

Esthetic Pressing

Mask a metal-based implant abutment using Ivoclar Vivadent's IPS e.max Press.

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Among the esthetic challenges faced by clinicians and their labs is restoring a single anterior tooth. This challenge is further complicated when the underlying supporting substructure is a metal-based implant abutment, as the esthetic requirement now becomes twofold. The restoration must successfully mask the underlying harsh metallic color of the abutment while simultaneously and invisibly blending the restoration with the adjacent teeth.

Highly esthetic IPS e.max Press high-strength lithium disilicate material and its coordinating IPS e.max Ceram layering ceramic enables ceramists to tackle esthetic restorative challenges in creative new ways. Available in high, medium, and low translucency as well as a wide shade range, technicians can select the ideal ingot for fabricating the most esthetic restoration possible, even when metal substructures are present.

TREATMENT PLAN

A 30-year-old male presented with a fractured root of tooth #8, which previously had been treated endodontically and restored with a post and crown. Upon examination, it was also noted that tooth #8 exhibited coronal displacement (Fig. A). The restorative treatment plan called for the extraction of tooth #8 and placement of a 4.1-mm implant fixture (Certain, Biomet 3i), along with an immediate provisional full-coverage crown restoration.

Following are steps for creating a single central crown that masks the underlying metal implant abutment.

- 01 After integration of the fixture, wax and invest a UCLA-type abutment for casting.
- 02 Fabricate a custom abutment using a suitable alloy (Fig. B) and finish.



IPS e.max Press

Highly esthetic all-ceramic pressing system.

Features

- Lifelike esthetics and high 400 MPa strength
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Fig. A The preoperative view showing coronal displacement of tooth #8.



Fig. B Cast and finished custom abutment.



Fig. C The abutment is placed on the working cast to verify fit and contours.



Fig. D The coping framework was waxed over the abutment.



Fig. E The fit of the pressable lithium disilicate coping was verified with the abutment.



Fig. F The coping was brushed with IPS e.max Ceram Stain and Liquid then dusted with a deep dentin powder wash.



Fig. G IPS e.max Ceram Shades and Essence materials were applied to the coping for internal shading.



Fig. H IPS e.max Ceram dentin materials were applied to create an anatomic dentin structure.



Fig. I IPS e.max Ceram enamel and Impulse materials were layered

03 Upon completion, place the custom abutment on the working cast to verify fit and contours (Fig. C).

08 Apply the dentin, the enamels, the and effect porcelains (Figs. H and I) and fire.

09 Fit and contour the restoration to the working cast and then glaze (Fig. J). The resulting restoration demonstrates the fit, form, and function—as well

as exceptionally natural and seamless esthetics—required for the anterior region (Figs. K and L). Lab

04 For the definitive crown restoration, the IPS e.max Press HO ingot was chosen as the coping framework material based on its ability to mask the alloy abutment. Wax the coping over the abutment (Fig. D) and verify fit with the abutment (Fig. E).

05 After pressing the framework, apply IPS e.max Ceram Glaze and Stain Liquid to the coping. Note: This facilitates the interface between the coping and the deep dentin ceramic powder wash (IPS e.max Ceram).

06 Dust deep dentin ceramic powder wash onto the coping (Fig. F) and fire.

07 After firing, apply the IPS e.max Ceram Shades and Essence materials to the rough surface of the coping to provide internal effects and shade modifications (Fig. G) and fire again.



Fig. J The restoration was fit and finished to the working cast.



Fig. K The abutment and definitive restoration were seated.



Fig. L The pressed restoration and metal-based abutment invisibly integrate into the patient's smile.



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