

Mechanical Root Canal Preparation With Niti Rotary

This new edition is a complete guide to paediatric dentistry for undergraduate and postgraduate dental students. Divided into nineteen sections, the book begins with an introduction to the specialty, oral examination, teeth identification and numbering, imaging, and growth and development of a child's face, mouth and teeth. The next chapters discuss diet and nutrition, plaque control and fluorides, and dental caries. Dental subspecialties including endodontics, orthodontics, restorative dentistry, periodontics, and surgery, each have their own dedicated sections. The concluding chapters cover oral pathology, forensics, lasers, dental advances, and research. The fourth edition has been fully revised to provide the latest information in the field and features many new topics including zirconia crowns, revascularisation and pulp regeneration, silver diamine fluoride, general anaesthesia, and presurgical nasoalveolar moulding in the management of cleft lip and palate. Key points Complete guide to paediatric dentistry for dental students Fully revised fourth edition with many new topics Highly illustrated with more than 1000 clinical photographs, diagrams and tables Previous edition (9789351522324) published in 2014

Ingle's Endodontics, 7th edition, is the most recent revision of the text that has been known as the "Bible of Endodontics" for half a century. The new edition, published in two volumes, continues the tradition of including the expertise of international leaders in the field. Eighty-six authors contributed cutting-edge knowledge and updates on topics that have formed the core of this book for years. New chapters reflect the ways in which the field of endodontics has evolved over the 50 years since the pioneer John I. Ingle authored Endodontics. Ingle's Endodontics will continue to be the standard against which all other endodontic texts will be measured. The 40 chapters are arranged in two volumes under three sections: The Science of Endodontics; The Practice of Endodontics: Diagnosis, Clinical Decision Making, Management, Prognosis; and Interdisciplinary Endodontics. With contributions from the world's experts in all phases of the specialty, Ingle's Endodontics, 7th edition promises to be an indispensable dentistry textbook, an essential part of every endodontist's library. The definitive endodontics reference, Cohen's Pathways of the Pulp is known for its comprehensive coverage of leading-edge information, materials, and techniques. It examines all aspects of endodontic care, from preparing the clinician and patient for endodontic treatment to the role the endodontist can play in the treatment of traumatic injuries and to the procedures used in the treatment of pediatric and older patients. Not only does Hargreaves and Cohen's 10th edition add five chapters on hot new topics, it also includes online access! As an Expert Consult title, Cohen's Pathways of the Pulp lets you search the entire contents of the book on your computer, and includes five online chapters not available in the printed text, plus videos, a searchable image collection, and more. For evidence-based endodontics research and treatment, this is your one-stop resource!

The field of oral microbiology has seen fundamental conceptual changes in recent years. Microbial communities are now seen as the fundamental etiological agent in oral diseases through their interface with host inflammatory responses. Study of structured microbial communities has increased our understanding of the roles of each member in the pathogenesis of oral diseases, principles that apply to both periodontitis and dental caries. Against this backdrop, the third edition of Oral Microbiology and Immunology has been substantially expanded and rewritten by an international team of authors and editors. Featured in the current edition are: links between oral infections and systemic disease revised and updated overview of the role of the immune system in oral infections thorough discussions of biofilm development and control more extensive illustrations and Key Points for student understanding Graduate students, researchers, and clinicians as well as students will find this new edition valuable in study and practice. The field of oral microbiology has seen fundamental conceptual changes in recent years. Microbial communities are now seen as the fundamental etiological agent in oral diseases through their interface with host inflammatory responses. Study of structured microbial communities has increased our understanding of the roles of each member in the pathogenesis of oral diseases, principles that apply to both periodontitis and dental caries. Against this backdrop, the third edition of Oral Microbiology and Immunology has been substantially expanded and rewritten by an international team of authors and editors. Featured in the current edition are: links between oral infections and systemic disease revised and updated overview of the role of the immune system in oral infections thorough discussions of biofilm development and control more extensive illustrations and Key Points for student understanding Graduate students, researchers, and clinicians as well as students will find this new edition valuable in study and practice.

Cohen's Pathways of the Pulp Expert Consult - E-Book

Clinical Efficiency of Materials and Technologies for Fixed Prosthodontics

Text Book of Endodontics

Cohen's Pathways of the Pulp Expert Consult

Current Therapy in Endodontics

Information Technology in Biomedicine is an interdisciplinary research area, that bridges the gap between tethodological achievements in engineering and clinical requirements in medical diagnosis and therapy. In this book, members of the academic society of technical and medical background present their research results and clinical implementation in order to satisfy the functional requirements of authorized physicians for the benefit of the patients. An extended area is covered by

the articles. It includes biomedical signals, medical image processing, computer-aided diagnosis and surgery, biometrics, healthcare and telemedicine, biomechanics, biomaterials, bioinformatics. Section on bronchoscopy presents the basis as well as new research studies performed in this field. Papers present various theoretical approaches and new methodologies based on fuzzy sets, mathematical statistics, mathematical morphology, fractals, wavelets, syntactic methods, artificial neural networks, graphs and many others.

This book provides clinicians with up-to-date, scientifically based guidance on the most important stages of endodontic treatment, i.e., cleaning and shaping of the root canal space, including mechanical preparation and chemical disinfection. Five internationally recognized experts present and discuss recent developments and new perspectives in the field. Important advances in root canal preparation and irrigation procedures are described with the aid of numerous high-quality illustrations. A key feature of the book is the detailed attention devoted to the latest research findings and to their impact on contemporary evidence-based clinical guidelines and modern clinical practice. On this basis, simple treatment protocols are proposed that take the anatomy of the root canals fully into account. In addition, emerging problems and trends are considered. The book will be an excellent resource for clinicians and advanced practitioners who are seeking to update their practice.

A large-scale evidence-based study of cracked molar teeth was recently conducted on 2858 patients, which shows only 0.2% were extracted whereas 98% restored and 3% endodontic treated.1 If only a part of the teeth is damaged removal of the whole piece which does not mean therapy. Root-canal treatment means almost the same thing. As most parts of a tooth can be regenerated except the crown made of enamel, could we avoid endodontic treatment and reattach the tooth?

Nickel-Titanium alloys are smart materials exhibiting unique properties such as superelasticity and shape-memory effect. The material has been used as orthodontic wires in the dental field for over 20 years. This book is a comprehensive overview to the field of Ni-Ti Materials and the physical, chemical and mechanical properties of this versatile alloy. In addition, complications and challenges exhibited in applications are also discussed.

**Proceedings of First International Conference on Emerging Trends in Mechanical Engineering
A Compendium of Scientific and Clinical Perspectives**

NiTi Materials

A Clinical Guide to Applied Dental Materials1

Problem Solving with Canal Engineering

This book presents the current state of research on the basic scientific aspects of root canal biofilm biology within a clinically applicable context. Root canal biofilms are complex polymicrobial structures adhering to the root canal surface that are formed by microorganisms invading the pulpal space of teeth, and are associated with persistent root canal infections. Concerted efforts to study root canal biofilms have been made in the past decade, resulting in the publication of observational and experimental studies that detail the morphology and biology of these structures in infected root canals. In addition to confirming that bacteria in root canals do not exist in free-floating planktonic states as previously assumed, this new information on root canal biofilm infections has provided an opportunity to re-evaluate conventional clinical protocols and improve endodontic therapeutic measures.

This book offers a comprehensive and up-to-date overview of the restoration of teeth retained through root canal treatment, from the perspective of adhesive dentistry. The challenge of adhesion to root dentin is first explained and guidance provided on assessment of the restorability of endodontically treated teeth. The types of prefabricated passive post are then described in detail. The advantages and disadvantages of each type are outlined, with identification of the factors that influence post selection. Further topics include the ferrule effect, evidence-based clinical applications of fiber posts and new methods to lute fiber posts to the root canal without dentin adhesives. In addition, frequent myths are identified and dispelled. All aspects are illustrated with clinical and laboratory images, diagrams and high-resolution electron microscopy photographs.

Textbook of Endodontics is a comprehensive text on current practice, trends and philosophy in the art and science of endodontics. The book has been specifically written keeping the curriculum needs of a final year undergraduate student in mind, and is strictly as per the Dental Council of India (DCI) guidelines. About the Author : - Anil Kohli completed his graduation and postgraduation from Faculty of Dental Sciences, King George's Medical College, Lucknow. He is widely respected for his immense contributions to the field of Dentistry all over the world. In appreciation of his distinguished services, he was conferred the 'Padma Shree' in 1992 and the Padma Bhushan' in 2005. He has also received the coveted 'Dr B C Roy National Award' as well as the 'S S Bhatnagar Award' from King George s Medical College, Lucknow, for his outstanding work. Dr Kohli has published several research papers in National and International journals, headed several professional bodies and is currently the President of Dental Council of India. In

recognition of his outstanding contributions, he has been conferred the Honorary rank of 'Brigadier' in the Army Dental Corps. He is also Dean, Faculty of Dentistry, Baba Farid University, Punjab. He is an Adjunct Professor to Boston and Tufts University. He has been awarded fellowship of Royal College of Dental Surgeons of England. He is the Chairman of Education Committee, Asia Pacific Dental Congress (APDC) and a member of the Education Committee of Fédération Dentaire Internationale (FDI). He has to his credit 10 honorary PhD / DSc degrees from various national and international universities. This book reviews the available information on bacterial disinfection in endodontics, with emphasis on the chemical treatment of root canals based on current understanding of the process of irrigation. It describes recent advances in knowledge of the chemistry associated with irrigants and delivery systems, which is of vital importance given that chemical intervention is now considered one of the most important measures in eliminating planktonic microbes and biofilms from the infected tooth. Recommendations are made regarding concentrations, exposure times and optimal sequences. Possible complications related to the use of the different solutions are highlighted, with guidance on response. In addition, clinical protocols are suggested on the basis of both clinical experience and the results of past and ongoing research. Throughout, a practical, clinically oriented approach is adopted that will assist the practitioner in ensuring successful endodontic treatment.

Endodontics E-Book

Chemical disinfection of the root canal system

Endodontics

Harty's Endodontics in Clinical Practice E-Book

Cohen's Pathways of the Pulp - E-Book

This book is a guide to proven, current clinical endodontic practice. It is designed, primarily, with the undergraduate readership in mind but is also suitable for anyone pursuing specialist training, including extended skills in endodontics, and general dental practitioners undertaking CPD, or wishing to keep up-to-date. The seventh edition is available with an online question bank containing MCQs and Clinical Cases. Practical approach to the subject, taking the reader through every step of endodontic practice from its scientific basis to patient assessment and through to clinical techniques Helpful pedagogic features – including Learning Outcomes and Summary Boxes – help reinforce learning International experts and contributors help ensure good coverage and currency of information Explores areas of debate when they exist to reflect differing approaches to treatment intervention Explains the potential impact of systemic conditions and disorders, as well as medications, on endodontic treatment planning and management Discusses the diagnosis of orofacial pain and the appropriate use of antibiotics and analgesics Explores the maintenance of pulp vitality and the prevention of apical periodontitis in the context of operative dentistry Provides an overview of instruments and devices used during endodontic treatment Describes the fundamental principles of canal filling using gutta-percha, as well as the use of alternative materials, and newer root filling techniques Discusses the management of dental trauma with emphasis on accurate diagnosis, timely and appropriate treatment, and follow-up Explores the interface between endodontic-periodontal disease in the context of diagnosis, treatment and prognostic assessment Discusses common challenges such as inadequate pain control and problems with preparation and filling of the root canal system Written at a level which is ideal for dental students, general dental practitioners and those pursuing specialist training or seeking to keep up-to-date Comes with access to an online question bank containing a wide range of MCQs and Clinical Cases to help reinforce learning! Richly illustrated with over 80 colour artworks – many created by the Gray 's Anatomy illustration team – and 350 photographs, many of which are previously unpublished Explores advances in our understanding of the role of microorganisms in the pathogenesis of pulpal and periradicular diseases and the role of host defence response against root canal infection Explores the use of newer imaging techniques such as three-dimensional tomography in determining pulp space anatomy and in treatment planning Explains recent advances in material technology, molecular biology and regenerative medicine in the management of deep caries and maintenance of pulp vitality Explores the effective use of existing and newer chemomechanical preparation techniques and intracanal medication for thorough root canal system decontamination Explores advances in the techniques available for restoring endodontically treated teeth

Stay up on the latest research and techniques in endodontics with Cohen 's Pathways of the Pulp, 12th Edition.

Written by a team of internationally renowned experts and trusted for more than 40 years, this definitive guide covers the science, theory, and practice of endodontics. Full color illustrations and detailed radiographs guide readers through each step of endodontic care — from diagnosis and treatment planning to proven techniques for managing pulpal and periapical diseases. This new twelfth edition also boasts the very latest evidence-based research and techniques, reorganized and condensed chapters, plus other features designed to help you locate important information quickly and easily. Complete with access to Expert Consult, it 's everything you need to stay ahead in the field of endodontics. Extensive illustration collection includes over 2,000 full-color photos, line art, and radiographs to clearly demonstrate core concepts and reinforce the essential principles and techniques of endodontics. Video clips and case studies demonstrate key procedures such as palpation of the masseter muscle, introsseous anesthesia with the X-tip system, dentin hypersensitivity, and more. Diverse and respected contributor pool includes experts from many national- and international-based dental education programs. NEW! Updated content and new images

incorporate the most recent developments in research and clinical endodontic techniques. NEW! Additional topics cover pulp biology, pathobiology, diagnosis, treatment planning, pain control, isolation, access, cleaning and shaping, obturation, restoration, assessment of outcomes, emergencies and surgery. Each online topic comes with assigned reading lists, a PowerPoint lecture, written lesson objectives, and example exam questions. NEW! Compliance with the Commission on Dental Accreditation Curriculum ensures that the needs of all dental programs are met. NEW! Reorganized sections now divide chapters by those covering clinical endodontics, those covering the biological basis of endodontics, and chapters which detail endodontics in private practice to make content easier for both clinicians and students to navigate. NEW! Condensed chapters remove unnecessary duplication of content across the text and make the physical text lighter and easier to use.

Shape memory alloys are suitable for a wide range of biomedical applications, such as dentistry, bone repair and cardiovascular stents. Shape memory alloys for biomedical applications provides a comprehensive review of the use of shape memory alloys in these and other areas of medicine. Part one discusses fundamental issues with chapters on such topics as mechanical properties, fabrication of materials, the shape memory effect, superelasticity, surface modification and biocompatibility. Part two covers applications of shape memory alloys in areas such as stents and orthodontic devices as well as other applications in the medical and dental fields. With its distinguished editors and international team of contributors, Shape memory alloys for biomedical applications is an essential reference for materials scientists and engineers working in the medical devices industry and in academia. A comprehensive review of shape memory metals and devices for medical applications Discusses materials, mechanical properties, surface modification and biocompatibility Chapters review medical and dental devices using shape memory metals, including stents and orthodontic devices

Clean root canal systems are essential for successful endodontic treatment. With contributions from leading endodontists from around the world, Dr. Nestor Cohenca here presents the etiology of endodontic disease caused by the endodontic biofilm and all therapies available to predictably disinfect the root canal system, thus increasing successful endodontic outcomes. Disinfection of Root Canal Systems: The Treatment of Apical Periodontitis is an evidence-based manual that describes root canal anatomy, the endodontic biofilm, and the role of disinfection before presenting the most up-to-date methods of irrigation and disinfection. Individual chapters are devoted to each method, such as positive pressure irrigation, apical negative pressure irrigation, sonic activation, photodynamic therapy, laser technology, and ozonization and electrochemical activation. Clinical photographs throughout show proper irrigation and disinfection techniques.

Total Root Canal Management Using the Sargenti N2 Method

Information Technologies in Biomedicine

Bewertung des Dentinabtrages durch die Wurzelkanalpräparation mit drei verschiedenen Nickel-Titan-Aufbereitungssystemen

A Clinical-Based Strategy

Recent Advances in Root Canal Irrigation Techniques

Dentistry has been undergoing enormous changes, and the field of endodontics has certainly been at the forefront. Recent advances in technology, materials, and equipment have changed the way endodontics is practiced today, thereby facilitating treatments with greater efficiency, precision, and success, ultimately leading to better outcomes.

Current Therapy in Endodontics encompasses the recent discoveries and applications for this field in one clinically relevant volume. Evidence-based presentation of recent advances in the field of endodontics Objective comparison of materials and instruments on the market Tables present key data and instruction for quick viewing and comprehension

Problem Solving in Endodontics, 5th Edition, by James L. Gutmann and Paul Lovdahl, offers updated techniques and an evidence-based approach to the most common procedures performed at chairside. Ideal for both endodontists and general dentists, this thoroughly revised reference combines the precision of quality endodontic care with achievable and pain-free outcomes for the patient. Each chapter has been carefully designed so that you'll quickly grasp the anatomy, the instruments needed, and what procedures should be performed -- all supplemented by boxed clinical case examples and tips. Going beyond problem solving, it also addresses the major issues in diagnostic, anatomic, restorative, periodontic, traumatic, and surgical aspects of tooth retention. Provides chairside guidance for the endodontic procedures most commonly performed by endodontists and general dentists.

Entire text has expanded concepts that are verified in new drawings and clinically relevant cases. Integrates new technologies and materials into every chapter that when applied result in predictable and optimal outcomes. Establishes clear parameters for the retention of teeth. Correlates optimal patient outcomes with an evidence-based approach. Reflects the practical expertise of renowned endodontics authority and past President of the AAE, Dr. James Gutmann, and endodontics specialist, Dr. Paul Lovdahl. Every chapter has been completely rewritten, and concepts have been integrated for quick recognition, understanding and application to common, everyday challenges. The Surgery section has been expanded with new case studies, and more in-depth coverage of indications and applications for surgeries, such as crown-lengthening technique, periradicular surgery to

manage perforations and resorptive defects, and other endodontically-related problems. The approach of this text is to teach the clinician how to recognize and analyze the problems encountered and to synthesize the data for realistic and successful outcomes. To help you make the best clinical decisions, this edition contains new chapters and new sections on diagnosis and treatment planning that presents crucial information on Radiographic Images, Differential Diagnosis of Bony Defects, Diagnosis of Treatment Failure, and Diagnosis of Non-odontogenic Pain. Retains a succinct, user-friendly format with a new design that includes hundreds of NEW high-quality clinical photos and art. Offers broader coverage of tooth trauma with established treatment planning outcomes. ALL references are updated and annotated in the text. Provides a practical, problem-solving approach with new chapters on: radiographic technique and interpretation; impact of pulp disease on the periodontium and vice versa; treatment failure and tooth retention; how to differentiate problems of pulp/periodontium from those that are non-odontogenic in nature; vital pulp therapy; and more.

The effectiveness of irrigation relies on both the mechanical flushing action and the ability of irrigants to dissolve tissue. The flushing action of irrigants helps to remove organic dentinal debris and microorganisms from the canal. The success of endodontic treatment depends on the eradication of microbes from the root canal system and prevention of reinfection. The root canal is shaped with hand and rotary instruments under constant irrigation to remove the inflamed and necrotic tissue, microbes/ biofilms, and other debris from the root canal space. The main goal of instrumentation is to facilitate effective irrigation, disinfection and filling. Indeed, it has been suggested that the flushing action may be more important than the ability to dissolve tissue. Irrigation of the root canal with antibacterial solutions is considered an essential part of chemo-mechanical preparation. Irrigation is complementary to instrumentation in facilitating removal of bacteria, debris and necrotic tissue, especially from areas of the root canal that remain unprepared by mechanical instrumentation.

The book titled "RETREATMENT IN ENDODONTICS: A NIGHTMARE FOR DENTIST" is the first book to be introduced which has covered all the aspects of endodontic failures and their retreatment in endodontics. This book has elaborated all the details regarding the endodontic failures and their retreatment in endodontics which are the most difficult conditions in the field of dentistry and endodontics. There was no any book present which covered all the aspects related to endodontic failures and their retreatment under one heading. This book will enlightened endodontists as well as general dentist with massive information about the endodontic failures and their retreatment. This information will help them to apply this knowledge in the treatment of the patients in much better way. Hence this book will create a turnaround in the endodontic procedures. Authors have taken a lot of pain and efforts in bringing this book forward.

Disinfection of Root Canal Systems

Oral Microbiology and Immunology

The Treatment of Apical Periodontitis

Retreatment in Endodontics: A nightmare for endodontist

Endodontics: Principles and Practice E-book

Endodontics is the prevention, diagnosis and management of diseases of the tooth pulp and the tissues surrounding the root of a tooth. This new edition is a complete guide to endodontics for dental students. Divided into 39 chapters, the book covers numerous procedures and case studies and the text is further enhanced by more than 1500 clinical photographs, diagrams and tables. The fourth edition has been fully revised, and new topics added, to provide students with the latest information and advances in the field. Key points and clinical tips are highlighted for each topic and questions are included at the end of each chapter to assist exam preparation. Key points Complete guide to endodontics for dental students Fully revised, new edition providing latest advances in the field Includes more than 1500 clinical photographs, diagrams and tables Previous edition (9789350909522) published in 2013

This lavishly illustrated, practical guide to endodontic treatment covers the latest developments in instrumentation and filling techniques. Ideal for all dental practitioners involved in endodontic therapy [root canal treatment], this new edition has been fully updated throughout and now includes a new author team from the Eastman Dental Institute. Practical approach to the subject takes the reader through every step of the clinical procedures from patient assessment to specific problem solving More than 1500 superb illustrations, including colour coded algorithms, present clinical, diagnostic and practical information in an easy-to-follow manner Offers sensible 'best practice' routes through often conflicting approaches to treatment A full chapter on radiography emphasises its importance in both diagnosis and treatment Includes a chapter on the avoidance of litigation Written at a level which ensures a wide appeal to the general dental practitioner and those commencing specialist training Includes discussion of the 3D imaging of root canal systems using microCT Discusses the use of NiTi instruments, both hand and rotary, which are used by an increasing proportion of dentists Learning outcomes stated at the start of each chapter help the readers plan their study

Fully updated for this second edition, The Principles of Endodontics integrates theory with clinical practice to produce a modern and relevant guide to a core aspect of dental practice. This essential guide covers all the key areas of the subject, from patient management and treatment planning, to advanced restorative techniques. Chapters on treatment outcomes and dealing with complications and post-treatment disease

prepare the reader for every eventuality in the field. Two new chapters on the restoration of the endodontically treated tooth and on the dento-legal aspects of endodontics have been added to bring this text up-to-date with modern clinical practice. Fully illustrated throughout, colour photographs and line drawings help readers to understand complex theories and procedures. Each chapter contains references to essential sources of further reading, while the straightforward and clear style of the text demystifies the complex subject.

Biomechanical preparation, disinfection and obturation all together constitute equally important phases of endodontic treatment.

Chemomechanical preparation of the root canal through a combination of mechanical instrumentation and antibacterial irrigation is the critical stage in canal disinfection. During the last decade, several new nickel titanium instruments for manual root canal preparation as well as for use in a rotary endodontic handpiece have been developed in order to facilitate the difficult and time consuming process of cleaning and shaping the root canal system and to improve the final quality of root canal preparation. The comparative evaluation of the new instruments to remove smear layer material produced during endodontic preparation is unknown. Aim of this study is to assess smear layer formation following canal preparation using Endowave, K3 and ProTaper using Scanning Electron Microscope.

Comparison of Root Canal Cleanliness with Different Rotary Instruments

Volume 2

Fiber Posts and Endodontically Treated Teeth

Microleakage and Size of Root Canal Preparation in Endodontics

Proceedings

This book describes the latest minimally invasive approaches in endodontics and explains the principles that guide them. The advantages and limitations of these approaches are critically analyzed with the intention of defining new endodontic gold standards. The trend toward the use of more conservative procedures within endodontics reflects the wider adoption of minimally invasive dentistry in general and is being fostered by the introduction of new materials, devices, instruments, and techniques as well as the use of magnification and advanced three-dimensional diagnostic imaging technologies. In this book, readers will find clear explanation of these advances and their impacts. Minimally invasive access to the root canal system is described, and detailed attention is devoted to the application of novel strategies in root canal instrumentation and disinfection, root canal filling, coronal restoration, retreatment, and endodontic surgery. Minimally invasive alternatives to complete endodontic treatment, such as vital pulp therapies, and to dental extraction and implant placement, including surgical extrusion, intentional replantation, and tooth autotransplantation, are also discussed. Minimally Invasive Approaches in Endodontic Practice will be of value for endodontists at all levels of experience.

Endodontics: Principles and Practice E-book

Find the latest evidence-based research and clinical treatments! Cohen's Pathways of the Pulp, 11th Edition covers the science, theory, and practice of endodontics with chapters written by internationally renowned experts. Full-color illustrations and detailed radiographs guide you through each step of endodontic care - from diagnosis and treatment planning to proven techniques for managing pulpal and periapical diseases. New to the print edition are seven new chapters, and the eBook version adds three more. As an Expert Consult title, Cohen's Pathways of the Pulp lets you search the entire contents of the book on your desktop or mobile device, and includes videos, case studies, and more. Edited by noted specialists Kenneth Hargreaves and Louis Berman, this book is the definitive resource in endodontics! Print version of the text includes 27 comprehensive chapters and meets the CODA requirements for endodontic dental education. EBook version of the text consists of 30 searchable chapters, including the 27 chapters in the print version, and features videos, PowerPoint® slides, review questions, case studies, and more; this expanded version makes it easy to find clinical answers quickly, and meets the needs of students, clinicians, and residents in endodontics. Videos and animations demonstrate key procedures such as palpation of the masseter muscle, introsseous anesthesia with the X-tipT system, dentin hypersensitivity, indirect ultrasound, palpation of the temporomandibular joint, and ultrasonic settling. Over 2,000 illustrations include full-color photos and line art, along with a wide range of radiographs, clearly demonstrating core concepts and reinforcing the essential principles and techniques of endodontics. NEW co-editor Dr. Louis H. Berman joins lead editor Dr. Kenneth M. Hargreaves for this edition, and a respected team of contributors includes experts from many U.S.-based dental education programs, as well as programs in Canada, the U.K., Norway, Sweden, France, Germany, Italy, and Switzerland. NEW chapter organization reflects the chronology of endodontic treatment with three comprehensive sections: Clinical Endodontics, focusing on core clinical concepts, and Biological Basis of Endodontics and Endodontics in Clinical Practice, both with information that advanced students, endodontic residents, and clinicians need to know. NEW! Three chapters are available in the eBook: Understanding and Managing the Anxious Patient, Endodontic Records and Legal Responsibilities, and Endodontic Practice Management. NEW Radiographic Interpretation chapter clarifies the diagnostic process with coverage of imaging modalities, diagnostic tasks, three-dimensional imaging, cone beam computed tomography, intra- or post-operative assessment of endodontic treatment complications, and more. NEW Pain Control chapter addresses the management of acute endodontic pain with coverage of local anesthesia for restorative dentistry and endodontics, along with nonnarcotic analgesics and therapeutic recommendations. NEW Evaluation of Outcomes chapter helps you achieve optimal treatment outcomes with information on topics such as the reasons for evaluating outcomes, outcome measurements for endodontic treatment, and the outcomes of vital pulp therapy procedures, non-surgical root canal treatment, non-surgical retreatment, and surgical retreatment. NEW Root Resorption chapter covers the early detection, diagnosis, and histological features of root resorption, as well as external inflammatory resorption, external cervical resorption, and internal resorption. NEW Iatrogenic Endodontics chapter addresses failed treatment scenarios with key information on the event itself, the etiology, soft and hard tissue implications and symptoms, and treatment options and prognosis; the events include cervico-facial subcutaneous emphysema, sodium hypochlorite accidents, perforations (non-surgical), inferior alveolar nerve injury, surgical, sinus perforation, instrument separation, apical extrusion of obturation materials, and ledge formation. NEW Vital Pulp Therapy chapter provides an overview of new treatment concepts for the preservation of the pulpally involved permanent tooth, covering topics such as the living pulp, pulpal response to caries, procedures for generating reparative dentin, indications and materials for vital pulp therapy, MTA applications, and treatment recommendations. NEW Bleaching chapter addresses procedures that can be utilized during and following endodontic treatment to eliminate or reduce any discoloration issues, reviewing internal and external bleaching procedures and their impact on pulpal health/endodontic treatment - with presentations of cases and clinical protocols.

The aim of the present study was to compare three different mechanical nickel-titanium file systems with regard to the amount of root canal wall dentin removed. The residual dentin thicknesses after root canal preparation were determined both in mesial and

distal root canals from coronal to apical or over the entire root canal length as well as in the area of the furcation ("danger zone"). The study included 18 mandibular molars, each with two mesial and one distal root canal. The 18 sample teeth were scanned by micro-CT, randomly divided into three groups and prepared with the fully rotating nickel-titanium systems ProTaper Next® (Dentsply Sirona, York, USA), F6 SkyTaper® (Komet, Brasseler GmbH, Lemgo, Germany) and the reciprocal nickel-titanium system WaveOne® (Dentsply Sirona, York, USA). All mesial root canals were prepared up to ISO size 25 and all distal root canals up to ISO size 40. This was followed by another micro-CT scan. The Amira 5.6 visualization software was then used to analyze the micro-CT images and determine the dentin removal along the entire root canal length. On average, the ProTaper Next® file system removed the least dentin from the entire root canal. Compared to F6 SkyTaper®, there was no significant difference in dentin removal. There was a significant difference when comparing ProTaper Next® to WaveOne®. On average, WaveOne® removed more dentin than ProTaper Next® and F6 SkyTaper®. There was no significant difference between the WaveOne® and F6 ...

Restoration of Root Canal-Treated Teeth

Textbook of Pediatric Dentistry

The Principles of Endodontics

Endodontologie

The Root Canal Biofilm

A new textbook on the practical use of dental materials suitable for undergraduate dental students and qualified dental practitioners taking post-graduate exams in dental materials, restorative dentistry, operative techniques, advanced conservative dentistry, endodontics, removable prosthodontics and implantology. Highly practical and evidenced-based throughout - closing the gap between theory and practice to give readers confidence in selecting and preparing the right material for the patient and circumstance Amply illustrated in full colour with over 1000 photographs, artworks and tables to clearly demonstrate both materials and techniques Helps readers appreciate the important relationship between clinical manipulation and the practical use of dental materials Describes how to properly select a given material for any situation, how to use materials to best effect and when and how not to use them 'Good practice' and 'Warning' boxes help readers recall important information Uniquely written by a practising dentist with academic experience and an academic in biomaterials with extensive clinical experience Self-assessment questions with full answers helps readers consolidate learning and prepare for exams Designed to improve clinical success and improve patient outcomes Perfect for all undergraduate and postgraduate students studying dental material science and/or restorative dentistry - Der aktuellste methodische Wissensstand - Alle wesentlichen Informationen übersichtlich und leseleicht zusammengefasst - Bild und Text bilden eine klar strukturierte Einheit - Vorstellung der verschiedenen Therapiemethoden, Erläuterung der Vor- und Nachteile - Die Behandlungsabläufe werden Schritt für Schritt erklärt und durch erstklassige Abbildungen, Grafiken und Tabellen illustriert - Ein internationales Autorenteam bürgt für den State-of-the-Art in der Endodontologie - Ideal zur Aufklärung der Patienten - Hinweise auf mögliche Fehler und Komplikationen geben Sicherheit - Ästhetisch und elegant: ein Schmuckstück für jede Praxis Neu: - Top-aktuell! - Berücksichtigung aller neuen Methoden und Behandlungskonzepte - Neue Themen: - Notfallendodontie/Schmerztherapie - Maschinelle Aufbereitung - Neue Instrumente und Materialien - Ozon Einsatz - Chirurgische Endodontie - Mikrochirurgie - Endodontie und Parodontologie - Endodontie und Gesamtorganismus - Erfolgsaussichten Aus dem Inhalt - Pathobiologie und Diagnostik - Befunderhebung und Diagnose - Anatomie - Instrumente und Materialien - Kofferdam - Lokalanästhesie - Trepanation - Wurzelkanalaufbereitung - Desinfektion - Wurzelkanalfüllung - Endodontie im Milch- und Wechselgebiss - Revision endodontischer Misserfolge - Mikrochirurgische Endodontie - Traumatische Zahnverletzung - Postendodontische Versorgung - Bleichen von Zähnen

Dentistry is a branch of medicine with its own peculiarities and very diverse areas of action, which means that it can be considered as an interdisciplinary field. BIODENTAL ENGINEERING II contains the full papers presented at the 2nd International Conference on Biodental Engineering (BioDENTAL 2012, Porto, Portugal, 7-8 December 2012). The contrib

Endodontic treatment is directed toward the prevention or curing apical periodontitis. Since the main etiology of apical periodontitis is bacterial infection, the primary goals of root canal therapy are to eliminate microorganisms from the root canal system and to prevent reinfection via micro leakage. Bacterial elimination is accomplished through chemo-mechanical preparation. Although microbiological studies have shown that larger apical preparation sizes may lead to a greater reduction in remaining bacteria, but there are two concerns in this regard: the impact of final canal shape and size on root strength and the impact of apical enlargement on the outcome of endodontic treatment. There is a reverse relationship between the size of root canal preparation and the two aforementioned factors. In the present study, we evaluated the effect of canal size, both coronally and apically on the amounts of micro-leakage using a new quantitative method: glucose penetration. Since leakage occurs through two surface areas, increasing the surface area may lead to an increase in micro-leakage.

Biomedical Applications

eine Mikro-Computertomographie-Studie

An Invitro Study

Prevention, Identification and Management

Mathematical and mechanical analysis for the therapy of fractured posterior teeth

The monograph "Clinical Efficiency of Materials and Technologies for Fixed Prosthodontics" is dedicated to elucidation of essential notions from the area of the Fixed prosthodontics. It deals with cast metal post and core systems, fiber-reinforced polymer post systems, metal-ceramic technology, all-ceramic systems, etc. It describes basic clinical and laboratory procedures involved in the manufacturing of these dental prostheses. It should serve as a guide for further research in any of the given areas described, and a manual for the most essential principles and concepts in the given subdiscipline of the Medical dentistry.

Provides a comprehensive, full colour, step-by-step guide to endodontics. It covers the principles and practice of endodontics and is presented in a simple, no-nonsense style that should help to demystify this essential aspect of the clinical practice of dentistry.

Problem Solving in Endodontics - E-Book

Ingle's Endodontics

Shaping for Cleaning the Root Canals

An Adhesive Dentistry Perspective

A Clinical Guide to Applied Dental Materials