

## A proximal contact adjustment and interproximal relief method

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In proximal contact adjustment, it is important that dentists restore microscopic clearance<sup>1</sup> or passive contact to relieve pressure between the proximal contact surfaces of indirect restorations and the adjacent teeth. This relief of pressure in the interproximal space will be referred to as *interproximal relief* in this article. Accurately restoring interproximal space is achieved by properly restoring the deflecting contours and occlusal anatomy of the teeth, and prevents food impaction. By restoring interproximal relief, complete seating of the indirect restoration is achieved and occlusal interferences are prevented. Interproximal relief enhances patient comfort after definitive cementation of the indirect restoration. Conventionally, the heavy proximal contacts of indirect restorations are marked using articulating film and adjusted with rotary instruments. Incremental adjustments of indirect restorations can be tedious and time consuming for both dentists and patients.

Using an ultra-thin (less than 0.05 mm) abrasive dental strip eliminates the need for articulating films and rotary instruments during adjustment of indirect restorations. The single-handed design of a diamond dental strip offers tactile control and allows easy access to limited anterior and posterior spaces intraorally. The clinician can adjust proximal contacts intraorally. As a result, chair time is reduced for the dentist, and patient comfort is enhanced. This article describes a simple technique for restoring the appropriate proximal contact, using ultra-thin diamond dental strips.

### PROCEDURE

1. Instruct the dental lab technician not to scrape the proximal surfaces of the adjacent teeth on the final cast (Heraeus Kulzer, Hanau, Germany), so as to retain the natural contour and space between the teeth. Do not exceed 0.10 mm in thickness if scraping is required.
2. Evaluate the fit, margins, occlusion, and proximal contacts of the completed restoration on the articulated cast (Artimax; B & D Dental Corp, Salt Lake City, Utah).
3. Place the restoration on the prepared tooth and evaluate the marginal fit with an explorer (K-2; Hu-Friedy, Chicago, Ill) (Fig. 1). If margins are open, note that

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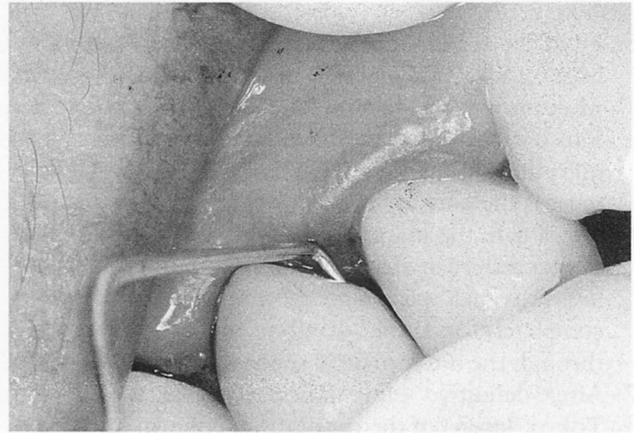


Fig. 1. Evaluate open crown margin.

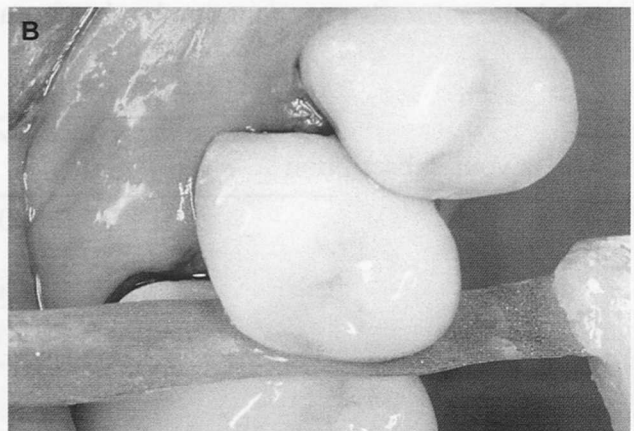
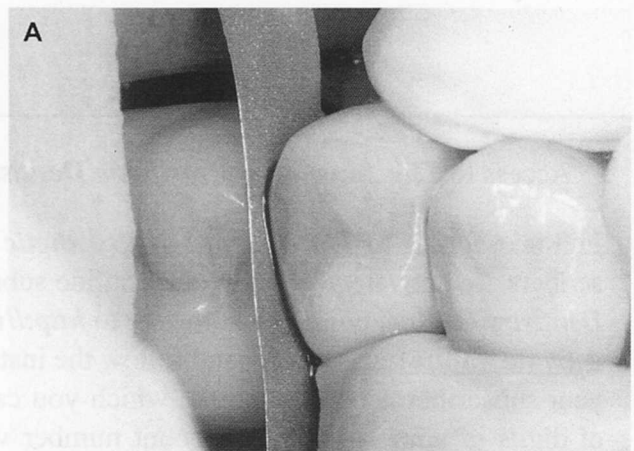


Fig. 2. **A**, Diamond dental strip moved buccolingually while crown is held by thumb and index finger. **B**, Interproximal relief of crown verified with diamond dental strip after definitive cementation.

the side of less opening of the crown margin is the side of heavier proximal contact.

4. Insert a diamond dental strip (ContacEZ; ContacEZ, Vancouver, Wash) into the interproximal space with the heavier proximal contact, ensuring that the abrasive side of the strip is facing the restoration (Fig. 2, A).
5. Hold the restoration between the thumb and index finger and press it gently onto the prepared tooth while moving the diamond dental strip buccolingually 5 to 6 times (Fig. 2, A). Feel the restoration settling onto the abutment tooth as the diamond dental strip relieves the pressure at the proximal contact area.
6. Reevaluate the margin of the restoration and repeat the procedure in Step 4 and Step 5 on the appropriate interproximal space until the restoration is seated completely and the diamond dental strip passes through the interproximal space with light resistance.
7. After definitive cementation (Fuji II; GC Corp, Tokyo, Japan) of the restoration, confirm interproximal relief by passing the diamond dental strip

through the interproximal space with light resistance (Fig. 2, B). Check the interproximal space with thin waxed dental floss (Johnson & Johnson, New Brunswick, NJ), passing through with firm resistance.

8. Evaluate the occlusion and adjust if necessary.

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