



The aim of this course is the presentation and analysis of diagnostic and therapeutic problems related to Endodontics and familiarization of the dentist with the chemo-mechanical preparation and the three-dimensional obturation of the root canal system.

Merimna Institute

Dental Education Center

HELLENIC MINISTRY OF EDUCATION AND RELIGIOUS AFFAIRS E.O.P.P.E.P.Licence Number K.E.ALBUM.1 2101624

Trainers



Christos Dandakis

He was born in 1965 in Alexandroupolis. Bachelor of Dentistry in 1991. He worked as a dentist in Germany until 1995. Graduate of program of post-graduate studies, School of Dentistry of Aristotle University of Thessaloniki, in the department of Endodontology. Research Associate of the Greek Society Continuing Dental Education.

Participate in seminars as a trainer in the field of Endodontics. Maintains a private practice in Thessaloniki and works in Dental Care Thessaloniki with exclusive focus on Endodontology. Presentations and attendance at international conferences and symposia, as well as publications in Greek and international journals on the field of Endodontology.



Konstantinos Kodonas

He was born in Kozani in 1979. Graduate from Dental School, Aristotle University of Thessaloniki in 2005. Completed his postgraduate studies in the direction of Endodontology in 2008. Received the Scholarship of Excellence PhD candidates from the Research Committee of Aristotle University of Thessaloniki in 2011, while in 2012 he was awarded the Doctoral Degree (School of Dentistry, AUTH) quoting a research project regarding the role of dental pulp stem cells in Regenerative Endodontics.

He is currently a Postdoctoral Fellow with primary objective to investigate the applications of bio – active materials in the regeneration of the pulp-dentin complex. He has participated as a speaker in Greek and international conferences and has published research papers in international scientific journals.

He is a member of the International Association of Dental Research and the Hellenic Society of Endodontics. He works with exclusive focus on Endodontology in the city of Kozani.



Kalyva Maria

Was born in Athens in 1974. She graduated from the University of Athens Dental School in 1998. She subsequently completed her postgraduate education in Endodontics at the Aristotle University of Thessaloniki (AUTH) Dental School in 2001. Following that, she commenced a PhD which was completed in 2010 when she was nominated Doctor of Endodontology based on her Thesis entitled "The role of TGFb1 in the dental pulp repair process. Experimental study".

During her postgraduate studies she participated actively in the clinical training of students in the field of Endodontics at the Dental School of AUTH. She has participated in Greek and International conferences as a speaker and she has published research papers in international scientific journals. She is a member of the Hellenic Society of Endodontics since 2002 and her clinical practice is exclusively focused in Endodontics.





Introductions

Clinical Endodontology was recently dominated by plenty of technical developments related to new equipment, modern tools and materials and innovative techniques in order to provide more comfort to the dentist in the treatment process. The crucial role of microbes and by-products of their metabolism in the development of apical periodontitis has been well-documented. Therefore, endodontic treatment should be considered as the clinical treatment of a microbial aetiology disease aiming to eliminate bacteria and prevent from re-infection. The achievement of those objectives requires thorough mechanical preparation, combined with appropriate irrigants, intracanal antiseptics and three-dimensional obturation of root canal system.

The aim of this course is the presentation and analysis of diagnostic and therapeutic problems related to Endodontics and familiarization of the dentist with the chemo-mechanical preparation and the three-dimensional obturation of the root canal system. In selected clinical cases, modern treatment protocols will be presented. Modern scientific data about specific fields in Endodontics will be reviewed through the analysis of these cases.

The diagnostic approach to pulpal and periapical disease is usually a complex process, that requires combination analysis of symptoms and radiographic findings. In particular, the diagnosis is based on data obtained from medical and dental history, responses to pulp sensibility tests and radiographic interpretation. Clinical examination and modern imaging techniques contribute significantly to the aforementioned goals. As part of this presentation, a brief reference to symptoms and signs of pulpal and periapical diseases and presentation of the modern classification of those diseases will be done.

A prerequisite of proper chemo-mechanical preparation and obturation of root canals is the knowledge of the morphology the root canal system of the tooth. With the development of modern research protocols, it is now evitable for the clinical dentist to display and analyze specific morphological characteristics of the root canal system of specific tooth types. Through the presentation of contemporary studies, concerns related to the number of root canals, the relationship between them, and the shape and location of root canal orifices will be analyzed.

Root canal preparation is of utmost interest. It is a process truly laborious, but also crucial for the successful completion of root canal treatment without iatrogenic complications.



Particular emphasis is placed on the use of rotary endodontic files, so that the clinician can perform adequately even in the most challenging morphologies. Clinical protocols of engine-driven endodontic file systems will be presented in detail, in order to provide the skill required for everyday use of rotary instrumentation.

Irrigation of the root canal system is a matter of daily clinical practice in endodontics. A variety of solutions and regimens have been proposed and investigated thoroughly. Yet, there are aspects of irrigation that are still described and taught mainly from empirical data. A modern approach to irrigants and irrigating techniques will be attempted via a scientifically based overview of the irrigation protocols during mechanical instrumentation. Issues regarding the activation of irrigation solutions, the removal of smear layer, and the use of chelating agents and protocols of final irrigation in Endodontics will be discussed.

Modern views on the techniques, materials and systems for three-dimensional obturation of system root canals will also be analyzed. Specifically, the aforementioned techniques may be classified into two categories:

- 1) techniques based on cold lateral condensation of gutta-percha points and
- techniques based on warm vertical compaction of gutta-percha. It is necessary to know and use at least one warm technique in order to be used in appropriate cases.

It is essential not only to report and analyze these fields of the endontic science from a theoretical perspective, but also from the practical one, through clinical cases and practice course.

The participants must have with them extracted teeth from all tooth types in order to be well-trained even in more difficult and challenging cases.





Programme Analysis

A. Diagnosis

- 1. Biology of pulp and periapical tissues.
- 2. Pathology of pulp and periapical tissues.
- 3. Diagnosis-Differential diagnosis.
- 4. Diagnostic tools.
- 5. Magnification tools (Dental Operative Microscope).
- 6. Managing of dental emergencies.
- Treatment plan. Evaluation of endodontic progno stic factors prior to restoration.
- 8. Discussion-considerations.

B. Root canal anatomy

C. Morphology of root canal system

D. Pulp chamber access

- 1. Rubber dam isolation.
- 2. Disinfection.
- 3. Burs/instruments for access cavity preparation.
- 4. Objectives, guidelines and rules for access cavity preparation.
- 5. latrogenic errors in access cavity preparation.
- 6. Discussion-considerations.

E. Practice training

- 1. Rubber dam placement.
- 2. Access cavity preparation.
- 3. Rules for improvement of access cavity preparaion.
- 4. Location and negotiation of root canal orifices.











F. Chemomechanical preparation

Debridement with rotary nickel-titanium instruments

- 1. Scientific documentation.
- 2. Modern equipment.
- 3. Shape memory of rotary files.
- 4. Apex locators.
- 5. Work length estimation.
- 6. Root canal preparation-clinical protocols.
- 7. Determination of apical enlargement.
- 8. Clinical cases.
- 9. Instrument fracture. When and why?

Irrigation

- 1. Irrigation methods.
- 2. Activation of irrigation solutions.
- 3. Gel or solution. Differences, advantages and drawbacks.
- 4. Smear layer removal.
- 5. Dentin conditioners.
- 6. Irrigation protocols in engine-driven instrumentation.
- 7. Discussion-considerations.

G. Practice training

- Modern equipment of engine-driven root canal instrumentation.
- 2. Familiarization with endodontic motor systems.
- 3. Root canal shaping.
- 4. Irrigation protocols-activation of irrigation solutions.
- 5. Determination of apical enlargement.
- 6. Discussion-considerations.

H. Root canal obturation

- 1. Three-dimensional root canal obturation.
- 2. Obturation techniques/materials/devices.
- 3. Efficacy of different combinations of them.
- 4. Discussion-considerations

I. Practice training

Practice training with modern materials/devices and with at least 2 representative obturation techniques





General Information

The aim of this course is the presentation and analysis of diagnostic and therapeutic problems related to Endodontics and familiarization of the dentist with the chemo-mechanical preparation and the three-dimensional obturation of the root canal system.

Merimna Institute invites for first time three Endo specialists that will offer all their knowledge and participate interactively during the workshops. Every delegate will practice in two different preparation systems and two different root canal obturation systems. Especially training will be take place by microscopes and digital X-rays

Necessary materials:

The participants must have with them extracted teeth from all tooth types in order to be well-trained even in more difficult and challenging cases. (incissor, canine, premolar, molar)



Information / Registration

Location: Merimna Institute, Athens, Greece

Dates: June 16 - 17, 2018

Language: Greek (Translation in English)

Fees: 400 € (includes: Handout, Coffee breaks,

Lunch, Certificate of attendance)

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HELLENIC MINISTRY OF EDUCATION AND RELIGIOUS AFFAIRS E.O.P.P.E.P Licence Number Κε.Δι.Βι.Μ.1 2100892

Vouliagmenis A. 272A

Ag. Dimitrios, Athens Greece (Metro Station Agios Dimitrios)

PHONE: (+30) 210 9734000 E-MAIL: imerimna@otenet.gr www.merimnaseminars.gr



