

# Overcome the Hurdles of Restoring Adjacent Class II Composites

Using VursaWedge to provide better contour, proper contact, and improved gingival seal. [by Matthew Burton, DDS]



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WITH CURRENT SYSTEMS and methods in quadrant dentistry, it is often necessary to restore 1 Class II at a time. This is inefficient, time-consuming, and a hassle for both the dentist and the patient. However, completing 2 adjacent Class IIs simultaneously often ends up with an open contact. In addition, when restoring 2 adjacent teeth, the margins are situated in different directions, thereby making it difficult to simultaneously seal both gingival margins. This problem is easily solved by using a VursaWedge from Young Specialties. The unique split-wedge design allows the wings to simultaneously seal both margins of adjacent teeth and allows the wedge body to sit low in the embrasure space, ensuring proper matrix contour, emergence, and contact area.

## Patient Presentation and Treatment Plan

A 23-year-old male patient presented with a failing distal occlusal composite with recurrent caries on tooth #13 and a failing occlusal lingual composite with mesial caries along a fracture line (Figure 1). The treatment plan involved removing the old fillings and carious tissue, then restoring with new composite restorations. Adjacent restorations such as these present with 2 primary chal-

lenges: sealing both gingival margins simultaneously and achieving proper restoration contour and proximal contact. These 2 areas become increasingly complex to restore when there are adjacent lesions, and they also play a critical role in restoration success and longevity.

## Step-by-step Workflow

**STEP 01** The failing restorations and caries were removed, leaving 2 adjacent Class II restorations to be placed (Figure 2). The teeth were prepared using a 330 bur, removing the existing amalgams first to gain access to areas of failure and carious tissue, which was removed using a right-angle #2 round slow-speed bur. The axial walls of both preparations were cleaned and beveled using a fine diamond. This step is important to ensure the restorations can achieve proper emergence in the proximal area. It is also important to remove any weak or flaky enamel that may fail early and affect marginal integrity.

**STEP 02** Vitrebond from 3M was placed to cover exposed dentin. I perform this step regularly, as it helps improve postoperative sensitivity in medium-sized and larger restorations. Selective etch was placed to cover all enamel margins for 20 seconds, then rinsed thoroughly (Figure 3).

**STEP 03** Sectional matrices were placed. In adjacent cases, I find it helpful to use 2 different styles of

sectional matrices, 1 on each tooth. For teeth with more contour—in this case tooth #14—a more contoured Garrison 3D sectional matrix was used. For tooth #13, which was less contoured, a slightly less contoured Palodent matrix was used (Figure 4).

**STEP 04** With the matrices in position, a VursaWedge is placed. In most cases, VursaWedge is placed from the buccal aspect. However, VursaWedge can be placed from either the buccal or palatal aspect if necessary (Figure 5).

**STEP 05** A Triodent Ring from Ultradent is now placed. This step is where the VursaWedge becomes even more distinct as it is ring compatible. The handle side of VursaWedge is designed to fit under the cutouts of the ring, and the splitting side can be split by the other ring pad. This feature allows many important things to happen:

- ▶ The pressure from the ring is transferred to the VursaWedge, thereby creating indirect pressure and effectively sealing the gingival margin.
- ▶ Because the pressure of the ring is displaced to the VursaWedge wings, the matrices do not kink or distort. This is a key area to pay attention to. Kinking or distortion of the matrices is common, resulting in irregular shapes and contours in the Class II restoration, so smooth matrices are imperative to successful outcomes.
- ▶ By placing the ring pad on the VursaWedge wings, the procedure is made more comfortable for the patient who does not feel the pinch of the ring on the palatal tissue.
- ▶ VursaWedge inhibits ring slippage. Placing the ring force on the VursaWedge rings engages the split wings in the undercut area of the tooth, thereby inhibiting slippage (Figure 6). Notice how both gingival margins are perfectly sealed (Figures 7 and 8).

**STEP 06** When performing adjacent Class II restorations, 1 tooth is restored at a time, but the bonding agent is applied to both teeth simultaneously. In this case, Scotchbond from 3M was applied, air-dried, and cured for 15 seconds. I chose to restore tooth #14 in this case, applying a 1- to 1.5-mm single layer of SureFil SDR from Dentsply Sirona to the gingival portion of the proximal box. The material was cured for 20 seconds, then 3 incremental layers of Filtek Supreme by 3M were



## VursaWedge

A unique wedge technology that assists in direct restorative composites by way of a split-wedge design that enables proper matrix contour, emergence, and contact area by way of its simultaneous wing sealing.

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placed to complete the restoration (Figure 9).

**STEP 07** Once the mesial occlusal restoration and box were completed on tooth #14, a Dycal instrument—or any burnisher—could be used to gently burnish the contact area of the remaining Class II matrix. This helps ensure a proper contact area is achieved (Figure 10).

**STEP 08** SureFil SDR from Dentsply Sirona is placed in the gingival portion of the proximal box on tooth #13 and cured. (Figure 11).

**STEP 09** A layer of Filtek Supreme is

placed in the box portion of tooth #13 and cured for 20 seconds, followed by the final occlusal layer. I prefer to place and cure the box portion first, as this allows me to ensure the material is adapted well to the matrix and axial walls (Figures 12 and 13).

**STEP 10** To finish the restorations, occlusal adjustment and polishing are completed using a Meisinger Polishing Kit (Figures 14 and 15).

#### Discussion

My 13 years of practice have been immersed in the growth and evolution of composite matrices, rings,

materials, and techniques. Throughout that time, I quickly realized 1 key component that failed to evolve: the wedge. I never would have imagined a simple modification in wedge design could have such a positive impact on how dentists perform Class II restorations on a daily basis. VursaWedge, in combination with any ring/sectional system of choice, allows dentists to achieve perfection in all Class II cases. Class II directs are the bulk of the daily workload for most practices and are often the first procedure performed on a new patient. Having the right tools that provide the ability to perform Class IIs with precision, predictability,

and confidence is of utmost importance in patient confidence and practice growth. ●

#### ABOUT THE AUTHOR

Matthew Burton, DDS, founder of Burton Dental Innovations, LLC, developed the BurtonBands and VursaWedge matrix system to help dentists achieve more predictable and favorable Class II composite results with improved efficiency and optimal outcomes. Dr. Burton specializes in Class II composite restorations at his private practice in Frankfurt, Illinois, and has leveraged his insights to develop and market new solutions for dentists who face the same challenges in their own practice.



#### AT A GLANCE

Figure 1. Preoperative presentation.

Figure 2. Failing amalgams and carious tissue removed.

Figure 3. Selective etch applied.

Figure 4. Matrices placed.

Figure 5. VursaWedge placed.

Figure 6. Ring pad placed on VursaWedge wings.





AT A GLANCE

Figures 7-8. Gingival margins perfectly contoured and sealed.

Figure 9. Composite placed on tooth #14.

Figure 10. Matrix is burnished to ensure optimal contact.

Figure 11. Composite placed on tooth #13.

Figures 12-13. Final occlusal layer of Filtek Supreme is placed on tooth #13 and tooth #14.

Figures 14-15. Completed restorations after occlusal adjustment and polishing.

