The Opacity and Translucency Game

In the anterior region where a natural result is critical, shade matching with a composite resin is only part of the equation. The opacity and translucency of a restorative material should be considered with equal importance, as the interplay with light affects the final result. A shade that is too opaque will block light and appear flat, while one that is too translucent will appear gray due to its inability to mask a dark background. In this case, a combination of opaque and translucent shades helped the clinician mimic the same optical properties of the surrounding dentition.

1. Patient with fractured central incisor.
2. A polarized picture is used to outline opacities and translucencies.
3. Composite shades are chosen; the tooth is prepared after placement of rubber dam isolation.
4. The palatal and incisal portions of the tooth can be molded using a palatal silicone matrix.
5. Note the two shades of the palatal shell chosen (ET and A2) for their different levels of opacity.
6. A more opaque and high value shade is added mesially (Opaque White) in order to raise value and hide the background.
7. The dentinal opaque core body is modeled (A3) according to the polarized picture information.
8. The outer layer is formed using a translucent shade (ET) and finishing and polishing are performed.
9. Final result after rehydration.

Mosaic® composite dentin shades are used to establish the hue and chroma of the restoration. The enamel shades do not change the hue, but will determine the value, or overall brightness. A translucent shade allows more of the underlying characterization to show through.