



**Removable**

# prosthetics:

*make  
them  
predictable,  
profitable,  
and rewarding*

## **Problem**

**RPDs are  
obsolete.**

**Time for a  
fresh look.**

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**R**emovable partial dentures, or RPDs, have been the most unpredictable and problematic restoration throughout the history of dentistry. Dr. Gordon Christensen recently reported, "It is my belief, after speaking to thousands of dentists, that RPDs and complete dentures are the areas of dentistry that receive the most complaints from patients."<sup>1</sup> Removable partial dentures should be considered a viable and legitimate treatment-

plan option for partially edentulous patients when other treatment-plan options have been ruled out because of physiological or financial concerns. RPDs often are the most economical treatment plan and can be made to properly fit and function for any patient.

Nevertheless, dentists often avoid RPDs even though they may be the best treatment option for the patient. There is a general unease and frustration in dentistry with the design and delivery of RPDs. Many dentists

## RPDs: PREDICTABLE AND PROFITABLE

feel that other treatment options will garner higher fees with less overall chair time required. Nevertheless, through the use of proper biomechanics in the design and construction of RPDs, dentists have the ability to deliver partials with high levels of predictability and acceptance from patients.

### Yes, they needed improvements

The Third National Health and Nutrition, or NHANES III, survey data set reported that most patients do not accept RPDs with a high level of acceptance or confidence.<sup>2</sup> The report went on to state that 65 percent of RPDs had at least one defect, with lack of stability as the most common.<sup>3</sup> Mandibular RPDs had significantly more problems related to retention, and maxillary dentures had more problems with presence of relined material. Only one-third of all RPDs delivered were considered satisfactory, according to the NHANES III study.

For RPDs to be both rewarding and profitable, they must meet high levels of patient acceptance. RPDs must meet certain criteria to provide for patient needs and concerns. Most important, RPDs must be functional. Proper function can only be achieved when the prosthesis is stable at all times and retention occurs only when indicated — during the dislodging motion.

With the use of Class II lever physics, balance-of-force principals of engineering, and intra-arch configuration, RPDs can be made to provide forces that are nontraumatic to abutment teeth. Forces applied during function along the long axis of the tooth should be designed to protect, strengthen, and ultimately preserve the abutment teeth.<sup>4</sup> Once proper function has been applied, it also is important to make the prosthesis comfortable and readily acceptable to the patient. The appliance should be as small and delicate as possible with no excessive use of clasps or involvement of extra abutment teeth. The prosthesis should never be extended into muccobuccal folds or mylohyoid ridges. On all free-end saddle designs, coverage of the retromolar pad and the tuberosity is always necessary.

### A method for balancing the factors

Function and comfort are the most important criteria in the delivery of a successful RPD. If these two major components of design are not properly incorporated, the patient will wear the partial only out of necessity, or not at all. Aesthetics, although an essential aspect in patient acceptance, should never be emphasized ahead of function and comfort. Cost of the appliance, tooth configuration, and the prognosis of the abutment teeth also must be factored into the overall design. RPDs can be made to meet these criteria and ultimately provide patients with predictable results.

The way to meet these criteria is by incorporating a system or philosophy of dentistry that addresses all these needs. Guesswork and over-planning should be eliminated. Applied principles of design should always be consistent to achieve the required results. Preparation of abutment teeth must be incorporated into the design to ensure proper vertical forces during function. These preparations can be done on existing dentition, new, properly contoured crowns, or other restorations. If an RPD function is compromised because of excessive lateral torque force, the abutment teeth will eventually become compromised or lost. Patient hygiene and periodontal treatments along with a properly functioning RPD will always provide results that are ultimately in the patient's best interest.

Traditionally, this area of prosthetics receives the most complaints from patients, dentists, and dental laboratories. Patients complain of lack of aesthetics and ill-fitting or uncomfortable appliances. Dentists have avoided using them because of their inherent problems — patient complaints, excessive chair time required, and general lack of understanding and confidence in their design. Dental laboratories also consider partials a problem for all these reasons, as well as the financial disasters stemming from constant repairs, remakes, and complaints.

Instead, look for a system that emphasizes Class II lever physics, balance-of-force principals of engineering, and intra-arch configuration to ensure proper biomechanics. Look for a system with many years of clinical success and patient acceptance. RPDs should be excellent practice-builders for both the dentist and the laboratory. RPDs that function well with superior aesthetics will garner higher fees and excellent patient acceptance. They are a win/win situation for the dental lab, dentists, and most of all, the patient. In our experience, RPDs can have a lower incidence of rework and offer treatment-plan options that are predictable and dependable. RPDs can be the answer to many of dentistry's most challenging case scenarios.

### Time for a new perspective

The perception of RPDs as inadequate restorations needs to be re-examined carefully by the dental community at large. We now are capable of providing patients with higher-quality removable prosthetics that rival other high-end restorations in function, comfort, and aesthetics. RPDs should be viewed with the same appreciation and respect as all other areas of restorative dentistry. RPDs can be predictable, profitable, and rewarding for your dental practice.

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*Editor's note: References are available from the authors by request.*