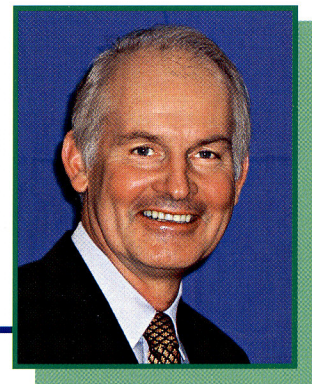


AESTHETIC Update



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Diastema closure

There are two specific problems that need to be addressed when closing a diastema between two central incisors. Firstly, avoid a black triangle at the gingival margin and secondly, ensure that the midline is correctly positioned.

The following clinical technique is a fast and simple way to predictably close diastemas and avoid these pitfalls.

A patient presented with a relatively large diastema that he wanted to close (Fig 1). It is advisable in such cases to make patients aware that the normal incisor length to width ratio will be altered, creating a possible effect of two 'fat' central incisors. There was also a fair degree of white hypoplastic spots on the incisors that could create problems masking the addition of composite resin into the proximal space.

An invisible proximal restoration requires choosing a cervical and incisal third shade in a microhybrid resin that will prevent proximal shine through. This is followed by covering the microhybrid resin base with a surface shade of microfill resin that will give the restoration a long lasting high luster and translucency.

The mesial margins of the centrals were polished with pumice and water, followed by running a high speed 12 fluted tungsten carbide bur along the cervical margins to remove any residual pellicle that has the potential to cause future marginal staining. The surfaces were etched for five seconds with a 37 per cent phosphoric acid gel, washed and dried with oil free air. Next, a single component dentine bond was painted

over the mesial, labial and lingual surfaces of the centrals followed by a small amount of resin bond. The bonds were photo cured for five seconds. The phosphoric acid removed the biofilm and secures an excellent etch to the enamel surface. The dentine bond facilitates a composite resin bond to any dentine at the cervical margin and the resin bond further assists bonding on the composite to the very thin bond thicknesses that occurs with single component dentine bonding agents.

Small increments of cervical shades (approximately 1mm in diameter) were placed in a slightly labial position at the cervical margins each closing about one third of the proximal space. In this case the shade chosen was A3. Placing the composite resin slightly labially masks the cervical gingivae but does not encroach upon it. This procedure further enables positioning the cervical margins an equal distance from the midline and spot photo cured for five seconds. The incisal third shade was chosen as A1. Small increments of composite resin (approximately 1mm in diameter) were placed at the incisal third of the two central incisors, equidistant from the midline and spot photo cured for five seconds (Fig 2 and 3). Note in Figure 3 how the cervical increments are positioned labially and the incisal third increments are positioned within the labial and lingual boundaries of the central incisors.

The spaces between the cervical and incisal increments were filled with microhybrid composite resin, shade A2. Observe the small dots of white tint placed over these increments to mimic the white hypoplastic spots on the surface of the central incisors. These increments were spot photo cured for five seconds (Fig 4).

A paper point was chosen that would fit snugly between the two cervical increments, in this case #7. The point was then wrapped around the labial and lingual surfaces of one central incisor. This was followed by the placement of a Mylar strip into the interproximal space between the paper point and the cervical resin increment, followed by painting the surface with resin bond. Increments of microfill resin (shade A1) were inserted into the proximal space on both the labial and lingual surfaces. Special attention was paid to packing the cervical area on the lingual surface so as to fill the space behind the labially placed cervical increments. A flowable composite may be useful in this clinical situation. Following this, the paper point was wrapped around the cervical margin to form a continuous composite resin margin at the gingivae. The Mylar strip was aligned so that the vertical margin was aligned with the long axis of the tooth. The composite resin was then spot cured labially and lingually for five seconds. The same procedure was carried out on the adjacent incisor, filling the proximal space between the two teeth (Fig 5).

The restorations were contoured using high speed 12 fluted tungsten carbide burs and slow speed abrasive discs and finished with rubber wheels, abrasive strips and polishing discs (Fig 6).

Closing a diastema with a small labial skirt at the cervical margins masks the proximal space yet facilitates flossing and minimizes the chance



Fig 1. Patient presented with a substantial diastema between his central incisors.



Fig 2. Incremental build-ups of composite resin at the cervical and incisal third of the crowns facilitate closure of the proximal space at the cervical and enable correct positioning of the midline.



Fig 3. Observe the labial placement of the cervical increments while the incisal increments remain within the anatomical parameters of the central incisors.



Fig 4. The space between the cervical and incisal increments is filled with a microhybrid. Note the small amount of white tint to mimic the hypoplasia on the natural teeth.

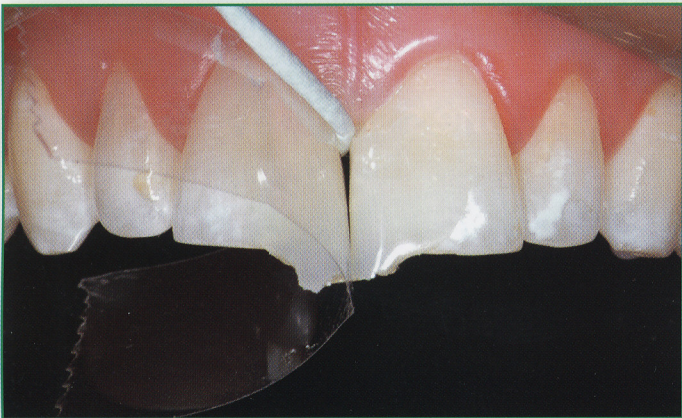


Fig 5. The paper point was wrapped around the cervical margin to form a continuous composite resin margin at the gingivae. The Mylar strip was also aligned so that the vertical margin was aligned with the long axis of the tooth. The composite resin was then spot cured labially and lingually for five seconds.



Fig 6. Completed restorations.

of a gingival plaque trap. However, it is important that practitioners take special care to make sure there is a smooth unbroken margin of composite resin at the gingivae. Placing small increments of composite at the incisal third enables practitioners to place

- these restorations equidistant from the anatomical midline.
- These procedures are always a little unpredictable due to the expectations a patient has of the eventual aesthetic outcome. Avoiding any tooth preparation is a major benefit

- in such cases, enabling a practitioner to remove the composite restorations without any adverse effects to the surfaces of the treated teeth.
- Minimal tooth preparation translates into minimal hassle if a patient's desired outcomes are not achieved.

