

The Efficient Post



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Clinical efficiency is a desirable objective for dental practitioners. We seek efficiency in several ways: we want to be able to provide a service using simple techniques, with the smallest number of materials and in the fewest number of steps possible;

we want treatment to be resolved in the fewest number of office visits, with high long-term success rates and clinically simple, effective, and predictable re-treatment options. Fiber posts have provided advantages in all of these aspects.

Traditional approaches to providing a post/core restoration have required at least 2 office visits for a cast post/core with concomitant anxiety about passivity of fit, or the insertion of prefabricated metal posts that offered the advantage of assured fit and 1-visit convenience, but still threaten tooth longevity because of inherently poor stress transfer properties¹⁻⁵ and irretrievability when compared with fiber posts.⁶

Recherches Techniques Dentaires (RTD), the creator of the original Composipost, has been manufacturing fiber posts for over 15 years. Millions of their biocompatible posts have been used, and they have demonstrated respectable longevity in vivo.⁷⁻¹⁰ Because of their stress absorption and distribution capabilities, stemming from

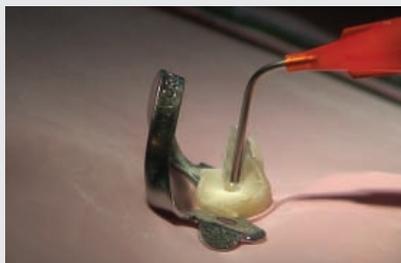


Figure 1—Canal is shaped, cleaned, and dried with preparation burs, which accompany the fiber post kit. Self-etch cement is injected into the post space using low-viscosity placement tip.



Figure 2—Fiber post (colored blue at room temperature) is seated into post space.

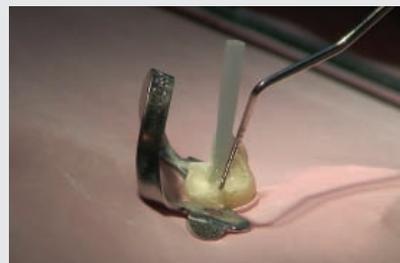


Figure 3—Excess self-etch cement is teased to cover remaining dentin.

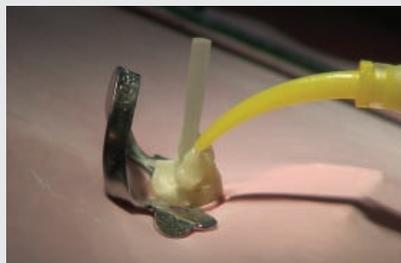


Figure 4—Dual-cure core material is injected onto post and prepared tooth surface.

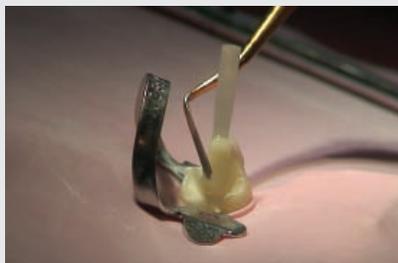


Figure 5—Core material is shaped as it starts to gel, then light-cured. Note post has become translucent at mouth temperature.



Figure 6—Excess post length is to be trimmed. Post is initially cooled with air/water spray.

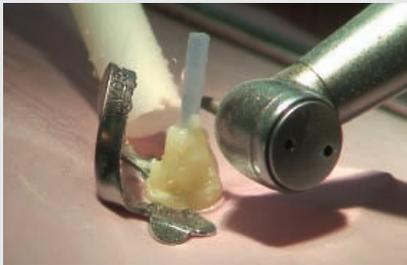


Figure 7—Color has returned to post after a few seconds of air/water spray cooling.



Figure 8—Completed post and core is tooth color at mouth temperature.



Figure 9—Before post removal, tooth is cooled with air/water spray and suction so that post can be easily visualized.



Figure 10—Post removal begins with a pilot hole and RTD re-access drill. A central channel is created the length of the post.



Figure 11—Slight remaining post material is observed around canal orifice. Original canal shaper bur is used to remove this material.



Figure 12—Final shaper bur is inserted to premeasured length to ensure complete removal of fiber post.



Figure 13—It is possible to confirm complete removal of the original post because of a complete lack of blue color in the canal.

their dentin-like modulus of elasticity, they seem incapable of fracturing roots in vivo.¹¹

Authors criticizing the strength or retrievability of some fiber posts have created confusion among cautious practitioners. It is of paramount importance to understand that not all

fiber posts are the same. RTD posts have evolved over 4 generations into today's Double Taper (D.T.) Light-Post, which is strong, yet flexes with the dentin, is translucent, radiopaque,¹² and anatomically tapered for the maximum preservation of tooth structure.¹³⁻¹⁵ It is also retrievable in minutes via a customized, corresponding re-access kit. The D.T. Light-Post has been demonstrated to be more fatigue resistant in vitro than some other fiber posts.¹⁶

RTD recently introduced another innovative technology into their post system. As with the use of tooth-colored composite restoratives, clinicians occasionally face technical difficulty distinguishing and removing these restorations because they are designed to blend

in with the color and appearance of tooth structure and can be difficult to see. This led RTD to develop the D.T. Light-Post Illusion, which is colored at room temperature, but becomes colorless in seconds at intra-oral temperatures. The color can be restored on command, by irrigating with cool water, should revisualization become necessary. The accompanying in vitro photo sequence demonstrates this color transition as the post is placed and removed (Figures 1 through 13). ©

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