

## [Your Dental Solutions Newsletter](#)

### **Patient Perception: Fixed vs Removable**

#### **“Implant-Supported Complete Fixed Restorations versus Implant-Supported Complete Removable Dental Prosthesis for the Maxillary Arch”**

In the first edition of “Your Dental Solutions Newsletter” I will highlight a treatment decision that many clinicians face on a regular basis, treating the edentulous maxillary arch. As clinicians, we all desire to provide patients with outcomes that satisfy their treatment goals and improve their quality of life. When treating the challenging edentulous maxillary arch, we have the responsibility to educate patients on the potential outcomes with different prosthetic treatments. Our confidence in those recommendations and outlining the patient’s expectations following treatment will help guide the patient in their decision.

A patient’s desire to pursue dental implant therapy typically revolves around a psychosocial fear of having a Complete Removable Denture Prosthesis (CRDP) or an unsuccessful history with a CRDP. The patient’s perception following treatment can be influenced by a number of factors including Esthetics, Function, Comfort, Taste, Speech, Ability to clean, Self-Esteem, and the Presented perception of the restoration by the practitioner. There are limited unbiased clinical trials evaluating the difference between Implant-supported complete fixed dental prosthesis (**ICFDP**) (relating to Crown and bridge style fixed metal ceramic and/or metal-acrylic “hybrid” style) and implant-supported removable dental prosthesis (**ICRDP**)(bar overdenture style).<sup>1</sup>

The available research studies for the maxillary edentulous arch compare fixed metal ceramic and removable bar overdenture to compare several measures of treatment outcome. Regardless of design, it has been shown in a prospective study that dental implant therapy is of major benefits to patients in improving functioning and enhancing quality of life.<sup>2</sup> Contrary to conventional thinking that fixed metal ceramic provides higher patient satisfaction, removeable bar overdenture can provide successful patient satisfaction outcomes.<sup>2</sup> In some instances, a removable bar overdenture may even provide a more appropriate outcome.<sup>2,3,4</sup> In a systematic review by Selim

et al, cleansability can have a significant impact on the patient perception of the treatment outcome in which a removable bar overdenture was more favored than fixed metal ceramic.<sup>1</sup> In 2 studies the treatment outcome related to speech was actually more favorable for a removable bar overdenture.<sup>5,6</sup>

The removable bar overdenture for the practitioner has several advantages. First the size and shape of bar overdenture can be contoured to look identical to the metal acrylic hybrid or contoured to provide lip and face support as necessary giving freedom to adapt as necessary throughout the treatment. With a removable prosthetic the practitioner has the freedom to ideally transition the lingual flange into the palate making speech adaptation easier. With routine hygiene and maintenance the bar overdenture can be removed by the patient, which alleviates the added time (usually an hour to an hour and a half) necessary to have the doctor or possibly the hygienist remove and replace the hybrid. This can also reduce the cost of the hygiene appointment for the patient.

When a patient presents for evaluation, they present with most of the diagnostic parameters to help decide what prosthetic solution is appropriate specifically the lip position, length, mobility, and position of the edentulous alveolar ridge. For the edentulous maxilla, it may be necessary to complete a tooth set-up or a diagnostic wax-up prior to prosthetic and implant planning. Understanding the current condition of the maxillary anatomy will help to highlight the patient specific clinical parameters to aid in selecting the appropriate prosthesis for the patient.<sup>2</sup> Patient Specific classifications are available to assist the clinician in selecting the prosthesis that will fulfill the treatment outcomes. A reference, The Lip-Tooth-Ridge Classification (LTR) by Pollini et al, can be helpful in determining the appropriate prosthesis for the challenging edentulous maxillary arch.<sup>4</sup> This is achieved by taking into careful consideration during diagnosis and treatment planning the “anatomical characteristics, bone resorptive pattern, quality of bone, development of prosthetic emergence profile, oral hygiene limitations, influence of the teeth and hard tissue during speech, and the importance of the prosthesis for facial and dental esthetics”.<sup>4</sup>

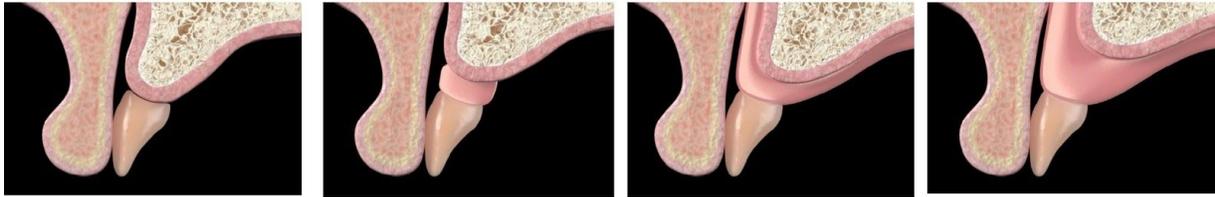


Illustration from Pollini et al: From Left to Right, Class I, Class II, Class III, Class Iv

In conclusion, the most important aspects of treating the edentulous maxilla are to understand “Why” the patient is seeking treatment and how patient specific diagnosis and treatment planning can identify the appropriate prosthetic option(s). Finally to remember that removable bar overdentures can be as successful if not more successful long term, can afford the practitioner and patient flexibility in the prosthetic design, as well as ease of hygiene and maintenance.

I hope that you enjoyed the first bi-monthly issue of “Your Dental Solutions Newsletter.”

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#### Citations

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4. Pollini A, Goldberg J, Mitrani R, Morton D. The Lip-Tooth-Ridge Classification: A guidepost for Edentulous Maxillary Arches. Diagnosis, Risk Assessment, and Implant Treatment Indications. Int J Periodontics Restorative Dent 2017; 37:835-841.
5. Heydecke G, McFarland D, Feine JS, Lund JP. Speech with Maxillary Implant Prostheses: Ratings of Articulation. J Dent Res. 2004; 83(3):236-40
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