



The Forgotten Retention: Core, Posts, and Pins

CR Survey Data: June 2018

- **Respondents:** 1009 total; 96% general dentist; average 31 years in practice

Core Build-Up

- **Do you place core build-up?** 90% Yes, 10% No

• Popular brands

- 20% Build-It (various) (Pentron)
- 11% Core Paste XP (DenMat)
- 7% Absolute Dentin (Parkell)
- 7% Clearfil Photo Core (Kuraray Dental)
- 5% MultiCore (various) (Ivoclar Vivadent)
- 4% LuxaCore (various) (DMG America)
- 4% CompCore (various) (Premier Dental)
- 3% Visalys Core (Kettenbach)
- 3% FluoroCore 2+ (Dentsply Sirona)
- 52 additional brands with ≤1% use

• **Opinion: Most important characteristics of core build-up** (multiple responses possible)

- 81% bond to tooth (see CR comment A)
- 73% radiopacity
- 71% dual-cured
- 70% strength
- 69% ease of dispensing
- 65% proper viscosity
- 61% adaptation
- 58% reasonable cost

Posts

- **On average, respondents place posts in approximately 1/3 of endodontically treated teeth.**

• Popular brands

- 41% ParaPost (various) (Coltene)
- 14% FibreKleer and FibreKor (Pentron)
- 11% RelyX Fiber Post 3D (3M)
- 8% Flexi-Post and Flexi-Flange (Essential Dental Systems)
- 6% D.T. Light Post (Bisco Dental)
- 4% EndoSequence Fiber Post (Brasseler USA)
- 30 additional brands with ≤2% use

• Popular post materials

- 51% fiber-reinforced composite
- 18% stainless steel (see CR comment B)
- 17% titanium alloy
- 7% carbon fiber
- 7% pure titanium
- 2% custom cast metal

• **Opinion: Most important characteristics of posts** (multiple responses possible)

- 71% reasonable cost (see CR comment C)
- 70% radiopacity
- 67% strength
- 50% proper diameter
- 36% proper length
- 31% shape: parallel sides
- 30% shape: tapered
- 27% flexibility

• **Opinion: When are posts necessary?** (multiple responses possible) (see CR comment D)

- 90% tooth with one half or less of supra-gingival tooth structure present
- 38% canine in canine-guided occlusion (canine potentially needing post)
- 38% abutment for FPD (fixed dental prosthesis)
- 35% bruxer
- 33% tooth with heavy incisal guidance
- 29% single tooth without adjacent teeth

• **Opinion: What are the benefits of using posts?** (multiple responses possible) (see CR comment E)

- 87% better attachment of core build-up/remaining tooth structure to tooth root
- 42% Increase in overall tooth strength

Pins

- **Do you use pins?** 55% Yes, 45% No

CR Comments on Survey Results

- A:** Such a high dependence on bond strength of a core build-up to tooth structure may be unrealistic.
- B:** The nickel content in stainless steel has long been proven to be problematic for allergy-prone patients.
- C:** Acceptable radiopacity should be the most important characteristic of posts used. Cost is secondary.
- D:** Most clinicians seem to be aware of how insufficient tooth structure can warrant a post. However, many other clinical situations are just as crucial for post placement.
- E:** Most clinicians understand how a post can better attach a core to the apical portion of the tooth, although fewer clinicians are convinced of the strength factor. Both effects have been proven clinically.

