



# Barry W. Heaton, D.D.S.

*Diplomate of the American Board of Periodontology  
Practice Limited to Periodontics & Dental Implants*

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Dear Colleagues,

This newsletter edition discusses maxillary sinus bone grafting using both the osteotome and lateral window techniques. When I started placing implants 22 years ago the contraindication list was long and the indication list short. The number one contraindication has always been a lack of bone. This is especially a problem in the posterior maxilla sinus bone grafts (sinus lifts) have been preformed for years to predictably increase the vertical height of bone.

History — The maxillary sinus bone graft was initially described using only autogenous bone. The difficulty here is having enough bone from the donor site to adequately fill the sinus. Various decalcified and calcified grafting materials were mixed with the autogenous to obtain adequate volume. When bone cores were studied histologically, the calcified graft autogenous mix worked better than pure autogenous. Subsequent studies showed the higher the percentage of calcified graft in the mix, the better the bone. Many studies now show that a pure Bio-Oss Graft (calcified) is superior to autogenous.

There are two ways for this procedure to be done. One is the lateral window procedure and the other is the Osteotome technique. The lateral window is the procedure generally done when there is very little remaining bone.

Case Reports — The first case is of a maxillary left fixed bridge failing due to a fracture of the distal abutment number 15. Although number 12 was also carious, it was salvageable (Fig. 1). Number 15 was extracted and the socket grafted. A lateral window was opened into the sinus and a pure Bio-Oss graft was placed. The results at 6 months are excellent (Fig. 2). Two Straumann implants were placed to put the patient in 1<sup>st</sup> molar occlusion. (Fig. 3)



Fig. 1



Fig. 2



Fig. 3

If the bone remaining is enough that a smaller graft is needed the procedure can be done with osteotomes.. The osteotome is basically a condenser that infractures the floor of the sinus and condenses the graft material under the membrane. (Fig. 4)



Fig. 4

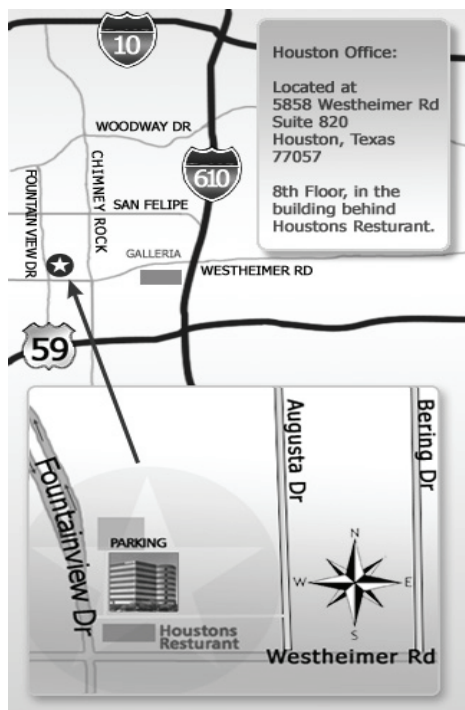
The second case is that of a Straumann implant placed in the #3 position. The entry is made for the implant and stops at the sinus floor. Graft material is then condensed against the floor. This is accomplished by lightly tapping the Osteotome. This infractures the floor and elevates the membrane with the graft material. The implant was placed immediately. Fig. 5 shows the pre-op view and Fig. 6 shows the implant at ten weeks.



Fig. 5 Pre-Op



Fig. 6 10 weeks Post-Op



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1. Regenerative procedures for treatment of advanced periodontal disease
2. Periodontal plastic surgical procedures including connective tissue grafts, gingival grafts, and ridge regeneration for pontic sites
3. Advanced implant placement
4. Site development for implants—(bone regeneration for deficient areas)
5. Treatment of bone loss around failing implants

Our philosophy is a team approach incorporating your treatment plan with ours.

After office hours I am available by contacting the answering service at 713.954.1334 .

Here is a map to our office which is conveniently located in Houston (Westheimer and Fountainview) with easy-access and free parking.