

THE INCREDIBLE ABILITY OF GUIDED TISSUE REGENERATION TO IMPROVE TOOTH LONGEVITY

The ultimate goal of periodontal therapy is to prevent further attachment loss and predictably restore the periodontal supporting structures lost due to disease or trauma. This is accomplished in a way that restores the architecture and function of the lost periodontium. The case demonstrated below is that of a 62 year old female that was interested in improving the periodontal prognosis of tooth #5 in the most effective way possible.

The **pre-treatment** radiograph to the right shows a vertical bone defect on the mesial of tooth #5. This puts the tooth at risk for future loss due to plaque and calculus accumulation into the defect.



The four month **follow-up** radiograph to the left shows elimination of the bone defect. Probing depths are 3mm. **Guided tissue regeneration treatment has improved the prognosis for tooth retention greatly.**



The pre-treatment photograph shows the periodontal probe extending down 8mm on the mesial of tooth #5. At this depth, it is not possible to visualize or access the calculus.



Photograph of tooth #5 following gingival flap elevation. Seen is the bone defect on the mesial surface. **A large deposit of calculus is trapped in the mesial concavity.**



This photograph is following debridement of the root surface. Note the elimination of the calculus that was seen in the photograph to the left. A bone graft was then placed along with a resorbable collagen membrane.

CONCLUSIONS:

- Successful periodontal regeneration results in the re-formation of an epithelial seal, deposition of new acellular extrinsic fiber cementum, insertion of functionally oriented connective tissue fibers into the root surface, and restoration of alveolar bone.
- Teeth can have anatomic features that make them vulnerable to periodontal disease. Such features include furcations, palatal gingival grooves, enamel pearls and cervical enamel projections. The above case demonstrated how the presence of a mesial concavity, which is very common for first bicuspids, contributed to the accumulation of calculus.

This case report is provided by **PERIODONTICS OF THE DESERT: Peter Warshawsky, D.D.S., and Eric Driver, D.D.S. Board Certified Periodontists.** It is meant as a way of sharing current periodontal information with the dental community. Questions and comments are welcomed by calling 674-4410.* All cases presented are actual patients of Drs. Warshawsky, Driver.