Implant dentistry in its modern mode started out as a surgically driven concept, and the early prosthodontic portions of the procedures were crude and lacking in aesthetic acceptability. Implant prosthodontic procedures remained relatively lacking in esthetics for several years. Eventually prosthodontically oriented practitioners around the world introduced changes, and implant prosthodontic treatment began to resemble real teeth. About the same time, dentists began to replace one or a few teeth with implants and implant prostheses, instead of only full arches of teeth. The esthetic result of some of these cases was excellent. However, from time to time, implants were restored with fixed prostheses that were easily identified as artificial teeth. When should implants be restored with fixed prostheses, and when should implants be restored with removable prostheses? This article discusses some of the clinical situations in which removable implant supported prostheses may be more acceptable than implant supported fixed prostheses when restoring.

Anterior Tooth Replacements

One of the first considerations when replacing a few anterior teeth with implants and implant prostheses is the level of the lip when the patient smiles. If the gingival tissues are at a relatively normal level in the edentulous area when one or two anterior teeth are replaced with implants and implant prostheses, the esthetic result can be excellent even when the person smiles high and exposes gingiva. If the smile line displays the normal junction of the gingival tissue and tooth structure, and the soft tissue is shrunken, fixed prostheses cannot be placed without an esthetic challenge. In cases where occasional display of the gingival tissue/tooth structure junction is probable, gingival colored ceramic can be matched to the color of the gingival tissue to fill in the areas of missing gingiva that would be displayed while lifting the lip during a very high smile. If significant soft and hard tissue is missing, soft and hard tissue grafting of the edentulous area should be considered before implants are placed. If the potential for successful grafting is good, a fixed prosthesis should be the treatment of choice. In cases of only slight display of gingiva during smiling, gingival colored ceramic placed on the fixed prosthesis can afford an acceptable result. If grafting success is not expected, the patient should be offered other alternatives, such as a removable prosthesis, implant or tooth supported. The cost, discomfort, and time involvement associated with implants and implant prostheses are appropriate only when acceptable esthetic and functional results are expected.

Replacing Long Spans of Missing Teeth

If the gingival height is at a normal level, typical implant supported fixed prostheses are indicated. These restorations provide some of the most acceptable prosthodontic therapy available today. However, some clinicians use fixed prostheses when the level of gingival tissues is not adequate. In these cases, the esthetic result is not acceptable.

When gingival levels are not adequate and there are long spans of missing teeth in a partially edentulous arch, I prefer to place a cast bar connecting the implants together, followed by an implant supported removable partial prosthesis. These restorations can simulate the lost tissues exactly, be easily repaired, be easily cleaned, and they are less expensive than fixed prostheses. In my opinion, implant supported removable partial dentures can be excellent tooth and soft tissue replacements in cases where fixed prostheses would be unsightly. These implant supported removable partial prostheses serve much better than conventional partial dentures because of their stability, esthetic desirability, and minimal bulk.

Edentulous Mouths

Many patients demand fixed prostheses over implants to replace the missing teeth in their edentulous mouths. Often the oral tissues are so resorbed that the fixed prostheses do not have adequate esthetic capability to replace the missing tissues and still be cleansable. Additionally, when fixed prostheses are used in edentulous mouths with severely resorbed tissues, the lips fall into the mouth and leave deep skin wrinkles on the face. If at all possible, these patients should be influenced toward implant supported removable prostheses.

I prefer to place several implants in such edentulous cases, usually at least four implants, and up to six implants. A cast bar is constructed and placed to connect the implants. A removable prosthesis is made, with minimal extensions and anatomy that simulates the original soft tissue contour. The denture is held in place with several small gold alloy discs made to snap over the metal bar connecting the implants (Attachments International (800) 999-3003). Implant prostheses made in the manner described above provide ease of cleaning, less cost than fixed prostheses, repairability, excellent esthetics, ideal lip and face form, and they still provide the stability and chewing efficiency of natural teeth.

Patients should be advised of the availability of implant supported removable prostheses. Some patients will complain because they want a fixed prosthesis, but after a reasonable explanation about the advantages of a removable prosthesis, most patients will accept the
preferred treatment plan.

Summary
Patients with missing teeth usually desire to have the teeth replaced with fixed prostheses. However, some clinical situations would be better served with removable implant supported prostheses, which can provide better esthetic results and still allow patients to chew in a manner similar to natural teeth. Patients should be educated about implant supported removable prostheses to aid them in making correct decisions about their oral treatment.

Attachments International, Inc., referenced earlier in this article, is a California corporation that was founded in 1976. On the company’s website, at: www.attachments.com, you can view informative newsletters as well as extensive information about implants.

Their 2002 edition of the Attachments & Implants Reference Manual, is now available. This expanded color-illustrated manual, features technical procedures, case planning and all the latest attachment and implant restorative components. The reference, highly acclaimed by Dr. Christensen, is also available at the Attachments International website.

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Practical Clinical Courses has recently compiled two video presentations that relate directly to this topic. These tapes can help you and your staff solve many implant prosthodontics challenges. The tapes are V2392 “Prosthodontics For Implants Simplified” or C900A “The Mini Implant For General Practitioners”.

You may contact PCC at: (800) 223-6569, fax (801) 226-8637 or visit their website at www.pccdental.com.