

## **INSTRUMENTATION: STAINLESS STEEL FILES VS. NiTi FILES**

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### ABSTRACT

Over the past two decades, the nickel–titanium (NiTi) rotary instruments have highly improved the quality of the cleaning and shaping of the root canals. The superelasticity and shape memory of these instruments reduce the possibility of the canal transportation along with saving the time for both the patients and the clinicians. Several commercial types of these instruments, produced by different manufacturers, have currently become available by modifying the characteristics of the wonder NiTi alloy and also the cross-sectional shapes, cutting edges, tapering and numbers and distances of the flutes of the instruments. Up to this date, five generations for NiTi rotary instruments have been described according to the time of introduction, properties, and method of application. The presentation will demonstrate Canal instrumentation the traditional way with stainless steel files, different files, different techniques with possible lots of preparation mistakes vs. Today's new heat treated NiTi files with their conical preparation that's helping for better irrigation.