

MARKETING EXCELLENCE WITH QUALITY PROVISIONAL RESTORATIONS

by Dr. Peter Roach

One of the most powerful marketing tools in your practice is the provisional or interim restoration. It is an extension of your practice and thus can be an extraordinary internal-marketing factor for the practice. New materials and techniques now are available that allow the dentist to fabricate these provisionals to such a degree of acceptance that they do become a mere image of the finished restorations.

Eliminate the Word "Temporary"

The success of the provisional stage of treatment often starts with the manner in which the dentist explains the treatment sequence to the patient. Using the term "temporary" denotes to some patients that the finished restorations become the final "caps," with a "lifetime guarantee." The term "transitional restorations" may be even a more acceptable explanation to the patient, since it creates an awareness of exactly where they are in the total treatment sequence. For the purposes of this discussion, the term "provisional" will be used when discussing the phase of the treatment process from initial preparation through cementation of finished restorations.

The Importance of the Provisional

The provisional restoration becomes all-important during treatment. This is particularly true with the maxillary anterior teeth. There are four critical areas of concern to the patient:

Esthetics, Comfort, Speech and Function

These factors are addressed during the fabrication and placement of the provisionals. This will save frustration, time and money when presenting the finished restorations. A step-by-step approach should be followed when fabricating indirect provisionals. If these 13 steps are followed in a disciplined manner, you will be able to provide a properly constructed and highly predictable restoration.

The Fabrication Process

#1 Preplanning consists of working with

diagnostic casts properly mounted on a fully or semiadjustable instrument. Diagnostic wax-ups on a second mounted cast are usually necessary for any changes in the existing dentition. (Figure 1) Overwaxing or bulking may be necessary to prevent a possibility of excess reduction during the finishing and polishing process.

#2 A .02-thickness vinyl matrix is made over a duplicate cast of the diagnostic wax-up using a highly accurate vacuum former (Biostar, Great Lakes Orthodontics). (Figure 2)

#3 After tooth preparation, a single retraction cord (#00 Ultra Pack, Ultradent) is gently placed in the gingival sulcus. This cord is left in place while an alginate hydrocolloid impression is taken (Kromspan, Great Lakes Orthodontics).

#4 A centric bite registration is recorded for mounting the provisional cast and refining the occlusion.

#5 The impression is poured in snap stone (Whip Mix) which has a five-to-six-minute setting time.

#6 The gingival margins of the prepared teeth should be identified easily and exposed before proceeding to the next step. (Figure 3)

#7 A die spacer, Rubber Sep, (George Taub) is carefully painted on the model of each prepared tooth, being extremely careful not to cover the margins. (Figures 4 and 5) Rubber Sep is available in red and white colors, and can be dried more quickly by using the heat of a small blow dryer. This step also will prevent leaching of the red dye into the acrylic.

#8 A matrix form of the corrected cast is carefully trimmed to fit precisely over the provisional stone cast. (Figure 6)

#9 One of the most important steps is the pouring of a stone core onto the matrix. (Figure 7) This serves to properly position the matrix during the processing of the acrylic. The cast is painted with a separating medium before pouring the stone over the matrix (Al-Cote, Caulk). It is extremely important to have no opening between the

two stones in order to prevent an incomplete closure of the matrix when processing. (Figure 8) The amount of opening of vertical dimension in the provisional will be in direct proportion to the amount of flash or excess acrylic. Keeping this at a minimum reduces laboratory and chairside adjustment time.

#10 The matrix and core are removed and will stay as one unit. (Figure 9) A methyl methacrylate (Alike, Coe) is mixed to a doughy consistency and placed into the matrix. The matrix with the acrylic still in a doughy stage then is placed carefully onto the provisional cast and pressed into place. Excess acrylic is removed. Carefully examine for air bubbles. If any are found, a small hole can be punched at the site of the bubble with an explorer tip. Exerting pressure will remove the bubble. (Figure 10)

#11 The core, matrix and cast are held together with a large rubber band to insure complete closure. (Figure 11) This unit is placed into a pressure pot (Great Lakes Orthodontics) containing hot water for five to seven minutes under a minimum of 60 psi. After heat- and pressure-curing, the excess acrylic is trimmed away and the provisional then may be fitted on a mounted second cast poured from the original impression. The margins can be marked with a pencil and carefully contoured to prevent the necessity for direct relining.

#12 The provisional may be taken to the mouth at this point to finalize function and esthetics contours.

#13 After satisfying the functional and esthetic requirements, you can finish and bring the provisional to a high polish.

Additional Information

There are some additional points that should be discussed with respect to obtaining success in the fabrication of provisionals. There may be a necessity to strengthen long spans with fibers to reinforce the acrylic (Fiberflex, BioComp). Shade changes in the restoration can be obtained particularly in the incisal area by