

Shaping Smarter, Sealing Better:

A Clinical Perspective on the EdgeFile® X7, EdgeBioceramic Sealer, and the NEW EdgeFile® X7 Gutta Percha Points

By Biraj Patel, BDS, MS, MJDF, MEndo, Diplomate of the American Board of Endodontics
Harley Street Centre for Endodontics | London, UK

FOR ME, ENDODONTICS has always been about more than simply treating teeth, it's about restoring comfort, preserving natural dentition, and improving quality of life. Whether I'm working at the Harley Street Centre for Endodontics in London or teaching post-graduate students, my philosophy remains consistent: evidence-based, minimally invasive, and centred on the patient's best interests.

Modern patients expect more than pain relief; they expect treatment that is biologically respectful and durable. Achieving that balance of efficiency, safety, and long-term preservation of tooth structure depends heavily on the tools we use. Among the innovations that have refined my daily workflow, the EdgeFile® X7 system, EdgeBioceramic Sealer, and new EdgeFile® X7 Gutta Percha Points together represent a seamless, evidence driven solution, enabling me to shape smarter and seal better.

When I first began using the X7, I immediately noticed how well it balanced cutting efficiency with flexibility. The files are made from EdgeEndo's proprietary FireWire™ heat-treated nickel-titanium alloy, giving them remarkable resistance to cyclic fatigue and the ability to follow even the most challenging curvatures safely. In practice, this translates into greater control and confidence, especially in complex anatomies without worrying about separation risk.

The X7 is available in both 4% and 6% tapers, allowing me to adapt shaping to the specific anatomy of each tooth. I mostly choose the 4% taper as I want to preserve cervical dentin and maintain long-term strength. The 6% taper, on the other hand, performs beautifully in larger or straighter canals, such as the palatal canals of maxillary molars or distal canals of mandibular molars, where a slightly wider preparation improves irrigant flow and debris removal without sacrificing conservation.

A typical sequence in my hands begins with a size 10 stainless-steel hand file to establish a smooth glide path, followed by the X7 17/.04 to refine it. Once the path is reproducible, I progress through the larger sizes according to the case. In vital or conservative cases, I usually complete shaping at 25/.04 or 30/.04, which allows adequate irrigant exchange while maintaining structural integrity. In necrotic or infected canals, I generally shape to at least 30/.04, and for wide, straight canals I may selectively use the 6% taper to improve cleaning efficiency. Throughout the process, I prioritise active irrigation with sodium hypochlorite and EDTA, ensuring that mechanical shaping always supports biological debridement.

The featured case illustrates the X7's capabilities. The patient presented with a maxillary first molar that had a sharply curved MB2 canal and apical sclerosis. After establishing a glide path, the X7 17/.04 negotiated the curvature smoothly and predictably, allowing enlargement to 30/.04 in the mesiobuccal and distobuccal

canals and 40/.04 in the palatal. Irrigation was carried out with ultrasonic activation, and obturation was completed using Edge-Bioceramic Sealer and the new EdgeFile® X7 .04 Gutta Percha Points. The postoperative radiograph showed well-centred, dense obturation with minimal dentin removal, which for me is the ideal combination of safety and efficiency.

The EdgeBioceramic Sealer has become a cornerstone of my obturation protocol because of its biological behaviour and reliability. It is a calcium silicate-based material that sets in the presence of moisture, forming hydroxyapatite that bonds chemically to dentin and supports periapical healing. Its net expansive nature means it avoids the shrinkage that can occur with resin-based sealers. The sealer expands slightly as it sets, improving adaptation to canal walls and reducing the potential for microleakage. Its high pH contributes to antibacterial activity, while its excellent flow helps it reach lateral canals and irregularities that might otherwise remain untouched.

The sealer is premixed and ready to use, providing consistent handling and generous working time. Once set, it is dimensionally stable, biocompatible, and radiopaque, giving confidence both clinically and radiographically. For clinicians who value predictability, it represents a material that is both biologically sound and user-friendly.

The same precision is evident in the new EdgeFile® X7 .04 Gutta Percha Points, which have been engineered to match the X7 files exactly. Each cone has a uniform .04 taper over the first 12 mm, which prevents taper lock and allows smooth, effortless placement to full working length. Because they are geometrically matched to the file system, apical control is highly predictable, and trimming is rarely required.

Their dimensional accuracy and thermal stability make them reliable for both warm vertical compaction and single-cone obturation, while their radiopacity makes postoperative evaluation straightforward. The points seat to length smoothly and provide good tactile feedback. When paired with the EdgeBioceramic Sealer, they produce a dense, continuous fill that feels biologically sound and mechanically solid.

For me, every decision, from the file design to the final obturation technique, should aim to relieve pain, preserve function, and extend the life of the tooth. The EdgeFile X7, EdgeBioceramic Sealer, and X7 Gutta Percha Points have helped me achieve that consistently. They reflect not just technical refinement, but a philosophy of care that values preservation, predictability, and biological respect.

To request a product sample for evaluation, please visit:
<https://edgeendo.com/product-evaluation/>

