

# LANAP<sup>®</sup>

Laser Assisted New Attachment Procedure

For several years, a controversy has been brewing over treatment of the periodontal patient and appropriateness of referral to a periodontist.

**Central question remains:  
What is best for the patient?**

**“We all think that cholesterol  
is important to heart disease.  
The health of your gums is a more  
important predictor of whether you  
will have a heart attack or not.”**

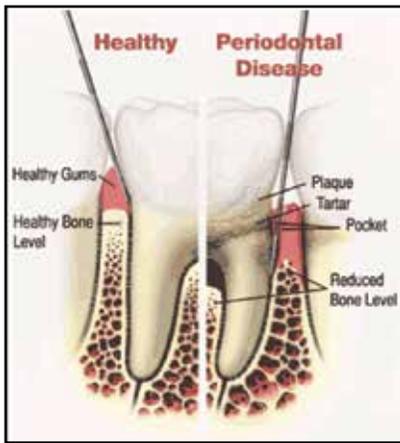
**Mehmet C. Oz, M.D., FACS**  
Director, Cardiovascular Institute  
Columbia University Medical Center, New York, NY  
ABC News, Good Morning America  
12-15-08

**“In a study of more than  
51,000 male doctors, the men with  
a history of gum disease were at 64% higher  
risk for pancreatic cancer, compared with  
those with healthy mouths.”**

**The Wall Street Journal**  
January 23, 2007

## **Your gums. Your health.**

The health of your mouth, teeth and gums has a direct impact on your overall health. Recent reports have linked gum disease with heart disease, stroke, diabetes, and low-birthweight babies. Furthermore, researchers have found that a history of gum disease can increase the risk of pancreatic cancer by 64%. Fact is, the bacteria that cause gums to become inflamed can travel throughout the body.

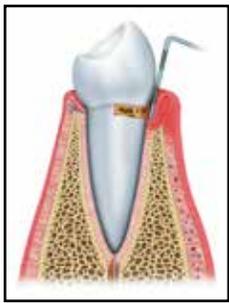


## Periodontal Probing

Periodontal probing is the essential tool in diagnosing gum disease. A probe, with ruled millimeter markings, is used to measure the depth of the space between the teeth and gums. Normal measurements range between 1 and 3 millimeters. Depths greater than this may indicate gum disease.

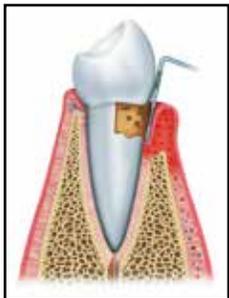
## What is Periodontal Disease?

Periodontal disease starts when tartar and bacteria trapped under the gumline lead to infection. As a result, the gums become inflamed. Eventually, pockets form between tooth and gum, making plaque harder to remove. Left untreated, the disease advances and bone damage occurs. Ultimately, this can lead to the extraction of one tooth, or more.



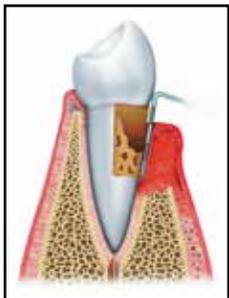
### Gingivitis

This is the mildest form of periodontal disease. The gum becomes inflamed. The space between gum and tooth deepens, forming a pocket. Gums may become red and swollen, or may bleed when probed. Or, there may be no symptoms. Gingivitis can often be reversed with dental cleanings and regular brushing and flossing. If left untreated, it can progress to periodontitis.



### Periodontitis

With periodontitis, infection and inflammation spread to the bone supporting the teeth. Ligaments break down and the gums may recede. Pockets deepen and can be difficult to keep clean. Redness, swelling and bleeding may develop or worsen. Bacteria multiply, and infection begins to destroy the bone.



### Advanced Periodontitis

As periodontitis advances, pockets deepen even more and can fill with pus. Around the roots of the teeth, the gums may start to swell. Bone loss continues. The teeth may feel sensitive to heat or cold, and may hurt when brushed. Teeth loosen due to loss of bone and ligament. In some cases, teeth may need to be removed to keep periodontal disease from spreading.

## YOUR TREATMENT OPTIONS

### • NONSURGICAL

These treatments create conditions that are conducive to healing the tissues in the mouth. This is achieved by reducing plaque, infection and other causes of periodontal disease. A reevaluation is necessary in four to eight weeks.

Primarily, these treatments are the prescribed course of action for mild cases of gum disease. If successful, they will eliminate your need for surgery. However, if your periodontal issues are of a more serious nature, these treatments will fall short in bringing your gums and mouth back to health.

### Scaling and Root Planing

This treatment is performed by a dentist or a dental hygienist. Plaque and tartar are removed (scaling) and the root surfaces are smoothed (root planing). Sometimes a special ultrasonic device is used to remove heavy deposits. This helps keep the area free of bacteria and may help ligaments to reattach, reducing pocket depth.

### Antibiotics

Infection can be treated with antibiotics, which decrease bacteria. Pills may be prescribed. Or the antibiotic may be placed directly into the infected pocket.

## Why you need to do something. Inaction is not an option.

Periodontal issues will not heal themselves. It's important for everyone to take the proper actions to return their gums to health. And there are those for whom the health of their gums is particularly important. Among them, people who are susceptible to bacterial pneumonia. This group includes people prone to respiratory infections, those with compromised immune systems and the elderly.

Studies also indicate that pregnant women who have gum disease may be at increased risk for pre-term delivery, which in turn increases the risk of having a low-birthweight baby.

People with diabetes often have periodontal disease. Recent studies show that periodontal disease can make it more difficult for diabetics to control their blood sugar.

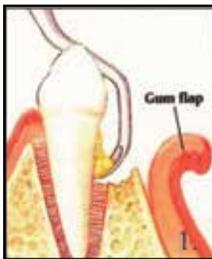
If periodontal disease in diabetics is treated, their sugar control can improve.

## YOUR TREATMENT OPTIONS

### • SURGICAL

#### **Flap Surgery – Amputation of the gum tissue and reshaping of the bone.**

Traditionally, when nonsurgical treatments failed, flap surgery was the prescribed course of action for pocket reduction. In this procedure, the gum is separated from the tooth and later reattached in a new position. In most cases, osseous surgery is also performed. This involves reshaping and smoothing the bone.



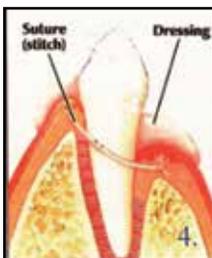
The gum is first lifted and rolled back, creating a “gum flap.” Tartar is removed from the root. The surgeon also removes diseased gum tissue.



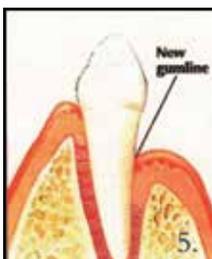
If needed, the bone is smoothed and reshaped. This reduces pits and rough areas where bacteria grow.



A substance may be applied to the root to help the ligaments and gum reattach. Instruments may be used to cauterize (seal off) the areas and reduce bleeding.



The gum flap is sewn shut in a position that reduces pocket depth. A dressing may be used to protect the area. A bit like clay or putty, this dressing remains in place until removed by your dentist as a follow-up visit.



Once the gum is healed, the stitches dissolve or are removed. If used, the dressing is removed by your dentist. The pocket is now shallower.

*After flap surgery is complete, the gumline will most likely be lower, leaving more of the tooth exposed. If the root is exposed, ongoing treatment with fluoride or another material may be needed to reduce sensitivity.*



**Extraction/Implant – If bone loss is considerable, it may be appropriate to extract a tooth and insert an implant.**

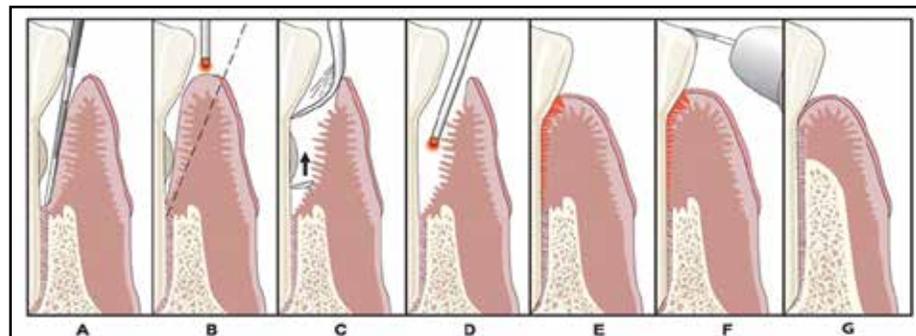
## YOUR TREATMENT OPTIONS

### • The LANAP<sup>®</sup> Protocol

## The laser alternative to gum surgery.

Now there's a new, less traumatic treatment for periodontal disease. The LANAP<sup>®</sup> (Laser Assisted New Attachment Procedure) protocol utilizes safe and proven laser technology to gently remove harmful bacteria and diseased tissue from the gums. With this new procedure, only the diseased tissue is removed and the height of the tissue around the tooth is maintained. The LANAP<sup>®</sup> treatment controls periodontal disease and makes it possible to save and restore healthy teeth that may otherwise have to be extracted.

This removal of bacteria allows the body to heal naturally so the gum pockets improve and the teeth become more stable. But, with the LANAP<sup>®</sup> protocol, there is less pain, and since the gum tissue is not cut with a scalpel, there are no stitches, minimal bleeding, and a quicker, much easier recovery.



- A. Perio probe indicates excessive pocket depth
- B. Laser radiation vaporizes bacteria, diseased tissue, pathologic proteins, and alerts the practitioner to the presence of tartar
- C. Ultrasonic scaler and special hand instruments are used to remove root surface accretions
- D. Laser finishes debriding pocket and aids in hemostasis
- E. Reattachment of rete ridges to clean root surface, with a stable fibrin clot at the gingival crest to create a “closed system”
- F. Occlusal trauma adjusted
- G. New attachment is regenerated

## The LANAP<sup>®</sup> Protocol

A procedure that brings your entire mouth back to health.

# Why the LANAP® Protocol?

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## LANAP®

24-hour recovery time with minimal discomfort

98% of laser-treated patients remain stable after five years

Greater predictability for reattachment of gum tissue and bone regeneration

Less time in dental chair – only takes two 2-hour visits

Reduced risk of infection, decreased sensitivity and less bleeding

Little to no gum recession

Less invasive

## Alternatives

Tooth extraction and Dental implants

Flap surgery – 2-4 week recovery and there can be considerable pain and swelling

With all alternatives, there can be increased bleeding, swelling and discomfort to the patient

Scaling and Root planing can be used to maintain a pocket depth, but has a minimal effect on pocket reduction or bone regeneration

Dentures



*Safe for patients with health concerns such as diabetes, HIV, hemophilia, or those taking medications such as Coumadin or Cyclosporin.*

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## An FDA-cleared laser-based treatment for gum disease.

LANAP® is the only procedure that actually helps the bone supporting your teeth to regenerate. This laser-based approach to treating gum disease makes it easier for you to return your gums to health and the process is far more comfortable than gum surgery.



