

Demonstration on a dental model

Introduction

Many practitioners find it difficult to obtain good proximal contacts with composite resin restorations. In reality, we just need to realise that composites are not truly condensable materials and therefore use much finer anatomical matrices and a separation system such as the Palodent® system. Under these conditions, we easily obtain excellent proximal contacts. This film aims at demonstrating the use of the Palodent Sectional matrix System on a model .

Description of the material

The Palodent® system comprises five elements only, 3 sizes of matrices and 2 types of BiTine® separation rings that act as a spring.

- The "Mini" matrix is the smallest one, for use in the pre-molar area,
- The "Standard" matrix is suitable for most situations in the molar area,
- The "Plus" matrix is suitable for situations with very long coronal forms. This is for example typically the case where there are periodontal problems.

These three types of matrices are already convex or pre-contoured and thus directly shape the proximal surfaces anatomically. They are also very thin to ensure that they take up as little space as possible at the contact point.

The BiTine® round ring, is used mesially, whilst the BiTine® oval ring will be used more often in distal situations, providing better visibility on the occlusal surface.

Demonstration:

1 Placement of matrices

Let's do a demonstration on a model to see how this matrix system works.

The matrix band is inserted laterally, labially or buccally. As it is convex, it is easier to insert it this way rather than from the occlusal side. A simple pair of forceps is sufficient for placing it. The second matrix is inserted by the same method. Note how well these pre-curved matrices fit onto the vestibular and lingual walls.

2 Placement of wooden wedges

You then insert wooden wedges at the cervical margin to adjust the seal of the matrix band to the cervical area and also to create some separation and thus good proximal contact.

3 Placement of the separation rings

The first ring is positioned mesially; this round ring provides good visibility of the operating field, but also a certain separation.

The oval BiTine® ring is then positioned in such a way that you can see the cavities. The big size of this ring makes this possible. The oval BiTine® ring ensures easy separation too and helps to create an excellent contact point.

At greater magnification, you can see the perfect fit of the matrix bands to the vestibular and lingual walls as well as the marginal cervical seal

The entire matrix system is perfectly fixed to the complete tooth structure and this gives sufficient stability for the composite material to be placed.

4 Removal of the system

Removal is the exact reverse of insertion: We start by removing the distal oval ring, then the mesial round ring, followed by the wooden wedges: you can see here how the tension and separation relax. The matrix bands are then removed laterally.

Conclusion:

We presented the Palodent® Sectional Matrix System – a matrix system that is specifically designed for posterior fillings. It provides excellent proximal contacts for composites placed in the posterior area using direct techniques. However, this system is also suitable for all situations. The advantage of this system includes natural contours for better control of contact areas, ease of placement, better visualisation of the operative field and more comfort to the practitioner and the patient.

One of the most trusted matrix system over the world, the Palodent® Sectional Matrix System has been rated as a 5 Star from Reality over 15 years.