COMMENTARY

IMPRESSION MATRIX TECHNIQUE FOR CUSP REPLACEMENT USING DIRECT COMPOSITE RESIN André V. Ritter, DDS, MS*

This article by Denehy and Cobb describes the application of a preformed impression matrix to facilitate obtaining proper contour in posterior composite restorations, particularly when a cusp is involved. Similar techniques have been proposed for other applications, such as the Class IV lingual matrix and the occlusal matrix for posterior composites.

The proposed impression matrix technique is particularly useful when close examination of the tooth to be restored reveals a weak or undermined cusp, or a transverse fracture line requiring cusp reduction and restoration. The restoration of the cusp to its preoperative contour is challenging when the procedure is done intraorally. When an impression matrix can be obtained beforehand, the resolution of this situation is much less demanding. The technique is most advantageous when the contours of the cusp involved are to be fully duplicated.

Both laboratory and clinical research support the use of composites in small and moderately sized posterior restorations. However, currently, composites are not unanimously endorsed as a permanent cusp-replacing material. Denehy and Cobb are fully aware of this limitation and properly qualify the indications for the proposed technique, recommending it only in situations in which an indirect restoration is not feasible. This article provides an excellent solution to the difficult task of generating cuspal contour in large restorations.

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