



## **Dr. Kishor Gulabivala**

Kishor Gulabivala is Head of Endodontology and Department of Restorative Dentistry at the Eastman Dental Institute, University College London. He is also an honorary Consultant in Restorative Dentistry at the Eastman Dental Hospital, University College London and Hospital Trusts.

Kishor graduated from Birmingham Dental School in 1980. He completed the MSc in Conservative Dentistry in 1984 and trained at the Eastman until his appointment as Lecturer in 1987, when he established the first MSc in Endodontics in UK jointly with (the late) Prof Pitt-Ford. The MClinDent and Specialist Training programmes in Endodontology were set-up in 1999. He was entered on the UK Specialist Lists in Restorative Dentistry, Prosthodontics and Endodontics in 2000 and completed his PhD on microbial infections of teeth in 2004. He was Training Programme Director for Restorative Dentistry from 2006 to 2012; and is currently Training Programme Director for Endodontics in London at Health Education London. His research interests are centered in Endodontology and focus on outcomes. Kishor has published widely both on clinical as well as research questions mainly on Endodontics with over 100 peer-reviewed papers and over 100 research abstracts. He is co-editor/co-author of Endodontics, 2014 (4<sup>th</sup> Edn, Elsevier Science). He was Associate Editor for the International Endodontic Journal for five years (2008-2013) and is Past-President (2013-2014) of the British Endodontic Society.

## **ABSTRACT**

### **Lecture Title: Predictable & Evidence-based Root Canal Treatment**

### **Lecture duration: 60 mins; Professor Kishor Gulabivala**

The last 10-20 years have seen a revolution in the development of the mechanical aspects of root canal treatment, yet the success rates have not increased in 100 years! A plethora of root canal preparation instruments and filling techniques now enable the specialist endodontist and general dental practitioner, alike, to produce technically satisfactory or even excellent results. True to the history of root canal treatment procedure development, the biological considerations have lagged behind in the practitioner consciousness:

“We are not trained to think in terms of biological concepts but we are to act in mechanical procedures” (Noyes 1922)

The developments in mechanical preparation of root canal systems has left notions of debridement some paces behind with the result that rapid mechanical root canal preparation may leave root canal systems poorly debrided but well-obtured. The growing confidence of practitioners in preparing canals and filling them to radiographic gold standards, coupled with commercial pressures to maintain a viable practice may drive accomplished artisans to embrace simplified single visit treatments. The precise definition of a technically optimal root canal treatment procedure remains a challenge because its biological correlate cannot be clinically demonstrated, as no real-time chair-side test of bacterial contamination exists.

The purpose of this presentation is to take stock of available evidence to describe a coherent picture of the sequence of events during root canal treatment, leading from the disease entity to its cure. The clinical and biological factors that constrain treatment success will be highlighted. The important problem of fluid dynamics in the root canal system, in particular in the apical anatomy will be highlighted, leading to the rationale for the growing numbers of irrigation devices on the market.

The lecture will discuss why periapical lesions take so long to heal, why some take longer than others to heal, and why others fail to heal. It will also highlight why patients sometimes complain, despite technically adequate treatment that the tooth does not “feel right” or continues to exhibit discomfort. The lecture should establish a clear biological perspective to the technical procedures, leading to a rationale for why certain practical steps are key.

### **Succinct overall aims and learning objectives**

**Aim:** The lecture will aim to integrate strands of biological, clinical and technical evidence to present a synthesis of the nature and problems of apical periodontitis and its solution, root canal treatment.

**Learning outcomes:** Participants should leave with at least a familiarity, if not an understanding, of the nature of periapical disease and how root canal treatment works. They will understand why certain practical steps cannot be omitted or ignored during root canal treatment. Participants should go away with a clear insight about the current best evidence on the effect of each procedural step on the disease process and the technical (skills) and procedural facets that are likely to enhance periapical healing and patient satisfaction