
This book is designed to provide the reader with a full understanding of the role of cone beam computed tomography (CBCT) in helping to solve many of the most challenging problems in endodontics. It will shorten the learning curve in application of this exciting imaging technique in a variety of contexts: difficult diagnostic cases, evaluation of inter- and intracanal therapy, nonsurgical and surgical treatments, early detection and treatment of resorptive defects, and outcomes assessment. The ability to obtain an accurate 3D representation of a tooth and the surrounding structures by means of noninvasive CBCT imaging is changing the approach to clinical decision making in endodontics. Clinicians long accustomed to working in very small, three-dimensional spaces are now being prompted by the limitations of the new technology, as well as being daunted by the detailed information contained in this book will help endodontists to take full advantage of the important benefits offered by CBCT.

The new 3rd Edition of this fundamental text covers basic, need to know topics in endodontics, written at a level that’s ideal for both the undergraduate dental student as well as the practitioner. The book’s unique approach includes detailed coverage of the basic sciences and separate chapters on practical topics such as referral, patient education, procedural accidents, and radiography. New chapters, expanded topics, and additional illustrations bring this Edition fully up-to-date with the fast-pace of endodontics. Includes some new chapters, expanded topics, and additional illustrations Six page 2 colour inserts (72 pictures) Over 300 new illustrations

The authoritative reference that continues to present a systematic analysis of the scientific basis of endodontology The third edition of Essential Endodontology: Prevention and Treatment of Apical Periodontitis has been revised and updated to include the most recent developments in the field, maintaining its position as the major scientific text on apical periodontitis. Making an often-complex subject more digestible, the book explores the scientific basis of endodontology, adopting a systematic approach to the available clinical and laboratory evidence. Promoting apical periodontitis as a disease entity, the comprehensive third edition focuses on its biology and clinical features, enabling the reader to have a better understanding of its diagnosis, prevention and treatment. In addition to thorough updates and full colour illustrations throughout, a new chapter on regenerative endodontics has been added to this edition. Written with a focus on the scientific basis of endodontic treatment, this chapter reviews the current information and developments in this cutting edge field. Provides helpful learning outcomes in each chapter Contains full colour illustrations, enriching the text Features contributions from a noted panel of international experts, including new contributors from across the globe Regarded as a vital companion to the pursuit of excellence in postgraduate and specialist education, Essential Endodontology is an indispensable and accessible resource for practicing endodontists, postgraduate students of endodontology and those seeking professional certification in endodontology.

This clinically oriented book covers all aspects of the evidence-based decision-making process in multidisciplinary management of the natural dentition. The book opens by clarifying the principles of evidence-based decision making and explaining how these principles should be applied in daily practice. Individual chapters then focus specifically, and in detail, on endodontic, periodontal, and prosthetic considerations, identifying aspects that need to be integrated into decision making and treatment planning. Evidence-based decision making with regard to preservation of the natural tooth versus extraction and implant placement is then discussed, and a concluding chapter examines likely future trends in dentistry and how they may affect clinical decision making. The authors include leading endodontists, periodontists, and prosthodontists. Given the multidisciplinary and comprehensive nature of the book, it will be relevant and interesting to the entire dental community.

Regenerative endodontics is the generation and replacement of diseased, damaged or absent pulp. This issue of Dental Clinics of North America provides a clinical view of regenerative endodontics and its aims, methods and techniques. Endodontic Materials in Clinical Practice Endodontic Materials in Clinical Practice delivers a much-needed comprehensive and clinically oriented reference to the materials used in endodontic practice. It provides complete details on the properties of the materials required for specific techniques in order to help in the selection of the appropriate materials and improve patient outcomes. Comprehensive in scope and filled with helpful illustrations, the book covers endodontic materials used from the pulp to the root-end. In addition, the text considers the location and technique for each of the materials presented. Designed to be a practical and accessible reference, the book is organised by specific clinical procedure. Presents an illustrated guide to all materials used in endodontic practice Focuses on the clinical application for each material Explains why specific materials are used Includes information on how to select the correct material Considers locations and techniques in making material decisions Written for specialist endodontists and residents, dental material specialists, post-graduate students, general dentists, and dentistry students. Endodontic Materials in Clinical Practice is an essential resource for selecting the right materials for specific techniques.

A problem-based text that presents a wide range of real cases in endodontics Clinical Cases in Endodontics presents actual clinical cases, accompanied by academic commentary, that question and educate the reader about essential topics in endodontic therapy. It begins with sets of cases illustrating the most common diagnoses and the steps involved in preparing for a given treatment plan. Subsequent chapters continue in this style, presenting exemplary cases as the basis of discussing various treatment options: nonsurgical root canal therapy, internal and external file refinement, retreatment, surgical therapy, and treating incompletely developed apices. The progression from common to increasingly challenging clinical cases enables readers to build their skills, aiding the ability to think critically and independently. The Clinical Cases series is designed to recognize the centrality of clinical cases to the profession by providing actual cases with an academic backbone. Clinical Cases in Endodontics presents real-life cases in a clinically relevant format. This unique approach supports the trend in case-based and problem-based learning, thoroughly covering the full range of endodontic treatment. Unique case-based format supports problem-based learning Promotes independent learning through self-assessment and critical thinking Covers all essential topics within endodontics Includes numerous illustrations and diagnostic aids The Clinical Cases series is an excellent aid for students preparing for board examinations, and clinicians wanting to learn the most recent evidence-based treatment protocols.

Endodontic Radiology, 2nd edition, is a unique reference that examines all aspects of radiographic imaging related to endodontics. Dr. Bettina Basrani and a team of endodontic residents preparing for board examinations, and clinicians wanting to learn the most recent evidence-based treatment protocols. This issue of Dental Clinics of North America provides a clinical view of regenerative endodontics and its aims, methods and techniques. Endodontic Radiology, 2nd edition, is a unique reference that examines all aspects of radiographic imaging related to endodontics. Dr. Bettina Basrani and a team of endodontic residents preparing for board examinations, and clinicians wanting to learn the most recent evidence-based treatment protocols. This issue of Dental Clinics of North America provides a clinical view of regenerative endodontics and its aims, methods and techniques.
to the subject by building upon a clear explanation of the underlying scientific principles. Prepared by international contributors to ensure a wider appeal. Written at a level suitable for students, general practitioners, and Specialists. Cone Beam Computed Tomography in Endodontics is a new chapter on diagnosis, integral to treatment planning, patient management, and care. Recent research findings on the pathogenesis of endodontic disease and the management of persistent infection in previously treated teeth. A completely rewritten chapter on the restoration of endodontically treated teeth. Newer treatment modalities, such as regenerative endodontic therapies. "Endodontics" is written to support development of NiTi instruments, both hand and rotary, which are increasingly popular for preparing root canals. Published for the first time in full colour with over 185 new images!

Concise Conservative dentistry and Endodontics is a comprehensive book covering the entire syllabus prescribed by the Dental Council of India (DCI). It is written in easy-to-understand format which is enriched with numerous line diagrams, tables and highlighted text for conservative dentistry and endodontics. Contains 49 chapters under 2 sections covering basic topics, specialized materials and techniques used in Conservative dentistry and Endodontics. Includes latest topics like Minimal Intervention dentistry, evidence-based dentistry, dental implants, CBCT scans, and uniquely developed special software, for virtual planning of the endodontic treatment. 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 root canal system. Every effort is made regarding the proper application of irrigation techniques. Possible correlations of irrigation solutions, exposure to irrigation solutions, guidance for practitioners. Special devices and recent innovations in apex locators and nickel-titanium instruments have, however, made procedures significantly easier and more practical for non-specialists. This book will help conscientious clinicians to master molar endodontics with well-established and established clinical methods.

Atlas of Clinical Gross Anatomy uses over 500 incredibly well-executed and superbly presented illustrations and instructions to guide you through all the key structures you'll need to learn in your gross anatomy course. This medical textbook helps you master essential surface, gross, and radiologic anatomy concepts through high-quality photos, medical illustration, and concise text. A step-by-step understanding of surface anatomy, gross, and radiographic anatomy will help you realize the full potential of your education. This textbook will thus be an excellent companion for the endodontic student.

This book focuses on hydraulic calcium silicate-based materials available in clinical dentistry, used as pulp capping materials, root canal sealers, root-end fillers, or root-canals. Root canal filling, coronal restoration, retreatment, and endodontic surgery. Minimally invasive approaches to complete endodontic treatment, such as vital pulp therapy, and to dental extraction and implant placement, including surgical extrusion, intentional replantation, and tooth transplantation, are also discussed. Minimally invasive Approaches in Endodontic Practice will be of value for endodontists at all levels of experience.

This book offers a pragmatic approach to endodontic therapy for permanent molars, based on up-to-date evidence. All chapters were written by experts in the field, and focus on preparation for treatment, vital pulp therapy, root canal shaping, access cavity preparation, outcome assessment, retreatment, surgical access, and specific aspects of restorations for root canal-treated molars. The role of micro-CT in visualizing canal anatomy is compared to cone beam CT, and detailed information on the clinical use of these tools, such as irrigation adjuncts and engine-driven preparation tools is provided. Important steps are illustrated in clinical photographs and radiographs, as well as by schematic illustrations, which will guide students and clinicians through the various aspects of endodontic care. This book will assist both endodontists and general practitioners in achieving an optimal outcome when confronted with the time-consuming and challenging task of treating a fractured instrument within the root canal - a still frequent circumstance despite the plethora of improvements in instrument design, alloy composition, and manufacturing processes.

Endodontic Microbiology, Second Edition provides a comprehensive reference to the microbiology, pathogenesis, management, and healing of endodontic pathosis, emphasizing the importance of understanding the role of the microbiota in endodontic disease, and its impact on the outcome of treatment. Throughout, a practical, clinically oriented approach is adopted that will assist the practitioner in ensuring successful endodontic treatment.

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 clinically 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 explanations of these advances and their applications. 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 disinfestation, root canal filling, coronal restoration, retreatment, and endodontic surgery. Minimally invasive approaches to complete endodontic treatment, such as vital pulp therapy, and to dental extraction and implant placement, including surgical extrusion, intentional replantation, and tooth transplantation, are also discussed. Minimally Invasive Approaches in Endodontic Practice will be of value for endodontists at all levels of experience.

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The Principles of Endodontics, Third Edition is a contemporary and easy-to-read guide on why and how to carry out safe and effective endodontic treatment. Fully revised and updated, the third edition applies endodontic theory to clinical practice in a pragmatic and user-friendly way. This comprehensive guide covers the core areas of endodontics, from embryology of the dentin-pulp complex to restoration of the endodontically treated tooth. The new edition includes advice on how to solve problems that can occur during treatment and, revised, the ‘How to’ section now provides self-assessment questions with added colour photographs and line drawings, the book reflects the latest available material and equipment, and highlights interesting clinical cases. The Principles of Endodontics, Third Edition is the essential text for undergraduates and a useful reference for recent graduates as well as established clinicians who want to refresh their knowledge to continue their professional development.

This book provides a detailed update on our knowledge of dental pulp and regenerative approaches to therapy. It is divided into three parts. The pulp components are first described, covering pulp cells, extracellular matrix, vascularization and innervation as well as pulp development and aging. The second part is devoted to pulp pathology and includes descriptions of the differences between reactive and reparative dentin, the genetic alterations leading to dentinogenesis imperfecta and dentin dysplasia. Finally, part three discusses the biochemistry of biophysical factors and the effects of bioactive agents on the pulp. This book focuses on pulp repair and regeneration. It includes descriptions of various in vitro and in vivo (animal) experimental approaches, definition of the pulp stem cells with special focus on the stem cell niches, discussion of the regeneration of a pulp-like tissue and new strategies that induce pulp mineralization.

Biomaterials in Endodontics offers an up-to-date overview of endodontic biomaterials and their applications in regenerative medicine and tissue engineering. This book details the key biocompatibility of materials used in endodontics and the benefits and challenges of using these materials, from root canal obturation materials to alloplasts for bone regeneration. The use of endodontic biomaterials offers a unique insight into stem cell and growth factors for bone regeneration. Biomaterials in Endodontics is a useful resource for researchers working in biomedical engineering, regenerative medicine, and materials science with an interest in dentistry and bone regeneration. This book is also a helpful guide for endodontists, dentists, dental scientists, and clinicians choosing biomaterials for use in endodontic procedures. Details the most recent innovations in materials used for endodontic procedures Offers a unique insight into regenerative applications of endodontic biomaterials Appeals to interdisciplinary readership, combining materials science, regenerative medicine, and biomedical engineering approaches

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