

# editorial commentary

## SPLIT BAR DESIGN: MAXILLARY IMPLANT-RETAINED REMOVABLE PROSTHESIS

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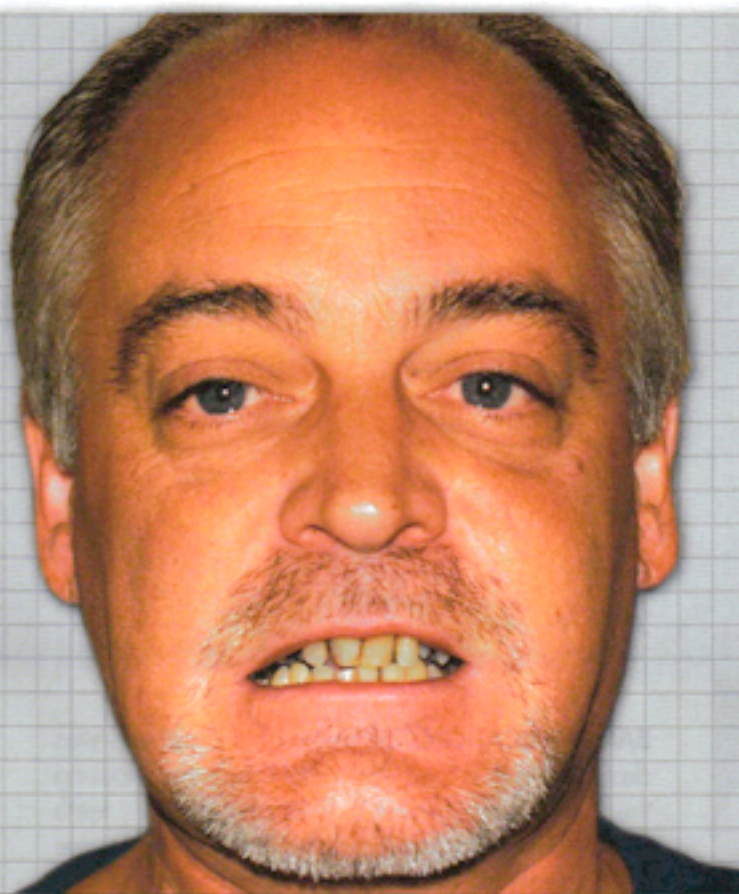
Treating failure in the anterior maxilla can be challenging, and the clinician must select the best available treatment option based on the presentation of the patient and his or her expectations. Providing rehabilitation of a diseased masticatory system necessitates that many

factors are taken into consideration to ensure a predictable and functional aesthetic outcome that meets the patient's desires. As demonstrated in the following, among these factors are the patient's lifestyle, hygiene, phonetics, and function/occlusion.



**FIGURE 1.**  
A custom  
impression tray  
allows for implant  
impression copings.

### TREATMENT PLANNING



**FIGURE 3.**  
Maxillary polyether  
impression recording  
implant positions.



**TREATMENT PLANNING.** A 47-year-old male smoker presented with a chief desire of improving his failing maxillary dentition, which consisted of severe periodontitis and rampant advanced caries. He declined perioperative treatment recommendations after several years of recommendation and requested the replacement of his remaining maxillary dentition.



**FIGURE 2.**  
Prosthetic teeth  
were set in wax  
to determine  
dimensions of  
split bars.

**FIGURE 4.**  
Implant impression  
copings and  
analogues were  
placed into the  
maxillary polyether  
impression.

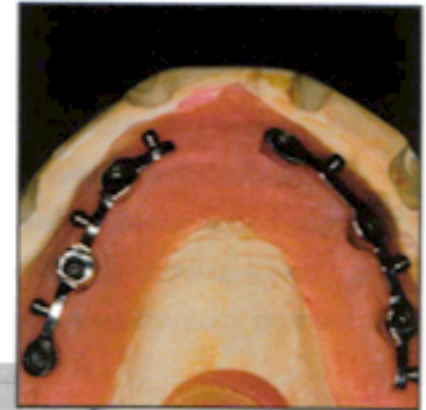




# BAR FABRICATION



**FIGURE 5.** View of the implants' position on the removable prosthesis.



**FIGURE 6.** The split bars were tried in for verification of passive fit, and the prosthesis was fabricated.



**FIGURE 7.** Radiograph of the implants with the split bar in place.

**FIGURE 8.** Facial view of the definitive removable prosthesis design that would attach to the 6 strategically placed implants in the maxilla.



**BAR FABRICATION.** The removable prosthesis was designed with a thin, cast-metal framework housing the six attachments. The prosthetic teeth (ie, BlueLine, Ivoclar Vivadent, Amherst, NY) were set to create an aesthetic natural appearance.





## PROSTHESIS DELIVERY



**FIGURE 9.** Occlusal view of the definitive removable prosthesis after its fabrication in the dental laboratory.



**FIGURE 10.** View of the tissue side of the prosthesis.

**FIGURE 11.** Occlusal view of the maxillary implant-retained split bar once seated in the patient's maxilla.



**FIGURE 12.** Occlusal view of the removable prosthesis in the maxilla.



**PROSTHESIS DELIVERY.** After delivery of the prosthesis, the patient was advised on the benefits of a strict maintenance program. Most important was his agreement to make a concerted effort to quit smoking.

### Acknowledgment

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