



# A modern conservative restoration of adjacent interproximal carious lesions in primary molars

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The prevailing technique to restore posterior interproximal caries employs modified G.V. Black Class II preparations, removing a portion of the occlusal surface of both the first and second primary molars to access the distal surface of the first primary molar and the mesial surface of the second (Fig 1).<sup>1,2</sup> With the advent of the gap-free composite or glass ionomer cement, a more conservative modification of this technique provides the same principles of decay removal and restoration without destruction of sound tooth.

After administering local anesthesia and placing a rubber dam, a triangular wooden wedge is inserted between the affected molars. The first primary molar is prepared in the conventional manner. Direct visualization of the mesial surface of the second primary molar is now possible, allowing conservative preparation of this carious surface. Caries removal is done with no provision for retention (Fig 2). The mesial surface of the second molar then is etched in the conventional manner and washed. Air drying — not desiccation — is followed by applying a multipurpose primer to the enamel and dentin and drying immediately. (The surface at this time will appear shiny.)

A multipurpose adhesive is applied to the enamel and dentin and light-cured. This unfilled resin bonding agent should never be air thinned, as the strength of the bonding agent at the interface is decreased from 28 MPa



Fig 1. Preoperative radiograph.

to a clinically significant 17 MPa following air thinning. After curing the unfilled resin bonding agent, the restorative composite material is inserted, condensed, and cured according to the manufacturer's instructions. Direct visualization of the restoration is now possible and removing any excess material and polishing may be accomplished using appropriate hand instruments, disks, or multifluted burs.

The Class II restoration for the first primary molar can be completed after applying the matrix band, wedging, and packing of either amalgam or posterior composite material.

This technique provides restoration of interproximal molar carious lesions in the primary dentition. The second molar tooth structure removed is only 1–2% of the total as opposed to 15–20% necessary for preparing the conventional Class II restoration. This technique provides a gap-free restoration with significantly less reduction. Any occlusal carious lesions can be treated very easily using either a preventive resin restoration or simply a modified Class I amalgam restoration.

This technique eliminates violation of the noncarious marginal ridge and contiguous occlusal tooth structure and prevents failure of amalgam restorations in the isthmus area.

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1. Pinkham J et al: *Pediatric Dentistry*, 2nd Ed. Philadelphia: WB Saunders Co, 1994, pp 307–8.
2. McDonald R: *Dentistry for the Child and Adolescent*, 4th Ed. St Louis: CV Mosby Co, 1983, pp 314–19.



Fig 2. Preparing mesial surface of second molar.