This is the first and only FDA approved laser method used to treat periodontitis.

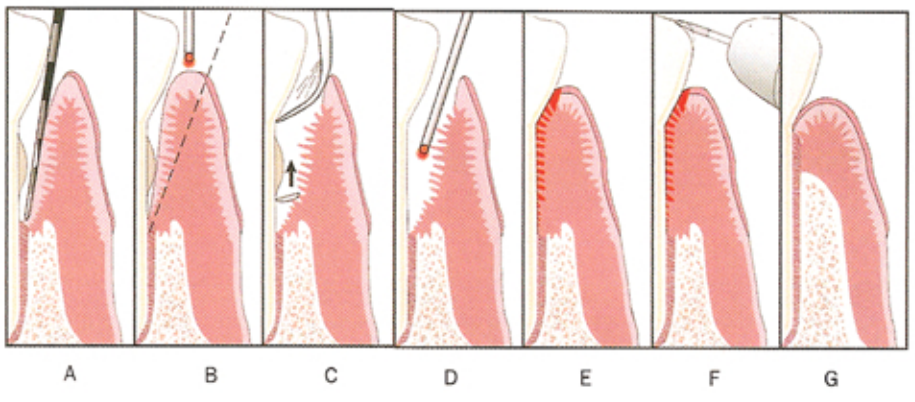

Figure 1. Laser periodontal therapy, step-by-step technique. (A) Periodontal probing indicates excessive pocket depth. (B) Laser troughing: free running pulsed Nd:YAG laser irradiation, at 100 µsec to 150 µsec pulse duration. Beginning at the gingival crest (not into the sulcus at first). Troughing provides visualization of and access to the root surface by removing necrotic debris, releasing tension, and controlling bleeding. It further defines tissue margins preceding ultrasonic and mechanical instrumentation, preserves the integrity of the mucosa, and aids maintenance of the gingival crest. (C) A piezo-electric scaler, small curettes, and root files are used to remove root surface accretions. (D) A second pass with the laser at 150 µsec to 650 µsec pulse duration finishes debriding the pocket, provides hemostasis, and creates a "soft clot." (E) The tissue is compressed against the root surface to close the pocket and stabilize the fibrin clot. (F) Occlusal trauma is adjusted with a high-speed handpiece, and mobile teeth are splinted. (G) New attachment (new bone, cementum, and PDL) is achieved.

It considerably shortens treatment time with fewer complications, less chance of recurrence, and far less pain. It means fewer appointments and a shorter duration of time to clean up the bacteria. There is less bleeding and swelling and most patients are able to return to work the very same day.

The laser beam that is used has the width of about three hairs, which makes it possible for no flesh to be cut during the procedure while still accomplishing everything the traditional procedure could.

What PerioLase does is remove the diseased tissue, killing the bacteria in the process. As the beam moves, the cuts are cauterized, leaving the healthy tissue unharmed, also resulting in a clean and sterilized wound. The blood from the wound is coagulated by the laser, allowing it to reattach to the tooth and seal it off, letting the body heal itself. This is made possible because the diseased tissue is the color of the wavelength the laser is calibrated to affect, while the healthy tissue is a lighter color, therefore leaving it undamaged by the beam.

The total cost of this procedure runs about the same as the traditional surgery would, and it is covered by insurance. Typically it's even less since there is no need for costly bone grafting. Ultimately, it would depend on how much work the patient needs.

Why it's a revolutionary procedure, many periodontists have been averse to adopting the new technology. The traditional surgical methods have been used for decades and some are uncomfortable with giving those up; while another reason is that the equipment is too expensive.

Dr. Teodoro of Bonita Springs is the only periodontist in both Lee and Collier County who is trained and certified in the Laser Assisted New Attachment Procedure with the PerioLase. He believes that LANAP is the future of periodontal disease treatment and says, "PerioLase does the same thing for periodontal treatment that Lasik did for eye surgery." ***If you require a 2nd opinion, call Dr. Teodoro's office for a complementary consult to learn more about the PerioLase LASER alternative.***

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