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Key Takeaway Points

- When treating early onset interproximal decay, preparation design can be modified to a tunnel preparation using bioconstructive restorative material.
- Tunnel preparations bonded with Beautibond and filled with Beautiful Flow Plus are an ideal conservative treatment for incipient Class II decay that can be completed in a stress-free manner.
- Using the tunneling technique shown keeps the main integral part of the tooth—the marginal ridge—intact, thereby helping provide a conservative, esthetic, long-lasting restoration.

Incipient Decay Treatment: Tunneling to Success

Bioconstructive restorative materials achieve high esthetics while repelling plaque

From new techniques, to newer materials to adapt to those techniques, minimally invasive dentistry is becoming increasingly prevalent in everyday dental practice. In early onset interproximal decay, preparation design can be modified from traditional “Class II box-type preparations” to a tunnel preparation as long as the clinician uses a bioconstructive restorative material to fill the preparation. Beautiful Flow Plus® and the entire Beautiful composite line from Shofu Dental Corporation (www.shofu.com) represent composite materials that have unique chemistry. The composite features surface pre-reactive glass filler particles that release different beneficial ions onto the tooth structure and possibly adjacent teeth as well. These ions work to desensitize, remineralize, and disinfect the underlying tooth structure, making a truly unique bioconstructive material. The composite is also extremely esthetic and has plaque-repelling abilities. The case presented illustrates the use of Beautiful Flow Plus along with BeautiBond® adhesive (Shofu) in a minimally invasive tunnel preparation.



FIG 1.

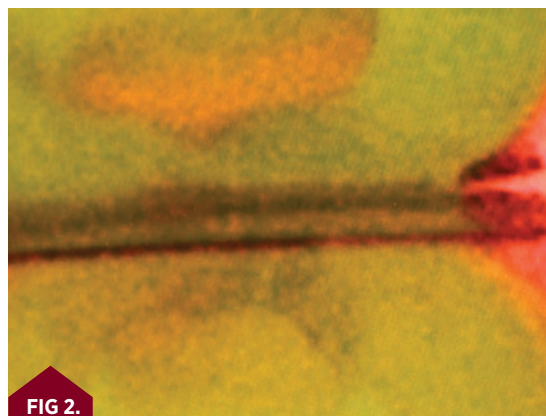


FIG 2.

1. Initial incipient Class II decay. The first tunnel has been completed. Note the decalcification left on the proximal wall but the decay removed and the wall perforated through up to the matrix band (Triodent WedgeGuard, Ultradent, www.ultradent.com).

2. A caries detection camera (Spectra, Air Techniques Inc., www.airtechniques.com) was used to detect decay that was still present, which is noted by the red hue on green image.



3. The tunnel preparations have now been completed. Note the affected dentin present but no decay.

4. BeautiBond unit-dose delivery was used to bond the preparations. A 10-second application would be followed by air-drying and then 10 to 15 seconds light-curing.

5. Following the application and light-curing of the BeautiBond adhesive, note the sheen present despite the low film thickness.

PN 1782: BeautiBond (unit dose) kit, incl. 50 x 0.1ml ampules, 50 micro brushes



6. Beautifil Flow Plus shade A-2 (Shofu) was placed in two increments and light-cured.

7. Because the Beautifil Flow Plus material is somewhat self-polishing, only a light touch with OneGloss® polishers (Shofu) was needed.

8. The final tunnel preparations and restorations completed. This procedure proved to be a “win-win” for doctor and patient—the patient wins because of the conservative and highly esthetic nature of the procedure, and the dentist wins because it is a stress-free Class II restoration.

PN 2000S: Beautifil Flow Plus Standard Kit, incl. 2 x 2.2g syringes of F00 & F03 in A2, A3, 2 Beautifil II tips, 2 unit doses of BeautiBond, 6 assorted OneGloss PS, 2 Super-Snap Singles

