

# Periodontics

*Perspectives of Current Ideas, Techniques and Clinical Concept  
in Periodontics and Restorative Dentistry*

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## **Tooth Versus Implant**

The emergence of implants as an alternative for missing teeth and replacement for teeth with questionable prognoses has significantly altered the treatment planning process. Prior to the advent of dental implants, teeth with less than fair prognoses were retained in order to maintain the dentition. If a terminal abutment for a bridge was lost then a removable prosthesis was the only alternative. For non-terminal teeth the fixed bridge option was preferred. However, once dentists began to incorporate single tooth implants into the treatment planning process, the negative aspects of the fixed bridge were examined more critically. How to determine to replace an existing natural tooth with an implant will be the subject of this newsletter.

The old standby, the three unit bridge, has been the standard of care for many years. Its value and superiority went unchallenged as the premier mode for replacing a missing tooth. Any negative aspects that arose with its use were downplayed, given its superiority versus a removable appliance or no replacement at all. That prevailing sentiment has been gradually replaced, in large part, due to the work of Dr. Carl Misch, who for at least the last ten years has been putting forward the idea that the single tooth implant is better treatment. The problems with a fixed bridge are real and occur despite the best clinical treatment: Abutment teeth are harder to clean making plaque control more difficult. This in turn can lead to caries and periodontal disease. The process of crown preparation makes the teeth more likely to have irreversible pulpitis and in need of endodontic treatment. There is a higher likelihood of tooth fracture after endodontic treatment. Other issues with fixed bridges include fractured porcelain and gingival recession that expose the metal collar. The life span of the typical three unit bridge has been calculated to be between 10 - 12 years. Once it needs to be replaced there is often the need for an extraction and replacement by a more extensive bridge. The single tooth implant has the longevity of at least that of a fixed bridge without the most serious disadvantages (porcelain fracture and gingival recession notwithstanding).

When does one make the determination to keep a natural tooth versus replace it with an implant? Using the paradigm of the past, many procedures have been devised

to maintain the natural tooth in order to avoid the necessity of replacement. These procedures continue to be valid; however, when to apply them becomes the issue. All parameters of the health of the tooth as well as the surrounding dentition as a whole need to be taken into consideration. There are so many factors to be considered that trying to categorize them or make a decision tree would be impractical within the confines of this report. Nonetheless, some important factors can be noted.

It is useful to consider anterior versus posterior. In the anterior there are obvious esthetic concerns that may not apply in the posterior and the anterior teeth are often less restored than posterior. Given these two conditions implants can be a better alternative versus saving a natural tooth. As an example, if an anterior tooth requires crown lengthening, the resultant loss of structure on the adjacent teeth creates an esthetic defect that is often unnoticeable in the posterior. If the patient is unsatisfied with the results once the adjacent periodontium is removed there is no regeneration possible that can regain the pre-surgical esthetics. Careful analysis of the extent of the crown lengthening procedure is required prior to initiation.

A single tooth implant can be made to have excellent esthetics if certain pre-treatment preparations are made. A common circumstance involves a fractured tooth or one with failed endo. Merely extracting the tooth without careful consideration as to the bone architecture that remains will compromise the placement of the implant and the resultant crown will be less esthetic. Adequate bone is necessary for the surgical ability to place the implant, place it in a prosthetically favorable position and to support the soft tissue properly.

Another consideration involves periodontal prognosis and when to extract a tooth in order to preserve adequate bone for implant placement. Since this decision is difficult to quantify it becomes one of clinical judgment, however the pendulum has swung further and further toward extracting periodontally compromised teeth in order to preserve bone for implant placement.

In the posterior all of the above apply, however esthetics may not play as important role. In addition, the posterior presents other considerations - namely occlusion. The ability of the natural tooth versus the implant to support the occlusion becomes more important. In the case of periodontally or endodontically compromised teeth what is the place for root resections? Removing a root in a mandibular molar and either retaining an existing crown or making one can only be justified if the remaining root is splinted to adjacent teeth or the occlusal surface for the remaining root can be drastically reduced. For a maxillary molar, removing either a mesio-buccal or disto-buccal root should be considered only if the remaining two roots have good or better periodontal and endodontic prognoses. Does the implant being placed have adequate diameter and length to support the occlusal lode? In situations where adequate implant size is in question either bone augmentation has to be done or conventional fixed prosthetics is preferred.

In conclusion, with the advent of implants and their proven quality and longevity they must be included in any discussion where there is a compromised tooth or an edentulous area.

### **Next issue: Bisphosphonates and Osteonecrosis**

**Do You Have suggestions for future topics?** Call my office or e-mail your ideas.

**Questions/Comments** Please call during Office Hours 301.871.7111 Mon. Tues. Thurs. Fri. 8 am—12 noon or E-mail to [mperio@msn.com](mailto:mperio@msn.com)