

of elasticity of dentin, are radiopaque and aesthetic are emerging as the preferred choice. One of these materials is the carbon fiber reinforced epoxy resin post. The development of this post system is credited to Drs. Reynaud and Duret (RTD).<sup>4</sup> This system has shown fewer roots fractures, offers a highly retentive uninterrupted bond between the tooth through the post and the core and is retreatable.<sup>5,6</sup> Removal of the fiber post<sup>7</sup> is more practical and more conservative when considering that according to Tronstad endodontic re-treatment is required 19-44% of the time.<sup>8</sup> Carbon fiber, however, does not address unique cosmetic concerns, which are of paramount importance when using all ceramic crowns in the anterior region. For these aesthetically demanding areas there is the Light-Post (RTD).

Ideally these aesthetic posts should be biocompatible, capable of conducting light, easily removed to facilitate re-treatment, radiopaque, possess a high tensile and compressive strength and have a modulus of elasticity close to dentin. There are a plethora of posts available on the market and the clinician is faced with the formidable task of selecting the best post for the restorative task. The Light-Post manufactured by RTD of France and distributed by Biodent in Canada closely approaches the ideal properties mentioned earlier. These Light-Posts are produced from quartz crystal, the world's purest form of silica. Quartz fiber is a homogeneous, non-porous, continuous amorphous and ultra pure silica glass. The table shows clearly that all glass is not created equal; quartz fiber has greater tensile, compressive and flexural strength than other glass.

When purchasing a fiber post system it is important to look at

its composition. Look for quartz material as opposed to other types of glass. By changing the proportion of fiber and eliminat-

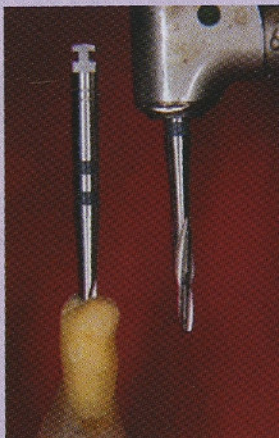
ing quartz, which on average is 25 times more expensive than E&D Glass, the fatigue resistance is severely weakened.

**Table 1**  
Comparison of physical properties of popular post materials

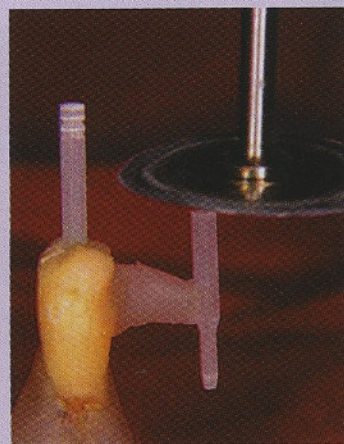
Post fiber materials	E Glass	D Glass	Carbon	Quartz
Tensile Strength MPa	2300	1650	3500	3600
Tensile Modulus GPa	72	55	125	78
Compressive Strength (UD) MPa	1000	850	1400	1000
Flexural Strength (UD) Mpa	1200	1000	1700	1400
Resistance to fatigue	poor	poor	excellent	excellent



**FIGURE 3** Depth Gauge at 6 mm. The minimum length required for retention of post.



**FIGURE 4** #1 Compositopost Drill taken to a depth of 6mm. Only the top portion of the drill can cut.



**FIGURE 5** Light Post cut to proper length.



**FIGURE 6** Microbrush inside canal. Useful in the application of acid and bonding agent.



**FIGURE 7A** One Step Dual Cure Bond.



**FIGURE 7B** Sealbond Cement a homogeneous mixture of catalyst and base.