COMPOSITE - THE BIOCLEAR METHOD

Written by **Claire Burgess**

Claire Burgess presents a case study using the Bioclear Method for restoring cosmetically failed traditional composite restorations of the upper lateral incisors

Composite are the least invasive restorative option. However, traditional composites are prone to problems such as staining and chipping.

The Bioclear Method provides anatomical matrix systems for anterior and posterior composite restorations and a transformation from traditional layering. The method gives dentists the tools and equipment to produce longer lasting, stronger and aesthetically superior composites.

The following case describes how the Method was used to treat cosmetically failed traditional composite restorations of the upper lateral incisors. The challenge for this case was to blend the restorations with lighter coloured porcelain central incisor crowns, and darker natural canine teeth.

CASE STUDY

The lady was conscious of the different shades of the front six teeth, with the crowns being noticeably lighter than the adjacent teeth (Figure 1). She didn't want to replace the anterior crowns, and was also reluctant to undertake any whitening.

The traditional composite restorations of the lateral incisors UL2 and UR2 were only four years old. Both the difference in surface texture between tooth and restoration, and the restoration margins were noticeable. The aim with the Bioclear Method composites was to produce a better shade conversion from the lighter porcelain crowns centrally to the darker natural canine teeth, and improve the surface polish to match the porcelain and natural teeth.

Figure 1: Anterior view pre treatment

Figure 2: Upper lateral incisors post composite removal and cavity design using the infinity margin

Figure 3: David Clark anterior matrix in situ UL2

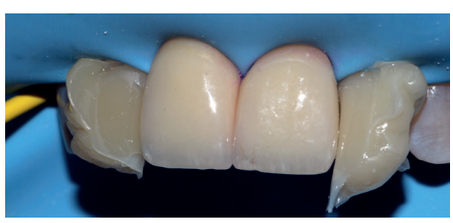

Figure 4: Post injection overmoulding

Figure 5: Two months post-treatment anterior view

A single shade was selected from the Venus Pearl shade guide. This shade was chosen to be slightly darker than than the central crowns, but blend with the body shade of the distal surface of the lateral incisors. The selected composite compules were heated using the HeatSync heater to 75 degrees.

The front six teeth were isolated using rubber dam, disclosed and the biofilm was removed by blasting the tooth with water and Aluminium Trihydroxide using the Bioclear Blaster. This was repeated to ensure all biofilm was removed.

The old composites were then removed and the margins refined to produce an infinity edge margin facially and a smaller bevel palatally (Figure 2).

Anatomical David Clark anterior matrices were selected and trimmed for the mesial surfaces of the teeth. The matrices are anatomically shaped, allowing the clinician to recreate the correct emergence profile and anatomy of the restored tooth (Figure 3). The process of heated injection overmoulding of the composite was then used to restore the teeth (Figure 4). The restorations were shaped using a combination of fine diamond burs and Soflex discs. No interdental finishing or shaping was required as the matrices provide the correct shape and a smooth mylar finish interdentally. The restoration was completed using the Bioclear Method two-step polish which produces a superior shine and polish of the restoration.

The lady was delighted with the result as the teeth looked natural in shape, had a better shine, and blended much better with both the crowns and canine teeth (Figure 5). ●

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Claire is a restorative/cosmetic practitioner at Smile Concepts and the Dominic Hassall Training Institute. After graduating in 1999 she has studied restorative and aesthetic dentistry at St Anne's Dental Centre with Paul Tipton and an MSc in Advanced Restorative and Cosmetic Dentistry which she was awarded in 2012. She lectures at the Dominic Hassall Training Institute, and at Warwick Medical School on the Restorative Dentistry MSc. She became a Bioclear instructor in 2014.

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