

restorations

# Closing spaces

Marcelo Balsamo shows the benefits of composites.

When someone smiles, there are positive and negative aspects of the presentation of the teeth. Positive aspects are natural brightness, natural translucency, symmetry and a harmonious relationship of teeth and lips.

Negative aspects are discoloured teeth, broken symmetry and spaces. The latter are quite common, and the dentist plays an important role in the removal of these disturbances which impair a natural and aesthetic smile.

The photographs shown here describe a clinical problem which

**Positive aspects are natural brightness, natural translucency and symmetry.**

can be solved quickly and easily with the help of direct composites and a good finishing technique.

The first two photographs show a young woman with a diastema (fig 1) and small spaces in the anterior occlusion (fig 2, circled).

After shade selection (figs 3 and 4) the enamel surfaces were prepared for the application of a self-etching adhesive and the composite by roughening with a fine diamond (figs 5, 6 and 7). To confirm the shade selection, a small volume of composite can be light-cured on



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● Fig 1: Initial situation.



● Fig 2: Diastema 11-21 and spaces in the anterior occlusion (circled).



● Fig 3: Shade selection.



● Fig 4: Grandio A1 is selected as the main shade for the anteriors.



● Fig 5: Roughening of the surface with a fine diamond.



● Fig 6: Roughening of enamel surfaces to increase adhesion. Teeth 11, 12 and 13 are to receive composite palatally and incisally to enlarge the cervical-incisal dimension and to close the spaces in the occlusion.

the tooth (fig 9).

A special matrix system was used to separate the incisors when closing the diastema (figs 10, 11 and 12). The matrix supports contouring and the preservation of the gingival papilla. After the placing of the matrix the self-etching adhesive Futurabond NR (VOCO) was applied (figs 13, 14).

The nanohybrid composite Grandio (VOCO) was chosen for the restoration. This system has good translucency and ideal resistance against chewing forces. In the first step, material of a higher colour



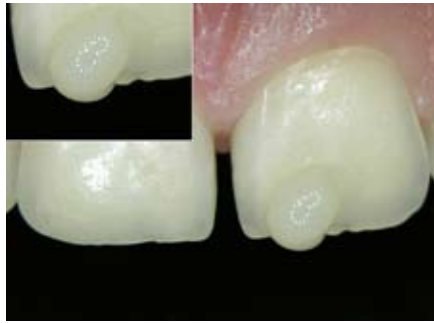
● Fig 7: Teeth 32, 43 and 44 are roughened on the surface to increase adhesion, and are to receive composite on the vestibular side.

saturation (A2) was applied in the cervical area (fig 15), A1 was

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● Fig 8: Last step of shade selection.



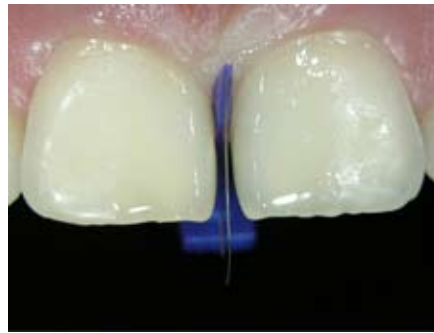
● Fig 9: Confirming the selected shade through light-curing some composite on a tooth.



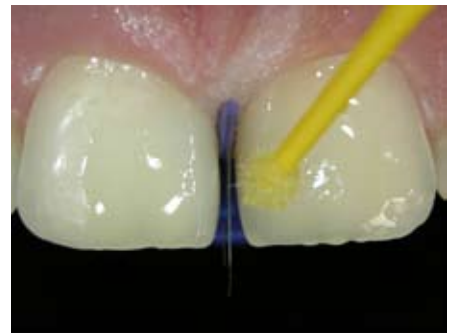
● Fig 10: Selection of a special matrix system to close the diastema.



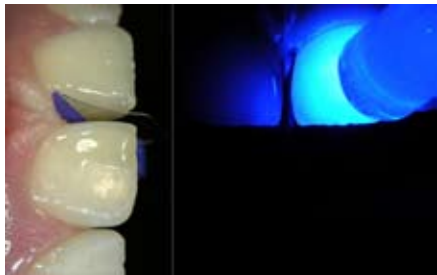
● Fig 11: Fitting the matrix between 11 and 21.



● Fig 12: Final adaptation of the matrix.



● Fig 13: Application of the self-etching bond Futurabond NR (VOCO).



● Fig 14: After application of the bond: light-curing.



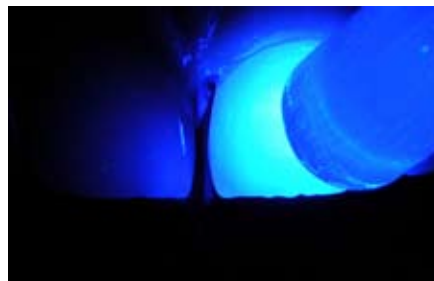
● Fig 15: Application of the first layer of the more saturated composite in shade A2.



● Fig 16: Beginning of the restoration with the basic shade A1.



● Fig 17: Applying the final coat of the incisal shade I.



● Fig 18: Light-curing the final layer.



● Fig 19: Removal of cervical excess with a scalpel.



● Fig 20: Approximal polishing.

chosen as the main shade. Then the main build-up was carried out with A1 (fig 16). Finally, a translucent area was created with the incisal shade (figure 17), the shade transitions were carefully homogenised with a small brush (fig

18). After removal of cervical excess with a scalpel and finishing, the polishing was carried out with the Easygloss brush and polishing strips (figs 19, 20, 21). Fig 22 shows the closed diastema.

The same procedure was then →

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● Fig 21: Polishing with the EasyGloss brush (VOCO).



● Fig 22: After closing the diastema.



● Fig 23: Beginning the enlargement of the cervical-incisal dimension of teeth 11, 12, 14, 33, 43 and 44.



● Fig 24: Completed restoration: diastema closed, spaces in the occlusion (black circles) closed, space 22–32 (white circle) not closed for occlusion reasons.



● Fig 25: Final view.

shows how it was possible to establish the harmony of the smile with these minimal corrections. This confirms our conviction that good aesthetics can be reached with minimally-invasive corrections if the material is known and its use mastered. ■

Used to enlarge the cervical-incisal dimension of teeth 11, 12, 13, 33, 43 and 44 (fig 23). Figures 24 and 25 show the closed diastema and

the closed spaces in the anterior occlusion (black circles). The white circle shows a space which could not be fully closed since this would have changed the occlusion. Figure 25

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*Dr Christine Sedgley – Assistant Professor, Department of Cariology, Restorative Sciences and Endodontics, School of Dentistry, University of Michigan  
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