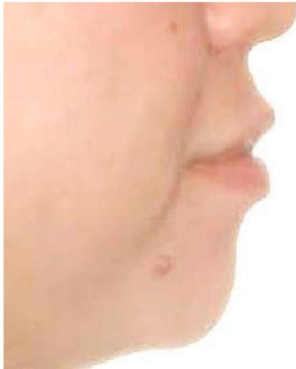
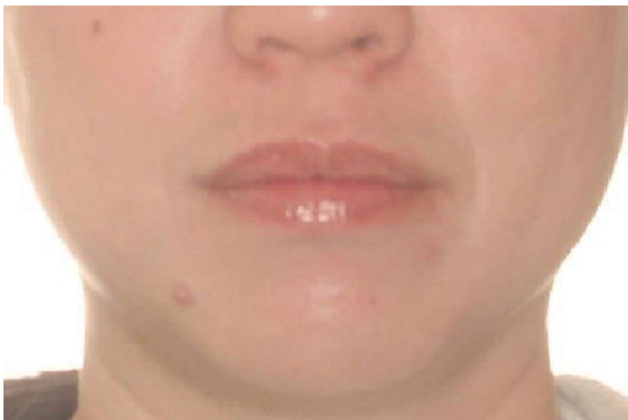
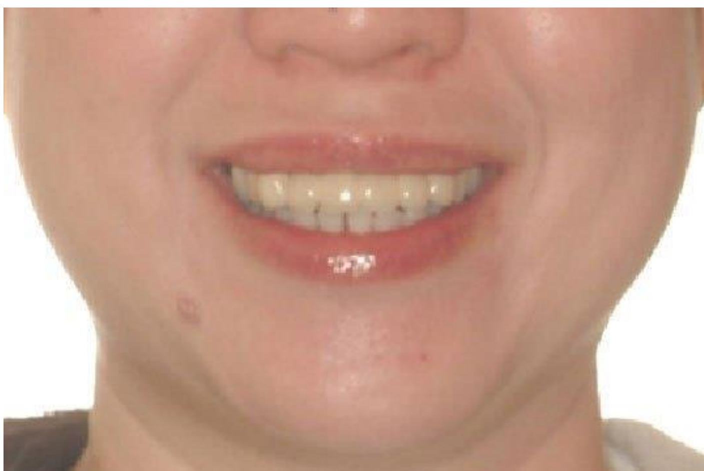
Dental Implant
TECHNOLOGIES

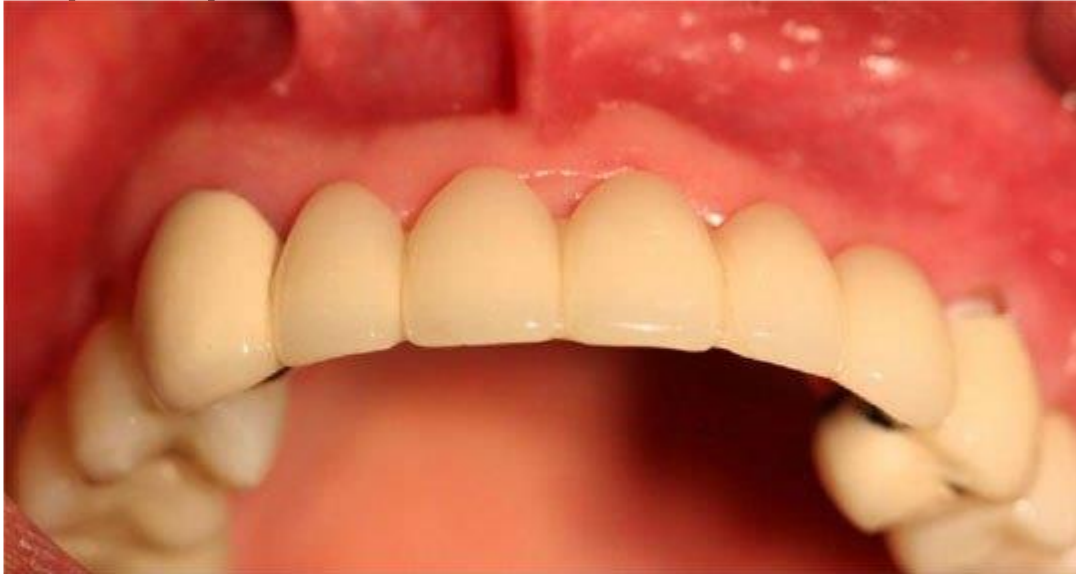
Premaxilla Ridge Augmentation



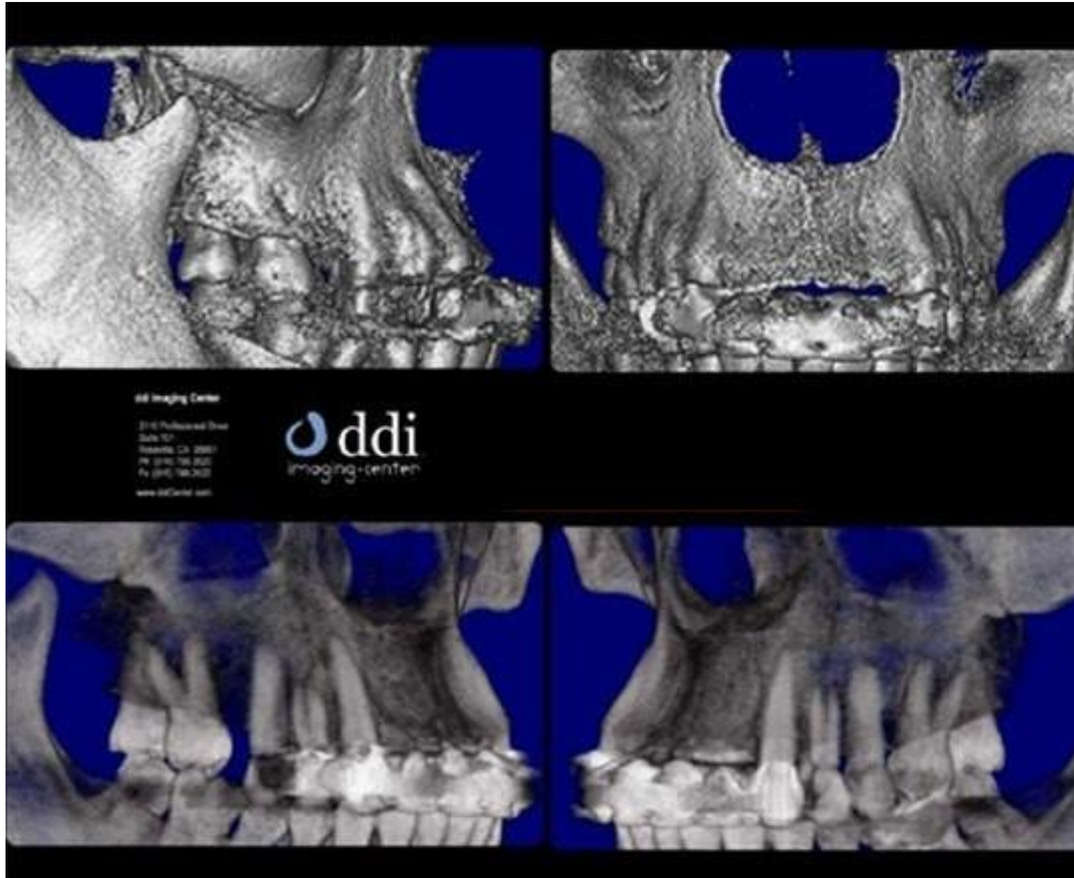




Pre-op photos. The profile photo shows a concavity underneath the nose and significant nasiolabial folds. The frontal face photo, the upper left lip rolls under the lower lip. The collapse of the premaxilla creates an unattractive smile.



Pre-op bridge 6-11. Note how there is more bone resorption apical to #10 and #11. This bone resorption is causing the patients upper left lip to roll under her lower lip.



Severely atrophic premaxilla. The lack of width of the premaxilla is not just a bone volume problem, but due to the thin ridge, there are areas where there is nearly no trabecular bone between the cortical bone plates. Trabecular bone is the source of the regenerative cells that are needed to convert the bone graft into bone. In planning a regenerative surgery, consideration must be given where the regenerative cells are located and how they will reach the bone graft, as well as how long it will take for them to migrate into the bone graft before other cells arrive or resorption occurs.

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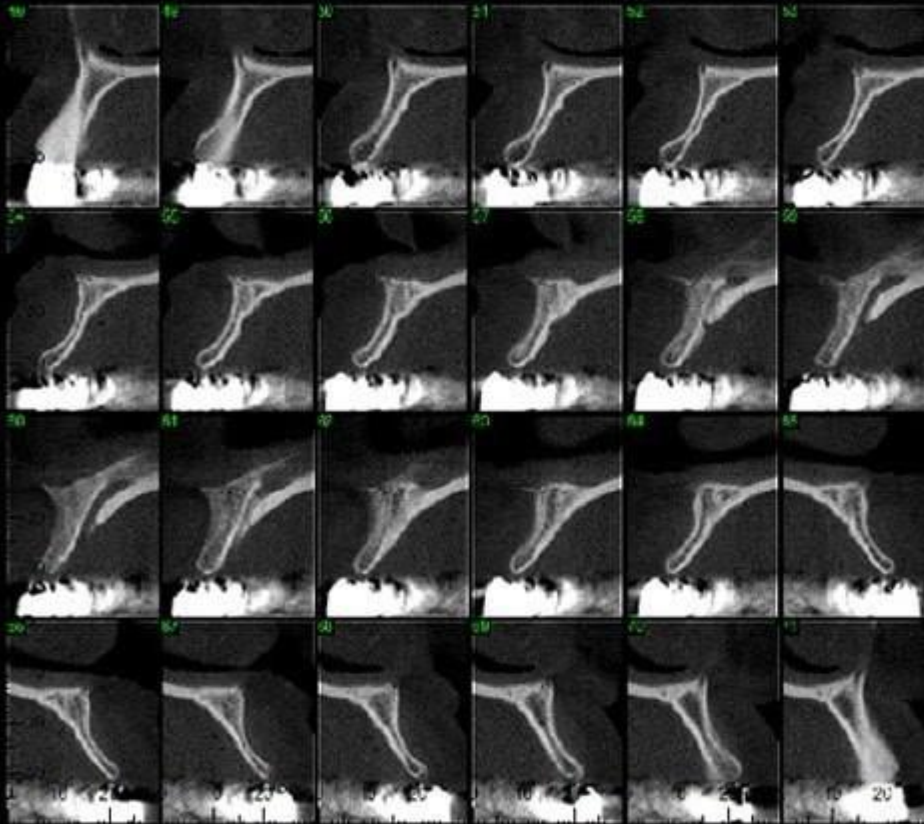
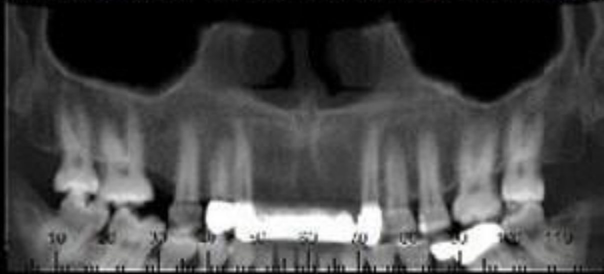
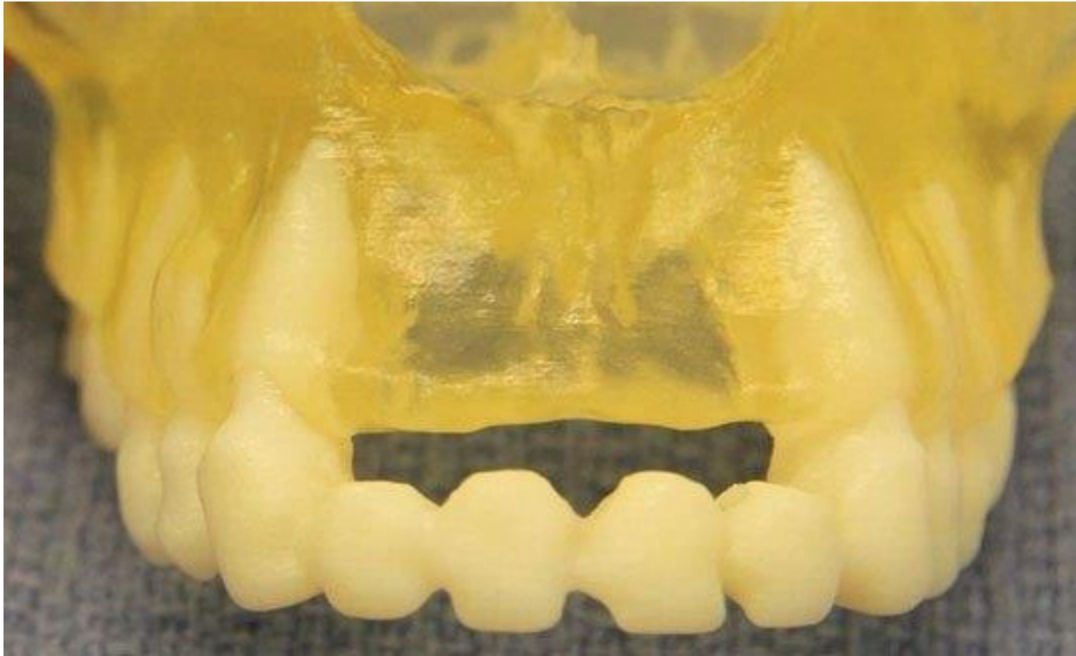


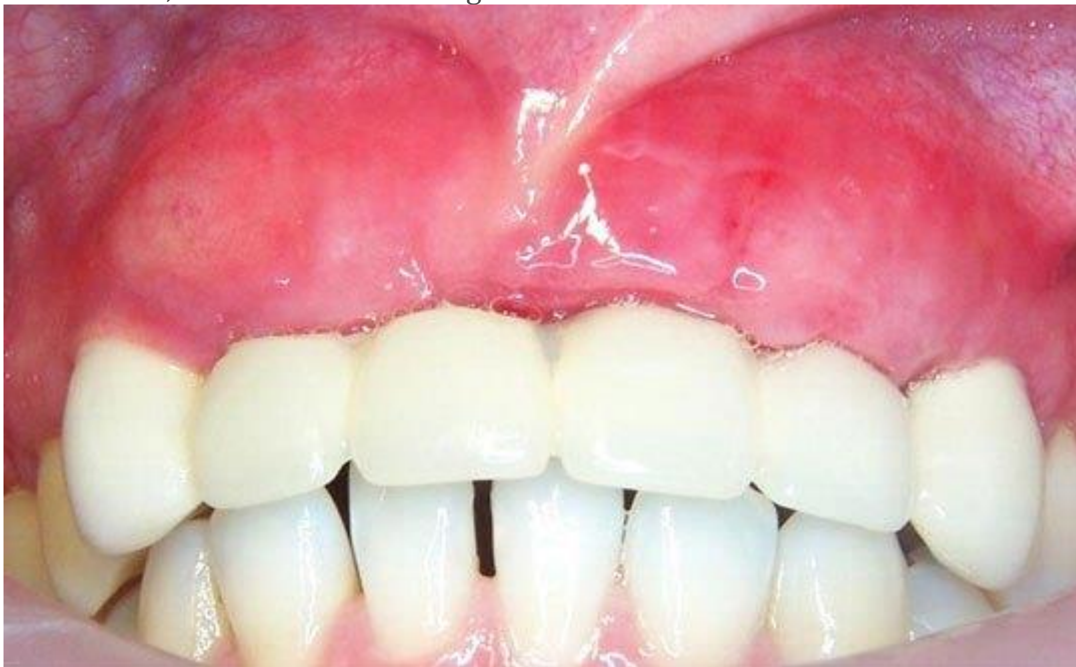


Left

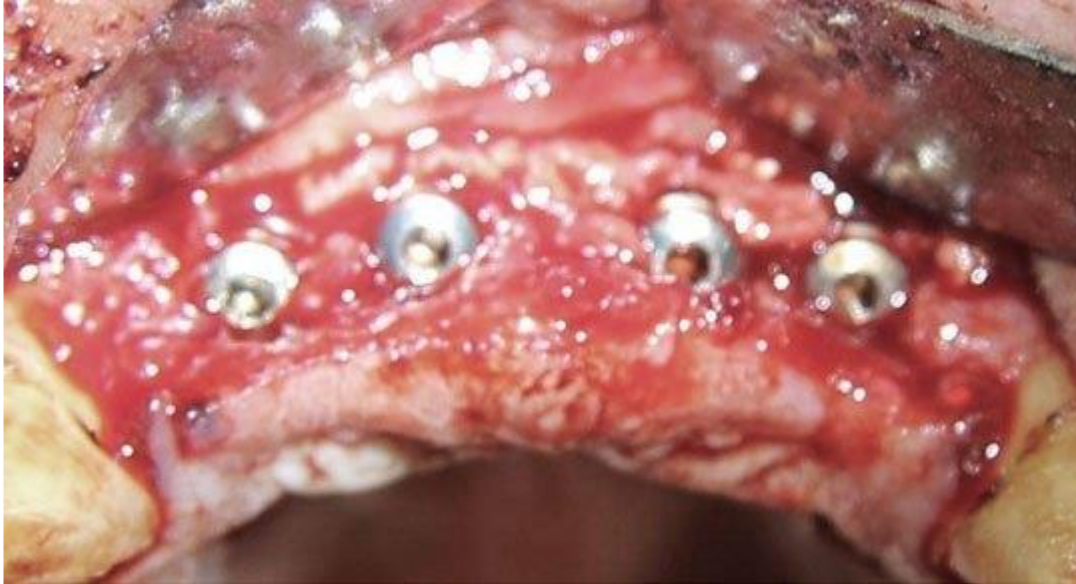
Images are true size



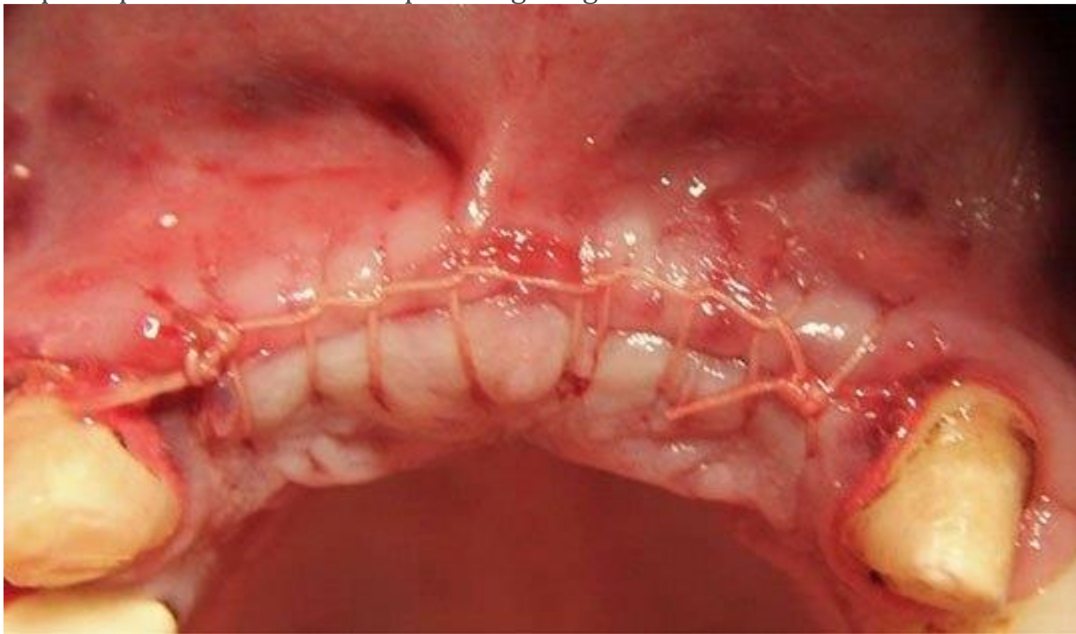
From the CT scan, a plastic model is constructed. The model is shipped to SteinerBio and the bone graft is constructed under sterile conditions. In this case, the bone graft comprises of Ridge Graft™ mixed with OsseoConduct™ beta tricalcium phosphate standard granules, covered with OsseoConduct™ Cortical Plates. The bone grafts are packaged sterile, refrigerated, and shipped to the surgeon. The surgeon opens the tissue, perforates the buccal bone, and inserts the bone grafts.



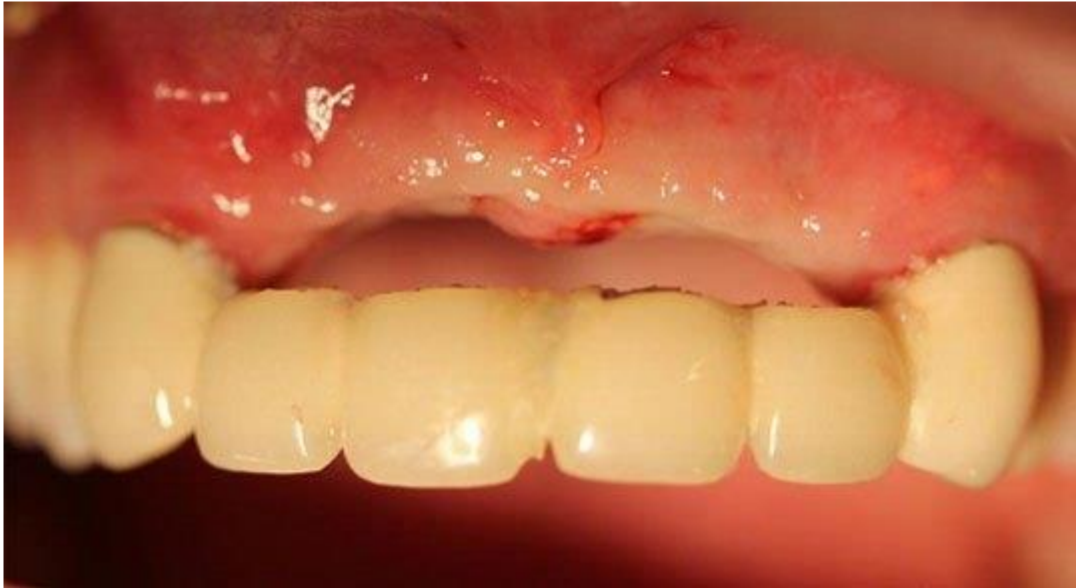
Two-week post op after grafting. The apical portion of the prosthetic crowns were removed to make room for the graft.



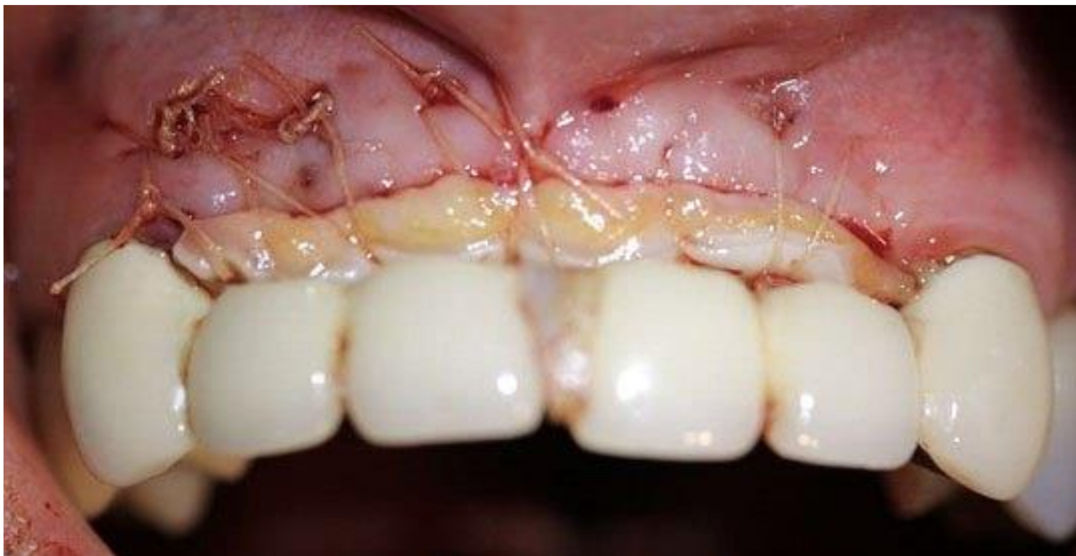
Implant placement 4 months post ridge augmentation.



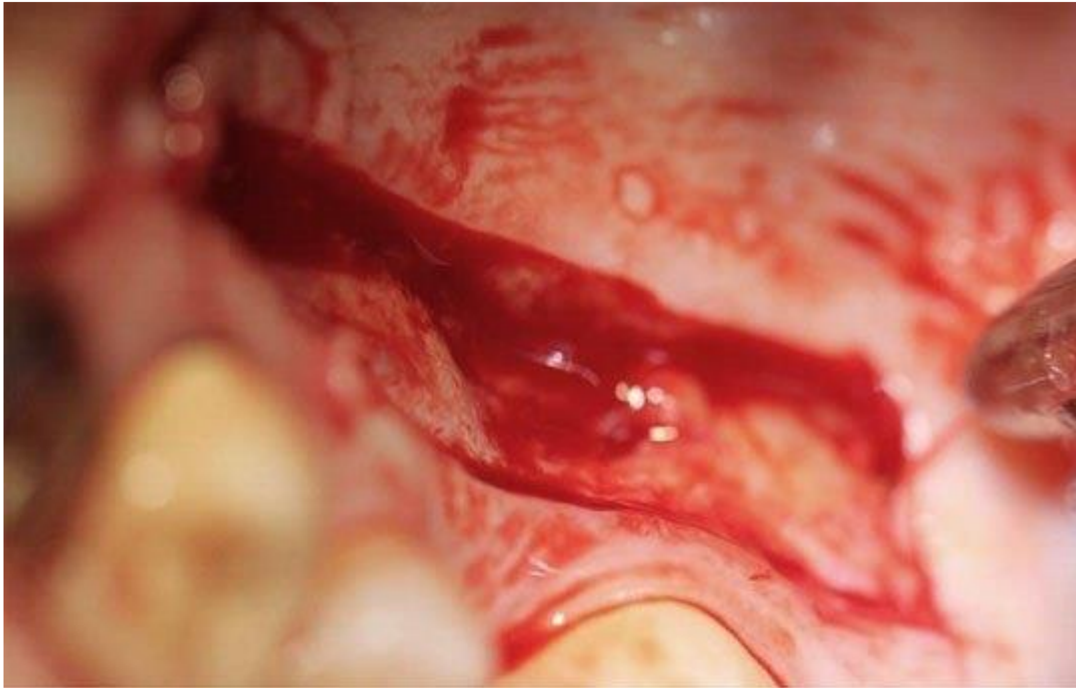
Day of implant placement.



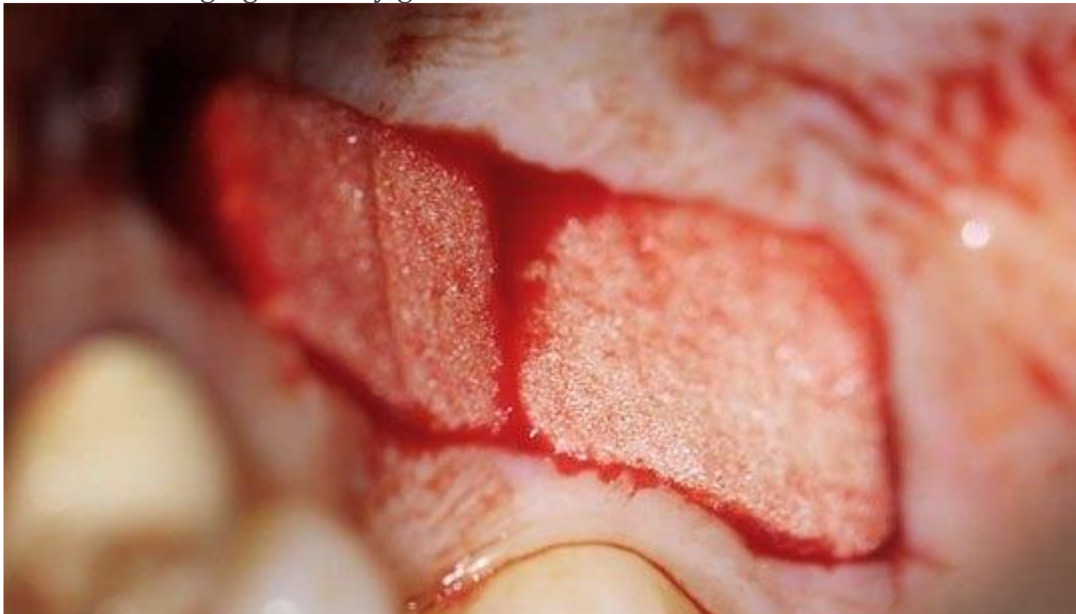
Ridge augmentation healing. Gingival tissue is usually only a few millimeters thick, especially under prosthetic appliances. However, in order to create papilla, there needs to be approximately 5mm of tissue over the alveolar bone.



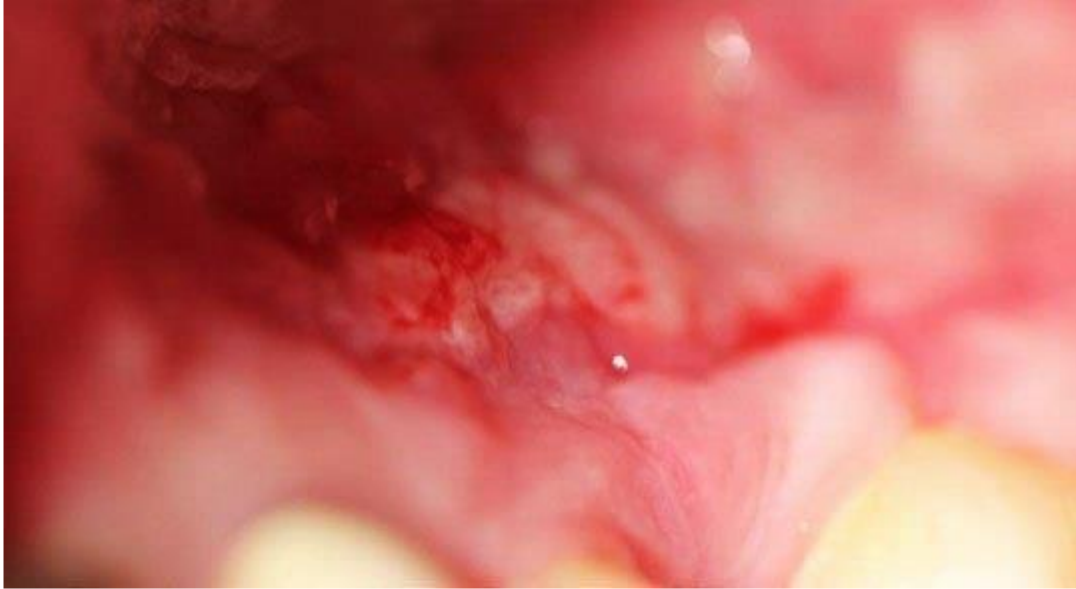
An onlay gingival graft was performed to gain gingival depth.



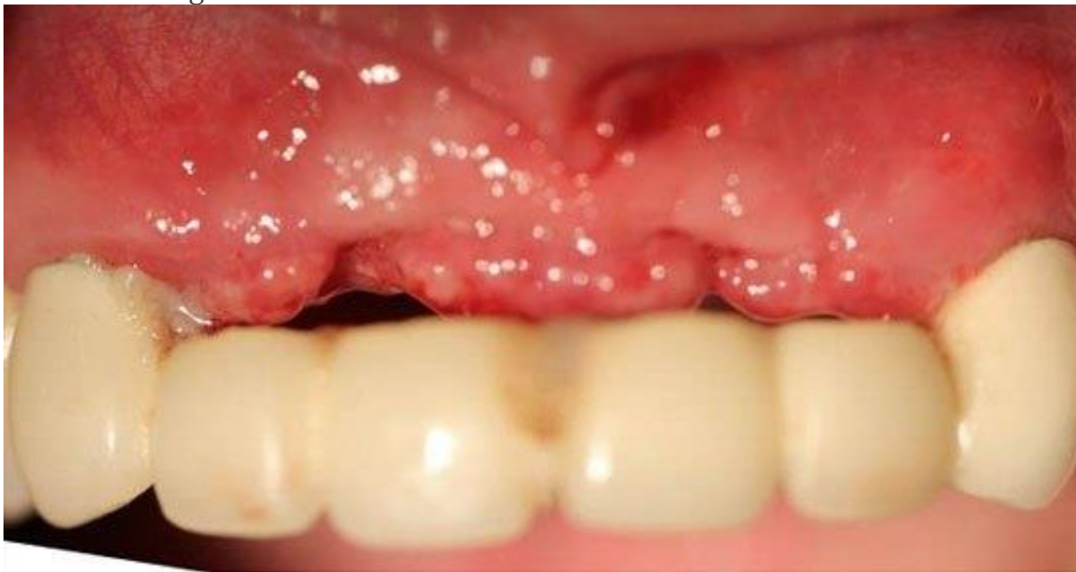
Donor site for gingival onlay graft.



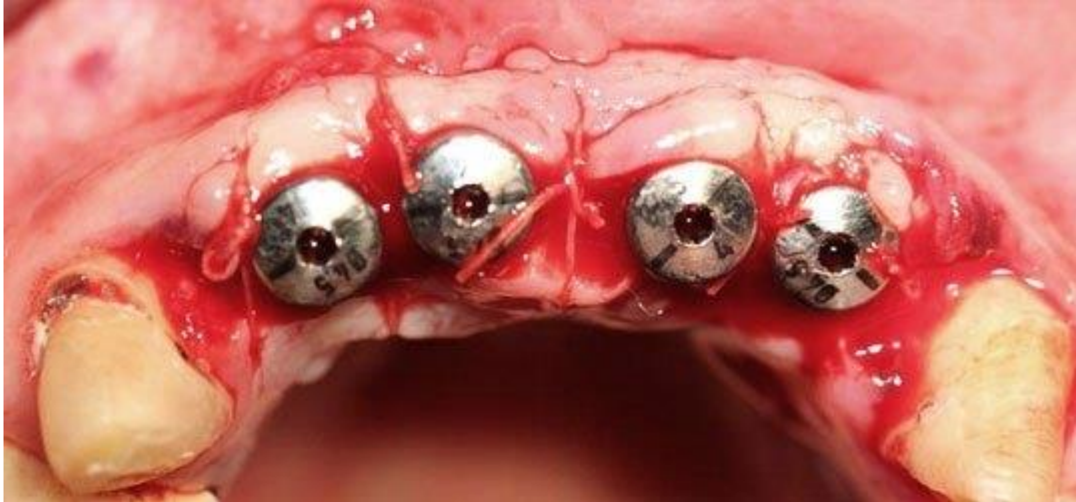
Palatal donor site sealed.



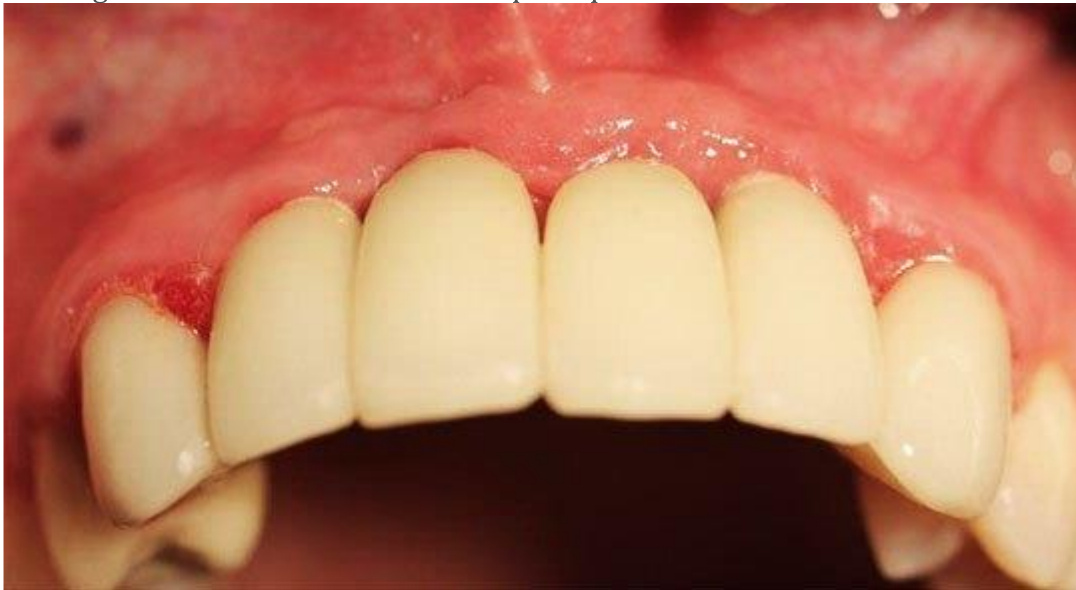
Palatal healing at two weeks.



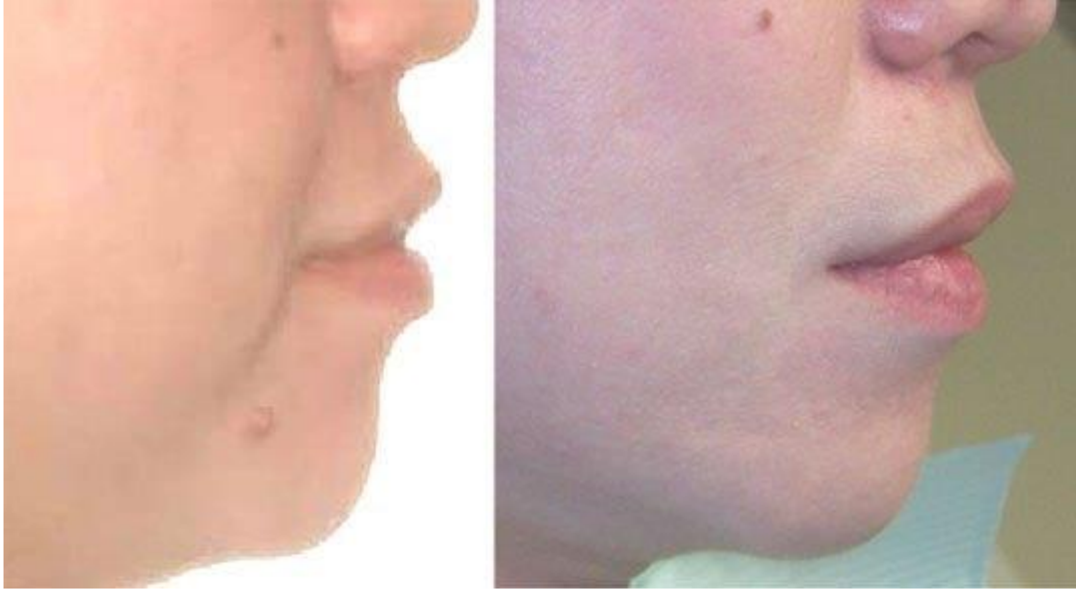
Onlay graft healing.



Healing abutments 3 months after implant placement.

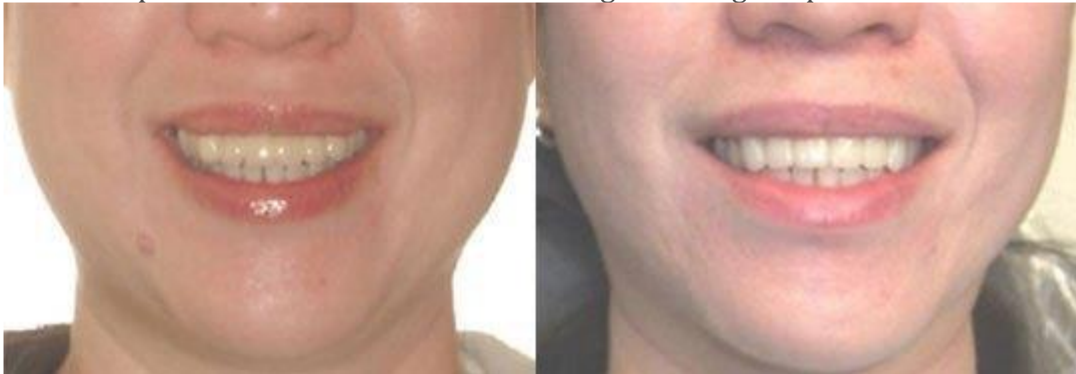


Day of cementation.



Pre Op Profile vs Post Op Profile

After cementation of the crowns note the beautiful contours of the upper lip and resolution of the deep nasiolabial folds as a result of regenerating the premaxilla.



With the case complete, a natural pleasant smile is achieved. Only a dentist can restore or improve facial esthetics. If bone and teeth are lost, muscle atrophy usually follows, producing and aged, asymmetrical, unattractive facial appearance that plastic surgery cannot restore.

Restorative Dentistry courtesy of Dr. Jeff McClure, Blue Oak Dental, Roseville, CA