

TARA MCMAHON



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Tara Mc Mahon obtained her Master in Dental Science (MSD) at Université Libre de Bruxelles (ULB) in Belgium in 2011. After which she first followed an advanced Master in Dental Science focused on Endodontics and Aesthetic Dentistry and then she completed a two year course of specialization in Endodontics at ULB. Since 2014, Tara is an academic and clinical instructor for undergraduate students at the Brussels University (ULB) and became in 2017 a lecturer for the undergraduate endodontics course. Tara is also actively involved in training the post-graduate students during their endodontics specialisation (ULB). She works in her private practice limited to endodontic and microsurgery in Brussels - Belgium. Dr. Tara Mc Mahon wrote several scientific articles and is a board member of « Quintessence Endo, revue française d'endodontie ». She has performed lectures and hands on courses during national and international congresses.

DOES HEAT TREATED NiTi FACILITATE ENDODONTIC THERAPY?

Endodontic treatments are intimately linked to nickel titanium since the past 25 years and the arrival of the first NiTi rotary files for canal preparation. Since Dr. John McSpadden designed the first rotary file in 1992, the files have undergone intensive changes. The manufacturing of NiTi rotary files evolved immensely over the last few years with the arrival of heat treated NiTi. Since heat treatment technology is mastered by industrialists, a lot of improvement have being made. Indeed, nowadays they can apply a specific heat treatment to a specific file. According to the design of the file, its core diameter, cross section, cutting angles etc, each file will respond differently to NiTi heat treatment. Finding the precise heat treatment is a real

challenge in order to improve cyclic fatigue, centering ability while maintaining the cutting ability of the file. It is also a challenge, to have a file in martensite configuration at room temperature that will sustain these characteristics at body temperature. The aim of the lecture is to go over the evolution of heat treatment and describe the advantages and the limits provided by heat treated NiTi, in our everyday practice.