

Attachment Retained Distal Extension Prosthesis and Overdentures



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Special Lecture

The last three decades have witnessed significant changes in prosthodontics. In western Europe, as in many other civilized regions, we are facing an expansion of our populations with an age bias towards late middle age and the elderly group, as the post-war baby boom moves through society. For a generation, at least, the need to restore the partially dentate mouth remains an important priority. Nowadays, members of our society can not only expect to live longer than previous generations, but also to keep much of their dentition as well.

Not all will do so and many will become partially dentate. The advent of implant prosthodontics has produced a quantum leap in treatment possibilities. It has certainly captured the imagination of the public and of its prosthodontists.

However, far from sounding the death-knell of the removable prosthesis, implant prosthodontics has highlighted functional and aesthetic goals that may require the construction of new designs of removable prostheses, combining many of the advantages of traditional fixed and of removable prostheses.

It is possible that we may build a smaller number of removable prostheses than 10 years ago, but those we do construct will be demanding. In all these applications, precision attachments have a valuable and changing role to play.

For the sake of convenience, precision attachments can be divided into five main categories; intra-coronal attachments, extra-coronal attachments, study attachments, bar attachments and auxiliary attachments.

The barometer for success of virtually all removable prostheses is the interface between the abutment and the denture. This applies whether or not the abutment is a natural tooth, a restored tooth or an implant abutment. Five vital factors need to be considered at the denture-abutment interface.

1. The physical properties of the materials. An understanding of the physical properties of all the materials involved is essential in order to provide adequate color matching and strength.
2. The path of insertion. The contours of the abutment dictate, to a large extent, the path of insertion of the removable section of the restoration. If left to chance, unsightly spaces may arise when the denture has been inserted.

Planning the path of insertion is the responsibility of the prosthodontist.

3. Retention. Apart from restricting movement along the path of withdrawal, the retaining system requires resistance to rotational displacement forces as well. A precise path of withdrawal and provision of indirect retainers may help in this respect. Some attachments build in these capabilities.

Retaining forces greater than three or four Newtons are seldom necessary. The important factor is that