

About the Case

A 35-year-old female patient expressed a desire to optimise existing composite restorations on her maxillary central incisors, which had been placed 15 years previously to close her diastema. Then, a silicone key had been used for guidance. No tooth preparation was carried out, as the composite was bonded to the tooth structure.

Challenge

The surface of the restorations showed slight discolourations which were removable by polishing. The shape of the teeth was acceptable, but not perfect. A decision was made to retreat her in a non-prep, single-shade approach. The main goal was to create a more natural shape. The front wing technique invented by the Styleltaliano team was used. This approach involved freehand modeling of the vestibular part of the tooth, which was easily accessible. Afterward, material was added to the palatal side, and anatomical matrices were employed for shape optimisation.

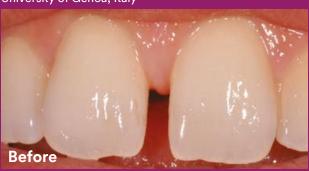
Outcome

The technique worked beautifully to close the diastema. Despite freehand modeling, it was much easier and more precise than using a palatal silicone index. In addition to the natural shapes that were achieved, 3M™ Filtek™ Universal Restorative blended well with the surrounding dentition, making the restorative work indistinguishable.

Clinical Case Dr. Walter Devoto

Midline diastema closure using the front wing technique

Clinical dentistry and photography by Dr. Walter Devoto, University of Genoa, Italy





See a step-by-step Case Overview on back.

About Dr. Walter Devoto

Dr. Walter Devoto graduated with honours in dentistry and dental prosthesis in 1991 at the University of Genoa, Italy. He is particularly interested in the fields of conservative dentistry and aesthetic dentistry and runs his own private practices in Sestri Levante and Portofina. In addition, he is collaborating with diverse prestigious dental offices throughout Europe, which specialise in aesthetic dentistry. He has worked as a teacher and demonstrator at the University of Genoa and as a lecturer at the universities of Siena and Madrid. Now, he is a lecturer at the International University of Catalonia, Barcelona, Spain, and visiting professor at the Aix-Marseille University in Marseille, France.

Case Overview



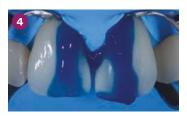
INITIAL SITUATION: 15 years after the initial non-prep treatment, the restorations were still intact, but there was room for improvement in regard to shape, especially in the vestibular area.



To ensure aesthetic results and create favorable conditions for bonding, surfaces were roughened and discolouration and debris removed with 3M™ Sof-Lex™ Extra-Thin Finishing and Polishing Discs.



The surface was cleaned and slightly roughened for etching and bonding. The selected treatment approach worked without tooth preparation.



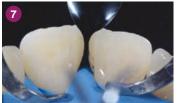
Enamel was etched with 3M™ Scotchbond™ Universal Etchant. After 15 seconds, etchant was removed by rinsing with water, and 3M™ Scotchbond™ Universal Adhesive was applied.



The preferred material for the single-shade technique was 3M™ Filtek™ Universal Restorative shade A1. The composite has a universal opacity lending a chameleon effect.



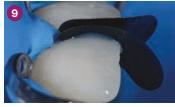
After application of the first layer of composite, the diastema was closed from the vestibular surface. Vestibular wing was filled and cured on the palatal side.



Two anatomical matrices were used to close the diastema, create natural shape and ensure tight contact between central incisors.



Matrices in contrasting colours were used. A drop of uncured flowable composite between each matrix and tooth helped hold matrix in place.



Composite material was applied to fill space between each incisor and adjacent matrix. Matrix shape helped establish tight contact points and desired anatomical form.



After light curing, composite was added from the palatal side. First matrix on right central incisor was removed.



Removal of second matrix revealed a natural shape. Composite excess was easily removed from the incisal edge.



Restoration surface was polished with 3M™ Sof-Lex™ Pre-Polishing Spiral (beige) of the 3M™ Sof-Lex™ Diamond Polishing System.



Restorations received final polish with 3M™ Sof-Lex™ Diamond Polishing Spiral (pink) of 3M™ Sof-Lex™ Diamond Polishing System.



New composite restorations blended well with natural surface of central incisors.



restorations were naturally shaped and virtually indistinguishable from natural tooth structure. The composite blended in perfectly with the colour of the surrounding teeth.

Refer to Instructions for Use (IFU) for complete product information.

To learn more:

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3M Oral Care

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