



Minimally Invasive Endodontics: A Fancy Trend or A Clear Road for the Future?

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The terms “minimally invasive” were probably pronounced for the very first time with a realistic implication in late 80’s. Endoscopic surgery began to progressively replace a more invasive open surgery, with minimal or no damage to surrounding healthy tissues, and a more favorable post-operative period. Since then the concept has been influencing many other medical disciplines, including dentistry and consequently endodontics.

Modern endodontic microsurgery is performed with the operating microscope, ultrasonic and microsurgical instruments, dramatically improving treatment outcomes, post-operative quality of life, and long-term stability of soft tissues esthetics.

Vital teeth with deep caries and intra-operative exposure of the dental pulp can be treated with the aim to preserve pulp vitality with encouraging success rates.

Endodontic regenerative procedures can be definitely considered

minimally invasive. The endodontist of the future will probably have to deal more with scaffolds and growth factors than NiTi instruments and guttapercha.

However, the actual concept of minimally invasive endodontics is still strongly related to the preservation of sound tooth structure during access cavity opening, canal scouting, glide path, and instrumentation. For this reason the design of many recent instruments has been inspired by a minimally invasive philosophy. The topic is still controversial and the concept is accounted responsible for a less efficacious disinfection of the root canal system. However, new irrigation protocols and devices, and antibacterials which are emerging from researches on nanotechnology seem to be the answer to those accusations.

Minimally invasive endodontics is definitely more than just a fancy trend. It is the way to shape the future.