

Let's Save More Teeth, Part 2

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When periodontal disease has resulted in loss of the supporting structures- gingiva, alveolar bone, periodontal ligament, and cementum- do we have any options beyond traditional guided tissue regeneration (GTR) surgery to save teeth? Emphatically- YES! One such option is to employ LANAP®, (Laser Assisted New Attachment Procedure). *It is critical to note that LANAP® is derived from the original GTR techniques which involve principles of stable fibrin clot formation to encourage regeneration of lost tissues.* LANAP® has been shown histologically to result in true regeneration of the alveolar bone, periodontal ligament, and cementum.

The case below by Dr. French highlights a successful outcome after LANAP®. In particular, the 69 year old female patient was aware of the changing position of #9, noting “My front tooth is protruding, it’s gotten worse lately.” #9 displayed deep probing depths with bleeding and suppuration, severe attachment loss, grade II mobility, fremitus, pathologic migration, and vertical bony defects. LANAP® was performed with special attention to root debridement and occlusal adjustment to eliminate occlusal trauma, and re-evaluation was accomplished 10 months later. As evidenced from the radiographs, significant bone fill occurred, and the clinical measurements further demonstrated successful treatment (Table 1). ***These results were accomplished with minimally invasive treatment: ZERO incisions were made and NO bone grafts or biologic agents were used!***

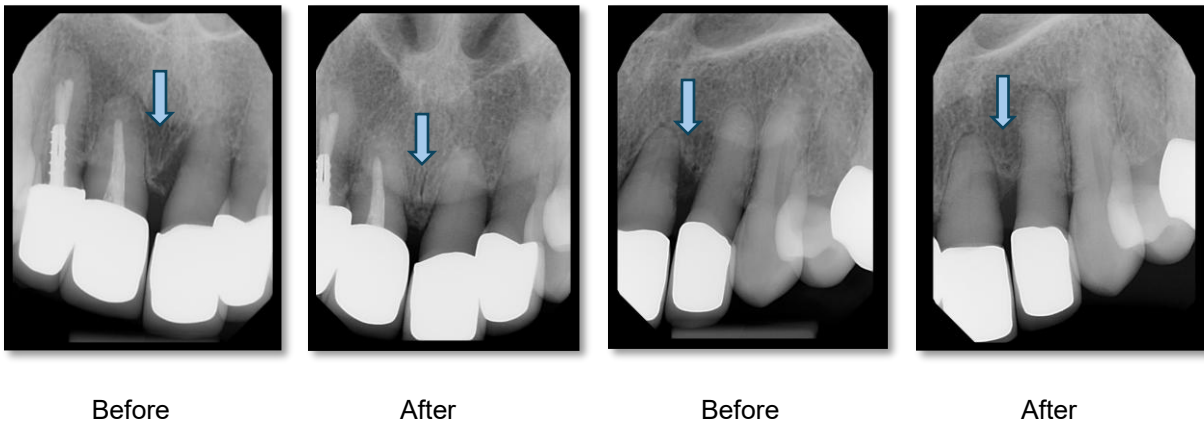


Table 1.

Pre-treatment Clinical Parameters #9	Post-treatment Clinical Parameters #9
Probing depths: 4-7 mm	Probing depths: 2-4 mm
Attachment loss: 5-9 mm	Attachment loss: 3-6 mm
Mobility: Grade II	Mobility: Grade I
Bleeding on probing (# of positive sites): 3/6	Bleeding on probing (# of positive sites): 1/6
Suppuration on probing: (# of positive sites): 3/6	Suppuration on probing: (# of positive sites): 0/6

Many challenges were present in this case. Tooth #9 is in the esthetic zone (need I say more??). Existing restorative work was extensive and would have made for difficult shade matching if an implant route had been chosen. Other challenges for implant placement also include the amount of soft and hard tissue already lost. Fortunately, the patient was motivated to maintain excellent home care and regular professional maintenance visits, and she was compliant with recommendations for an occlusal guard. As a result of case selection, professional treatments, and proper home care the patient can now expect to



maintain her teeth and smile. So, what are we waiting for? Let's save more teeth for our patients with LANAP®!

Selected References:

1. Nevins ML, Camelo M, Schupbach P, Kim SW, Kim DM, Nevins M. Human clinical and histologic evaluation of laser-assisted new attachment procedure. *Int J Periodontics Restorative Dent*. 2012 Oct;32(5):497-507. <https://pubmed.ncbi.nlm.nih.gov/22754897>
2. Yukna RA, Carr RL, Evans GH. Histologic evaluation of an Nd:YAG laser-assisted new attachment procedure in humans. *Int J Periodontics Restorative Dent*. 2007 Dec;27(6):577-87. PMID: 18092452. <https://pubmed.ncbi.nlm.nih.gov/18092452>
3. Aoki A, Mizutani K, Schwarz F, Sculean A, Yukna RA, Takasaki AA, Romanos GE, Taniguchi Y, Sasaki KM, Zeredo JL, Koshy G, Coluzzi DJ, White JM, Abiko Y, Ishikawa I, Izumi Y. Periodontal and peri-implant wound healing following laser therapy. *Periodontol 2000*. 2015 Jun;68(1):217-69. doi: 10.1111/prd.12080. PMID: 25867988. <https://pubmed.ncbi.nlm.nih.gov/25867988>