

Clinical Case 3: Preparation and Restoration of Fractured Bicuspid

Clinical Case by Dr. Robert Margeas, Des Moines, Iowa



Initial situation: Fractured lingual cusp on tooth No. 13.



Amalgam shine-through.



Titanium pin placed.



Protemp™ Crown Temporization Material shown in protective liner.



Protemp™ Crown Temporization Material placed on preparation.



Protemp™ Crown Temporization Material adapted with composite instrument.



Occlusal view of Protemp™ Crown Temporization Material.



Facial view of temporarily cemented Protemp™ Crown Temporization Material.

Initial situation: Previously placed large amalgam restoration and a lingual cusp fracture on tooth No. 13. The patient did not like the grayness of the tooth due to amalgam shine-through.

Treatment plan: Amalgam restoration was removed, along with recurrent decay. A titanium pin was placed where the missing cusp was fractured using an electric slow-speed latch-type handpiece. Following core build-up, the tooth was prepared with a diamond bur and a flame-shaped bur to bevel the prep. The mesial-distal width of the preparation was measured to determine the proper size Protemp Crown. The film was removed and the crown rolled in the fingers to increase malleability. The crown was trimmed following the gingival contour to provide proper height. Protemp Crown was seated onto the abutment; margins and proximal contacts were adapted using the fingers and a composite instrument. The patient bit down to form occlusal contacts and the buccal margin was further adapted, after which the buccal surface was tack cured for 2-3 seconds. The patient opened, lingual margin was adapted; lingual and occlusal surfaces were tack cured for 2-3 seconds. The crown was removed for final curing outside of the mouth for 60 seconds and subsequently finished, trimmed as necessary, polished and cemented with temporary cement.

