Clinical Case 1: Restoration of Posterior Bicuspid Crown

Clinical Case by Dr. Don Erickson, Saint Paul, Minnesota

Initial situation: Recurrent decay on the distal surface of tooth No. 20. Due to the fractured buccal cusp and weak unsupported lingual cusp, tooth No. 20 required full crown restoration. The existing crown was removed and an interim temporary restoration was placed using Protemp™ Crown Temporization Material, to be followed by a permanent PFM crown.

Treatment plan: Old amalgam and undercuts were filled in with F2000 Compomer Restorative and the surface was finished with a tapered carbide bur. ProtempCrown was rolled between gloved fingers for approximately one minute to soften it and the gingival margin was trimmed to the approximate length of the preparation. Protemp Crown was placed onto the prepared tooth and shaped to establish a precise fit. The buccal and lingual margins were adapted and occlusal adjustments made, and the buccal, lingual and occlusal surfaces were each tack cured for 2-3 seconds. Protemp Crown was removed and all surfaces of the crown were light cured outside of the mouth for a total of 60 seconds. The cured crown was fitted onto the preparation, finished and polished using a composite polishing disc and cemented with temporary cement.