

Dear Reader,

Vince Lombardi so eloquently stated, "Practice does not make perfect. Only perfect practice makes perfect." In other words, we can perform a procedure repeatedly yet not obtain the expected outcome for success. We must continually advance in all disciplines of dentistry in order to provide our patients with the most predictable treatment regimens possible, understanding that the greatest variable that stands in our way is the human variable. Elevating the standards of endodontic care is inexorably tied to an important dynamic, our armamentaria.¹ The objective of endodontic treatment has remained a constant since root-canal treatment was first performed: the prevention and/or treatment of apical periodontitis such that there is complete healing and an absence of infection.² The most important advancements in clinical endodontics forever changed the endodontic landscape with the emergence and development of four technologies.^{3,4}

The *dental operating microscope*, not only provides us superior vision to diagnose cracks and track vertical fractures^{3,5}, but also to locate anatomy and then subsequently address that anatomy. *Sonic and ultrasonic instruments* have allowed us to be able to carry out refinement of access openings, locate calcified canals in a controlled and predictable manner, and eliminate the smear layer, and biofilm that has remained in the canal after instrumentation.^{3,6,7} *NiTi files* have allowed more predictable canal shapes,³ in reduced time compared to stainless-steel files, while maintaining the original canal anatomy and producing less extrusion of debris.^{8,9} *Mineral trioxide aggregate* is a remarkable and biocompatible restorative material that has become the standard for pulp capping and root perforation, and has salvaged countless teeth that previously had been considered hopeless. Perhaps the greatest international attention in recent years has focused on methods to improve endodontic disinfection in the root-canal system.³ Files shape; irrigants clean. We rely on our irrigants and irrigant delivery systems to penetrate into the complex anatomy that our instruments cannot shape, in order to eliminate the organic tissue and bacterial inoculum that exists within. The early works of Hess suggest this is ongoing to be challenging by virtue of its complexity.¹⁰

As I fly 32,000 feet over the Pacific Ocean after lecturing and running Essential Endo Clinical Skill set programmes in both Europe and Asia, it boggles my mind how, with all the modern technologies that exist today to provide predictable endodontics, the fundamentals are often ignored: *Vision, tooth isolation and irrigation*. An overwhelming number of general dentists and, surprisingly, endodontists worldwide do not use rubber dams and provide endodontic treatment through a matte of caries. Saliva is allowed to slop into the pulp chamber like the pungent backwater of a contaminated estuary. This is analogous to providing state-of-the-art building technology with the finest of materials but constructing the foundation on a bog-land. To take short-cuts during treatment to reduce costs, and to justify it to oneself, is to retreat into a mindset of persistent cognitive dissonance. In order to achieve endodontic nirvana and enjoy the successes that the recent technologies allow us to achieve, we must get back to fundamentals and provide grass roots education in a stepwise, systematic manner to those who will be providing the treatment."

"Science and research will elevate the specialty of endodontics to its rightful pinnacle."¹¹ "The cornerstone to our specialty's integrity and relevance must be built on a strong foundation of randomised clinical trials and evidenced-based endodontics."¹¹ The future of endodontics is bright and holds incredible promise as we continue to develop new techniques and technologies that will allow us to perform endodontic treatment painlessly and predictably, and continue to satisfy one of the main objectives in dentistry, that being to retain the natural dentition.¹²



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Editorial note: A complete list of references is available from the publisher.