

Making The Blues Go Away

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Cosmetics is one of the more exciting aspects of dentistry. Every month new materials and techniques are available to wow my staff, myself, and my patients.

The patient is a young woman who had just finished college and was about to embark on a fast-paced career. During college, she had to undergo orthognathic treatment to correct occlusal alignment and temporomandibular joint problems.

Following treatment, her teeth were in the A3 range with the cuspids a little darker. A blue line existed within the margins of the crowns on the lateral incisors (Figs 1 through 4). The patient was so self-conscious her natural smile line had adjusted to block out the gum-line with her lips.

As with most cosmetic cases, I recommended beginning with vital teeth bleaching. In this case, we used Nite White Excel 16% (Discus Dental) in custom fitted trays according to the manufacturer's instructions. In 2 weeks, her teeth whitened to the B1 range. As a result of the whitening, the contrast of color between the cuspids and the other teeth was reduced.¹ Already, she was getting a bigger smile. Unfortunately, the unnatural blue-black gingival margins on the laterals became even more obvious (Figs 5 and 6).

After 1 week, the lateral crowns were removed with the NTI Turbo Crown Cutter C-8 (Axis Dental) and prepared for all ceramic Empress restorations.² The central incisors were prepared for veneers with the NTI diamond depth cutter 834016 (0.3 mm) and 834021 (0.5 mm) burs (Axis Dental). The diamond round end taper burs in coarse and fine, 850016 and 857012, were used for coarse reduction, interproximal slots, and finishing. Stump shades were taken to create B1 results (Fig 7). Polyether Impergum Pentamix impressions were taken and teeth Nos. 7 and 10 were temporized with Provisink (Fig 8).³

In the laboratory, models were



Fig 1.—Pre-treatment smile, full face.



Fig 2.



Fig 3.



Fig 4.

Figs 2 through 4.—Pre-treatment smile close up. Note the inhibited smile line.



Figs 5 and 6.—Post-whitening smile close up.



Fig 7.—Four incisors prepared for porcelain crowns and veneers.



Fig 8.—Teeth Nos. 7 and 10 temporized.



Fig 9.—Post-treatment smile close up. Note the high smile line.



Fig 10.—Post-treatment palatal view.

fabricated with a soft tissue matrix around the preparations. This allowed the restorations to be constructed supporting the patient's soft tissue architecture, while ensuring complete closure of gingival interproximal spaces. Since we were combining laminates with full-coverage crowns, we determined the most consistent tooth-to-tooth aesthetics would be achieved using the Empress staining technique.⁴

The crowns on the laterals and

the laminates on the centrals were waxed to full contour. The case was checked at this stage for proper shape, contour, and proportion. After pressing, the restorations were fit, textured, and colored to match the B1 shade. Two thin layers of glaze were applied and baked on, followed by polishing with diamond paste and a felt wheel. Lab work included a final acid etch and silane on the restorations' internal surfaces and they were complete.



Fig 11.—Post-treatment smile, full face.