4 Maxillary Posterior Implants To Support Fixed Teeth

Replacing upper back teeth with the most natural and best long-term strategy

Drs. Alan Rosenfeld and George Mandelaris
Diplomates, American Board of Periodontology
Initial exam reveals that tooth #14 is failing as a result of biomechanical and continuing root canal problems (red arrows). The patient has had this bridge for several years and is now going to lose all upper back teeth due to progressive disease. Sinus pneumatization is present, limiting bone height availability for implants at present. Bone grafting will be needed in order to accommodate implants.

Clinical presentation of missing teeth #12, 13, 14, & 15. All upper back left teeth were lost as a result of progressive disease. In this environment, two treatment options exist for the patient: (1) dental implants or (2) a removable partial denture.

There are no other alternatives.
In this case, **sinus bone grafting** was performed to allow sufficient vertical bone height in order to accommodate implant placement (length). These pictures represent the bone sinus bone graft reconstruction environment and the detailed planning Drs. Rosenfeld & Mandelaris engage in before the implant surgery commences in our office for patient safety and predictability in surgical therapy.
CT scan analysis for presurgical planning

Maxillary right side where natural teeth remain. No sinus graft is present. Note the difference between the left where the bone graft has been placed.

Sinus bone graft – left maxilla

Implant surgery diagnostics, planning for the replacement of 4 teeth in the maxillary left posterior.
Minimally invasive implant placement using CT guided technology.

Initial exam. Partial edentulism #12-15
Status 9 months post sinus bone graft

A tooth-mucosal supported computer generated CT surgical guide has been positioned and osteotomy sites have been prepared through the guide ensuring precise and accurate implant preparation.

This is a minimally invasive and highly accurate modality of implant surgery.
Minimally invasive implant placement using CT guided technology.

Guide pins are positioned in the implant preparation sites to check for proper angulation. Note that using this technology has not only increased precision and accuracy for the surgical outcome, it affords the patient the opportunity to have surgery without having the gum opened. There is no need for stitches and there will be no bruising or swelling afterwards.

Implants placed without opening gum tissue. Minimally invasive CT guided implant surgery.
Minimally invasive implant placement using CT guided technology.

Initial

Post surgery. Healing abutments are in place. The patient will be ready for teeth with their dentist in approximately 3-4 months.
Minimally invasive implant placement using CT guided technology.

Final Outcome

These two photos represent the final prosthetic outcome. 4 dental implants have been placed at tooth positions #12, 13, 14, and 15 (black arrows) and implant supported crowns have been cemented to the abutments.
Fixed Dental Implant Prosthesis Final Outcome Assessment.
The Contemporary Standard of Care For Missing Teeth

B E F O R E

A F T E R