

Cervical Spine Surgery Standard And Advanced Tech

This comprehensive reference provides essential clinical information for planning and performing the full spectrum of cervical spine surgeries. Here, in one convenient volume, you'll find guidance in both open and minimally invasive procedures, as well as instruction in relevant anatomy, instrumentation, and underlying principles. An Invaluable Resource Divided into five parts, with basic considerations and includes chapters on anatomy, biomechanics, minimally invasive versus open surgery: choosing the best approach, and image-guided spinal navigation. Part II focuses on arthroplasty techniques and includes chapters on patient selection for single- and multiple-level procedures, as well as chapters devoted to different arthroplasty applications. Part III is devoted to techniques using biomaterials for cervical fusion with chapters on resorbable cervical interbody spacers, resorbable anterior plates, bone morphogenetic protein, bone, PEEK, and carbon fiber. Part IV includes several clinical chapters on different minimally invasive techniques for cervical fusion. The book concludes with Part V on regional and systemic anesthesia. Organized with a consistent format, each technique chapter includes information on indications and contraindications, preoperative assessment and evaluation, preoperative planning, surgical technique, postoperative care, complications and outcomes, and case examples showing the excellent results that can be achieved. To enhance the learning experience, intraoperative video are included. Master the Skills Needed to Stay at the Forefront of the Field! This comprehensive work is a must read for all spine surgeons. It provides the practical information and learning aids to assist you in the treatment of cervical spine disorders.

Authored by a multi-disciplinary team that includes orthopedists and neurosurgeons, Textbook of the Cervical Spine is a practical, clinically focused medical reference for treating patients with cervical spine disorders. From degenerative spine conditions and inflammation, to trauma and infections, it guides today's spine surgeons, orthopaedic surgeons, neurosurgeons and neurologists through the art surgical and fixation techniques, today's emerging technologies, and possible complications. Consult this title on your favorite e-reader, conduct rapid searches, and adjust font size and readability. Accurately handle complex situations with image-guided techniques for the management of cervical spine pathology, as well as helpful information on patient management and decision making. Stay up to date on hot topics with recent case studies that orient you toward important clinical information in the field. Quickly find the information you need with succinct summaries, highlights, key points, tips, and tricks.

This book is aimed at giving an overview of the field of arthroplasty and covers arthroplasty of several regions starting from the cervical spine to the ankle. While the current trend is toward specialization, joint, sometimes having an understanding of the entire subject and cross learning from various subspecialties play a key role in evolving the science. The book is precisely meant to provide a foundation to various types of arthroplasties. It also touches on failures and complications like infections to ensure that the subject is dealt with in a comprehensive manner. Radiology and imaging are an important element for successful outcomes and so does being informed about the newer developments in the field. The chapters on 3D printing and PRP ensure that the all the subjects from the future expected on the horizon are well covered.

Build a solid foundation of knowledge based on the fundamentals and employ step-by-step instruction from Spine Surgery. Edited by Edward C. Benzel, this best-selling medical reference provides the full spectrum of surgical techniques used in spine surgery and delivers the comprehensive, cutting-edge guidance you need to achieve successful outcomes. Online access, thorough updates from international authorities, an abundance of detailed illustrations, and procedural video clips provide everything you need to avoid and manage complex problems. Glean essential, up-to-date information in one comprehensive reference that explores the full spectrum of surgical techniques used in spine surgery. Hone your surgical skills and technique with intraoperative video and outstanding illustrations demonstrating each technique step by step. Grasp and apply the latest knowledge from more than 25 brand-new chapters, as well as extensive revisions of existing chapters to present all of the most up-to-date information available on every aspect of spine surgery including motion preservation technologies, endovascular management, psychosocial interactions, biomechanics, and more. Consult with the best. Renowned neurosurgery authority Edward C. Benzel leads an international team of accomplished neurosurgeons - many new to this edition - who provide dependable guidance and share innovative approaches to surgical techniques and complications management. Equip yourself to address the increasing occurrences of pain among aging and physically active patients. Access the information you need, where you need it on your laptop or mobile device via expertconsult.com, with full-text access, procedural videos, online updates from the experts, downloadable image gallery and links to PubMed.

Neuro Spinal Surgery Operative Techniques: Lateral Mass Fixation in Sub-axial Cervical Spine

Cervical Spine Deformity Surgery

Benzel's Spine Surgery E-Book

Tricks of the Trade

Minimally Invasive Spine Surgery

2nd international symposium

Neuro Spinal Surgery Operative Techniques: Lateral Mass Fixation in Sub-axial Cervical Spine is a concise, illustrated resource, which provides a step by step guide to the successful insertion of a lateral mass screw. The book is split into two sections; the first covers the basic concepts of lateral mass (the bulky, solid parts of the first vertebra of the spine which support the weight of the head). The second section covers surgical techniques, with surgical procedures accompanied by intraoperative photographs and drawings. This book is enhanced by over 100 full colour images and illustrations, making this book a highly useful reference tool for spine surgeons.

The first comprehensive book dedicated solely to the evaluation and treatment of cervical spine deformity! The number of cervical fusion procedures has increased in the U.S. and globally during the last decade, in part due to an aging population and higher incidence of complex cervical problems. Despite advances in the surgical treatment of cervical deformities, few resources detail modern clinical assessment, radiographic evaluation, and surgical approaches.

Cervical Spine Deformity Surgery by world-renowned spine surgeons Christopher Ames, K. Daniel Riew, Justin Smith, and Kuniyoshi Abumi fills a void in the literature. It provides a concise, state-of-the-art resource on current cervical deformity knowledge compiled from the literature and recognized masters in the field. The generously illustrated text begins with a background on the marked health impact of cervical deformity. Opening chapters provide primers on the clinical and radiographic assessment of patients, malalignment and disability scores, and the physical exam. Subsequent chapters detail surgical planning and approaches for a full spectrum of cervical spine conditions, such as semi-rigid and rigid deformities, sagittal deformities, distal junctional kyphosis, congenital cervical deformity, and hemivertebra. Key Features Insightful technical nuances and pearls on managing surgical, neurological, and medical complications associated with cervical procedures, as well as risk stratification and patient frailty Diverse osteotomies including low grade, uncovertebral joint (anterior view), cervical pedicle subtraction, cervical opening wedge, upper thoracic, C1-2 joint, and cervical pedicle screw fixation Focused discussion on continuing efforts to create a clinically meaningful comprehensive cervical osteotomy classification system Neurosurgical and orthopaedic residents and practicing spine surgeons who treat patients with cervical deformities will greatly benefit from consulting this comprehensive and unique resource. This book includes complimentary access to a digital copy on <https://medone.thieme.com>.

Derived from Sam W. Wiesel and Todd J. Albert's four-volume **Operative Techniques in Orthopaedic Surgery**, this single-volume resource contains a comprehensive, authoritative review of operative techniques in spine surgery. In one convenient place, you'll find the entire Spine section, as well as relevant chapters from the Oncology and Pediatrics sections of **Operative Techniques in Orthopaedic Surgery**. Superb full-color illustrations and step-by-step explanations help you master surgical techniques, select the best procedure, avoid complications, and anticipate outcomes. Written by global experts from leading institutions, **Operative Techniques in Spine Surgery, Third Edition**, clearly demonstrates how to perform the techniques, making this an essential daily resource for residents, fellows, and practitioners.

Cervical Laminoplasty

Endoscopic Spine Surgery and Instrumentation

Cervical Spine

Controversies in Spine Surgery

Current Trends and Challenges

This book has become necessary as a consequence of the rapid expansion of the surgical procedures and implants available for spinal surgery within the "AO Group". We have not attempted to write an in-depth book on spinal surgery, but one which will help the surgeon in the use of AO concepts and implants. We consider the practical courses held all over the world essential for the teaching of sound techniques so that technical complications and poor results can be avoided for both the surgeon and, in particular the patient. This book is a practical manual and an outline of what is taught in the courses. It is intended to help the young spinal surgeon to understand the correct use of AO implants. The indications given will aid the correct use of each procedure. It must be strongly emphasized that surgery of the spine is technically demanding. The techniques described in this book should only be undertaken by surgeons who are trained and experienced in spinal surgery. Certain techniques, in particular pedicle screw fixation and cages, have not yet been fully approved by the FDA in the United States. However, throughout the rest of the world, the use of pedicle screws has become a standard technique for the spine surgeon, since it has been shown to improve fixation techniques and allow segmental correction of the spine. The use of cages has become more and more popular, specifically as a tool of minimally invasive spinal surgery.

The second congress of the Pacific Asian Society of Minimally Invasive Spine Surgery (PASMIS) held in Phuket, Thailand, August 5-6, 2002, was highly successful. Dr. Akira Dezawa, the president, had worked hard in organizing the congress, which was well attended. All scientific papers presented were of the highest standard and were worthy of publication in book form. This scientific meeting brought to light the practice of this modern surgical technique as it is being performed by spine surgeons in the Asia-Pacific region. Dr. Dezawa has made a great effort to collect the papers from the congress, and to have them edited and published as a text that covers all aspects of the minimally invasive spine surgical approach. Minimally invasive spinal surgery will be a highlight of operative approaches in the twenty-first century and already has been popularized worldwide. This procedure will provide surgical options that address several pathological conditions in the spinal column without producing the types of morbidity commonly seen in open surgical procedures. The contents of this book provide highly relevant and detailed information. I certainly believe that it will be a great benefit to all orthopedic surgeons who are interested in performing minimally invasive spine surgery. Charoen Chotigavanich, M.D. Chairman, Spinal Section The Royal College of Orthopedic Surgeons of Thailand V Preface Recent decades have been characterized by revolutionary changes in spinal surgery. Concurrent progress in implant technology and functional endoscopes and the improvement of less invasive surgical techniques has opened a new dimension for spine surgery.

Percutaneous lumbar discectomy is a new surgical method for treating lumbar disc diseases. The goal of the procedure is decompression of the spinal nerve root by percutaneous removal of the nucleus pulposus under local anesthesia. Probably 20 % of all patients requiring lumbar disc surgery can be successfully treated by this method. During the past two years, percutaneous discectomy has spread rapidly, and it is now performed in most clinical departments engaged in spinal surgery. The first International Symposium on Percutaneous Lumbar Discectomy, held in Berlin in August 1988, covered all current procedures known as "percutaneous discectomy" and the entire range of percutaneous techniques, both clinical and experimental. Its publication is important because of the recency of this new surgical procedure, the outstanding experience of the speakers - including

the Japanese, American, and European "pioneers" of the technique - and last but not least the gaps in the knowledge of physicians concerning this topic. This procedure opens up new perspectives in the surgical treatment of degenerative diseases of the lumbar spine.

The second edition of Synopsis of Spine Surgery uses a succinct, easily accessible outline format to present the latest diagnostic and management techniques for a range of spine problems. The book opens with review of general principles, including anatomy, surgical approaches, the physical examination, imaging and diagnostic testing, biomechanics of the spine and instrumentation, and the physiology of bone grafting. In the chapters that follow, the authors share their clinical expertise on the management of degenerative spinal conditions, deformities, and trauma, as well as on special topics such as tumors, infections, rheumatoid arthritis, seronegative spondyloarthropathies, and pediatric spine disorders. Features: Succinct outline format speeds reader through review of the goals of treatment, evaluation, classification of injuries, diagnosis, prognosis, indications, surgical treatments, and nonoperative treatment options, including pharmacologic intervention Precise line drawings aid comprehension of surgical approaches and techniques New chapters cover biological implants and motion sparing devices Annotated bibliography provides reader with key references for further study Handy portable size is ideal for busy physicians on the move Synopsis of Spine Surgery will enable orthopedic surgeons, spine surgeons, neurosurgeons, physiatrists, pain management specialists, and trainees, residents, and fellows in these specialties to optimize patient care. With its concise, easy-to-read format, the book is ideal for residents preparing for their annual in-service examination. It will also help medical students prepare for spine surgery rotations.

Spinal Cord Monitoring

The Cervical Spine Surgery Atlas

Techniques, Complication Avoidance, and Management

Anesthesia for Spine Surgery

Operative Techniques in Spine Surgery

This book covers the content of European postgraduate spine surgery courses, using a case-based approach. It describes a stepwise solution to a real-world clinical problem and compares this with the best available evidence. It then provides suggestions on how to bridge the gap (if there is one) between standard of care and evidence-based medicine. Spine Surgery: A Case-Based Approach is aimed at postgraduate students of spine surgery (both trainee neurosurgeons and trainee orthopedic surgeons), and is also of interest to medical students.

Health systems should function in such a way that the amount of inappropriate care is minimized, while at the same time stinting as little as possible on appropriate and necessary care. The ability to determine and identify which care is overused and which is underused is essential to this functioning. To this end, the "RAND/UCLA Appropriateness Method" was developed in the 1980s. It has been further developed and refined in North America and, increasingly, in Europe. The rationale behind the method is that randomized clinical trials--the "gold standard" for evidence-based medicine--are generally either not available or cannot provide evidence at a level of detail sufficient to apply to the wide range of patients seen in everyday clinical practice. Although robust scientific evidence about the benefits of many procedures is lacking, physicians must nonetheless make decisions every day about when to use them. Consequently, a method was developed that combined the best available scientific evidence with the collective judgment of experts to yield a statement regarding the appropriateness of performing a procedure at the level of patient-specific symptoms, medical history, and test results. This manual presents step-by-step guidelines for conceptualising, designing, and carrying out a study of the appropriateness of medical or surgical procedures (for either diagnosis or treatment) using the RAND/UCLA Appropriateness Method. The manual distills the experience of many researchers in North America and Europe and presents current (as of the year 2000) thinking on the subject. Although the manual is self-contained and complete, the authors do not recommend that those unfamiliar with the RAND/UCLA Appropriateness Method independently conduct an appropriateness study; instead, they suggest "seeing one" before "doing one." To this end, contact information is provided to assist potential users of the method.

This comprehensive, up-to-date textbook of modern cervical spine surgery describes the standard and advanced techniques recommended by the Cervical Spine Research Society – European Section (CSRS-E) with a view to enabling both young and experienced surgeons to further develop their skills and improve their surgical outcomes. Success in cervical spine surgery depends on the surgeon's awareness of the main challenges posed by distinct cervical spine diseases, theoretical understanding of treatment concepts, and knowledge of technical options and the related potential for complications. It is the surgeon who has to merge theory and practice to achieve the desired outcome, in each case appraising the details of surgical anatomy and weighing the challenges and complications associated with a surgical technique against the skills that he or she possesses. This excellently illustrated book, written by key opinion makers from the CSRS-E with affiliated surgeons as co-authors, presents the full range of approaches and techniques and clearly identifies indications, precautions, and pitfalls. It will be a superb technical reference for all cervical spine surgeons, whether orthopaedic surgeons or neurosurgeons.

Prepared by the Cervical Spine Research Society, this comprehensive surgical atlas demonstrates the full range of operative techniques for treating cervical spine disorders. Internationally renowned experts provide thoroughly illustrated step-by-step instructions on patient preparation, approaches to the cervical spine, and all current decompression, graft, fixation, and stereotactic techniques. The consistent chapter organization allows easy access to information. Chapters on approaches cover limits of exposure; anatomy; dangers; perioperative considerations; operating room setup; instruments; positioning; skin incisions; deep dissection; closure; and postoperative management. Chapters on techniques cover indications/contraindications; benefits/limitations; recommended approach; perioperative considerations; operating room setup; instruments; biomechanical considerations; technique; and postoperative management.

Spine Surgery

Atlas of Cervical Spine Surgery

AO ASIF Principles in Spine Surgery

Minimally Invasive Spine Surgery Techniques

State of the Art for Minimally Invasive Spine Surgery

Master spine surgeons Alexander R. Vaccaro, Richard G. Fessler, and a cadre of esteemed co-editors have compiled the most comprehensive textbook to date detailing minimally invasive spine (MIS) versus open spine surgery techniques. Controversies in Spine Surgery, MIS versus OPEN: Best Evidence Recommendations features debates by renowned experts on one of the most provocative topics in spine surgery. Twenty-four chapters systematically organized into four sections – degenerative, trauma, tumor, and other issues, cover procedures and underlying pathologies, backed by a large, diverse body of literature. MIS and open approaches are thoroughly compared and contrasted in each chapter. Evidence is presented and analyzed in an objective manner with 'opposing sides' presenting differing opinions and techniques, resulting in a synchronous collection of pros and cons. Every chapter is masterfully summed up by the book's editors – each of whom have varying stances on the topics at hand. This unique 'duel' and 'duet' discussion enables readers to assimilate information, benefit from the balanced harmony between divergent opinions, and reach their own conclusions. Key Highlights Comparative risks, benefits, complications, and outcomes for a full spectrum of lumbar, thoracic and cervical procedures MIS versus open approaches for lumbar stenosis, synovial cysts, lumbar adjacent segment degeneration, degenerative scoliosis, flatback syndrome, thoracic disc herniation, and dural tears Tumor resection and stabilization, quality of life issues, and potential advantages and risks of MIS techniques Key differences in MIS versus open operations such as radiation exposure and costs Analysis of 3-D navigational imaging to improve outcomes and reduce radiation exposure and operating time This book is a tremendous, evidence-based tool to guide spine surgeons as they make important decisions on selecting the most optimal spine surgery techniques. It is a must-have resource for all resident and veteran orthopaedic surgeons and neurosurgeons who specialize in treating patients with spine conditions. Alexander R. Vaccaro, MD, PhD, FACS, MBA, is Richard H. Rothman Professor and Chairman, Department of Orthopaedic Surgery, and Professor of Neurosurgery, Thomas Jefferson University and Hospitals; and President, The Rothman Institute, Philadelphia, Pennsylvania, USA. Richard G. Fessler, MD, PhD, is Professor, Department of Neurosurgery, Rush University Medical Center, Chicago, Illinois, USA. Faheem A. Sandhu, MD, PhD, is Professor of Neurosurgery, Director of Spine Surgery, and Co-Director, Center for Minimally Invasive Spine Surgery, Department of Neurosurgery, MedStar Georgetown University Hospital, Washington, DC, USA. Jean-Marc Voyadzis, MD, is Co-Director, Center for Minimally Invasive Spine Surgery and Associate Professor of Neurosurgery, MedStar Georgetown University Hospital, Washington, DC, USA. Jason C. Eck, DO, MS, is an Orthopaedic Spine Surgeon, Center for Sports Medicine and Orthopedics, Chattanooga, Tennessee, USA. Christopher K. Kepler, MD, MBA, is an Associate Professor and Orthopaedic Spine Surgeon, Department of Orthopaedic Surgery, Thomas Jefferson University and Hospitals, and The Rothman Institute, Philadelphia, Pennsylvania, USA. An award-winning international medical and scientific publisher, Thieme has demonstrated its commitment to the highest standard of quality in the state-of-the-art content and presentation of all its products. Founded in 1886, the Thieme name has become synonymous with high quality and excellence in online and print publishing.

With the time available to surgeons-in-training ever dwindling, there is great emphasis placed on practical learning tools. Mirroring his earlier book on practical procedures in trauma surgery, Prof Giannoudis has produced a reference in more elective techniques. In most medical schools, most emphasis is placed on orthopaedic trauma surgery, with elective techniques often delayed until much later in a surgeon's training.

Minimally Invasive Spine Surgery combines up-to-date research on surgical techniques with high-definition surgical video and concise algorithmic evidence. Each of its sixteen chapters begins with a brief summary followed by imaging indications, instrumentation, a step-by-step surgical technique (and video guide), as well as the potential complications and adverse outcomes that may develop. Techniques discussed in the text include: Posterior Cervical Foraminotomy; Percutaneous Posterior Pedicle Screw Placement; Lumbar Discectomy; Transforaminal Lumbar Interbody Fusion (TLIF); Lateral Lumbar Interbody Fusion (LLIF). Also included is a discussion on the types of implants and instrumentation available today and the potential advantages they offer, making Minimally Invasive Spine Surgery an

essential and relevant book for orthopaedic and neurosurgeons. Key Points Authored by experts from Rush University Medical Centre and Thomas Jefferson University Hospital in the United States Includes DVD to enhance clinical instruction 273 full colour illustrations A comprehensive guide to anesthesia specifically for spine surgery, explaining procedures from the point of view of both anesthesiologists and surgeons.

Complications of Spine Surgery

Textbook of the Cervical Spine E-Book

Practical Procedures in Elective Orthopedic Surgery

Endoscopic Spine Surgery

The Rand/UCLA Appropriateness Method User's Manual

Endoscopic technology has advanced to the point where practitioners can now access, visualize, and treat spine pathologies previously only accessible through open surgical approaches. Endoscopic Spine Surgery 2nd Edition provides a comprehensive background on endoscopic spine surgery and covers an unparalleled number of minimally invasive spine procedures that have revolutionized the spine treatment paradigm. Readers will greatly benefit from many years of expertise and wisdom shared by master spine surgeons Daniel Kim, Gun Choi, Sang-Ho Lee, and Richard Fessler, and their expert contributors. Due to the narrow endoscopic view, subtle microanatomical differences in the lumbar, thoracic, and cervical regions are not always easy to visually discern. To address this challenge, the book contains detailed procedural descriptions and images mirroring endoscopic views spine surgeons encounter in the OR. Organized anatomically, 53 chapters guide readers systematically through lumbar, thoracic, cervical, and craniocervical junction procedures for pathologies ranging from low back pain and deformities to tumors, lesions, infections, and trauma. Key Features More than 1000 high quality images including color procedural photographs and medical illustrations provide in-depth visual understanding. Spinal pathologies and procedures delineated in 75 videos accessible via the Media Center - from case studies to step-by-step technique tutorials. Covers the full spectrum of spine endoscopy including percutaneous approaches, microdiscectomy, laminectomy, discectomy foraminotomy, hemilaminectomy, thoracic decompressions, fusion, fixation, and thoracoscopic procedures. The use of state-of-the-art technology such as ultrasonic bone dissectors, endoscopic radiofrequency denervation, the video telescope operating monitor (VITOM), minimally invasive tubular retractors, and 3D stereo-tubular endoscopic systems. Neurosurgical and orthopaedic residents, spine fellows, and seasoned spine surgeons will all greatly benefit from the significant knowledge and insights revealed in this remarkable multimedia resource. This book may also be of interest to neurosurgical and orthopaedic nurses, physical therapists, chiropractors, and medical device professionals.

Minimally invasive spinal surgery has made tremendous strides in the past decade, with advances in instrumentation and techniques rapidly changing the scope of these procedures. Highlighted by nearly 650 high-quality images, this is the first text to comprehensively review the critical aspects and developments in the field. It features in-depth guidelines and approaches for performing cervical, thoracic, and lumbar spine surgery; percutaneous procedures; and image-guided and robotic surgery. You will also find key discussions of minimally invasive interbody fusion, thoracic discectomy, trauma stabilization, lumbar decompression, tumor resection, and more. With contributions from leading surgeons throughout the country, this text provides a solid foundation in minimally invasive spinal techniques. For all neurosurgeons, orthopedic surgeons, and spinal surgeons, it is both a useful tool and an educational resource for integrating these operative methods into practice.

The success of any spinal operation depends on good definition of the indications, consideration of the contraindications, technical and organizational factors, good operating technique and correct preoperative preparation and positioning of the patient. These points are presented in this book as clearly as possible and are illustrated with detailed high quality artwork.

The increased complexity of spinal surgical procedures in recent years has required more sophisticated anesthetic management of patients undergoing these procedures. Spine surgery anesthesia is now recognized as a distinct sub-specialty, increasingly undertaken by general anesthesiologists as well as neuroanesthesiologists. Anesthesia for Spine Surgery describes the anesthetic management and surgical procedures at every vertebral level in both adult and pediatric patients. The most important related considerations are covered, including: • Postoperative pain management • One lung ventilation during anterior thoracic spine surgery • Intraoperative neuromonitoring • Fluid management Additional chapters review the radiological features of normal and abnormal spines, common complications of spine surgery and ASA closed claims relating to spine surgery anesthesia. Written by highly experienced neuroanesthesiologists and spine surgeons, Anesthesia for Spine Surgery is essential reading for trainee and practising anesthesiologists, neuroanesthesiologists and spine surgeons.

Advances in Spinal Stabilization

Percutaneous Lumbar Discectomy

Cervical Spine Surgery

Techniques, Complication Avoidance, and Management (Expert Consult - Online)

A Case-Based Approach

The field of spine surgery is in a state of flux, with minimally invasive and open surgical procedures vying for dominance. A new volume in the Minimally Invasive Orthopaedic Surgery series, Minimally Invasive Spine Surgery weighs the pros and cons of today's open versus minimally invasive techniques, allowing you to choose the approaches that will best meet your patients' needs. In each chapter, accomplished experts describe the advantages, indications, setup, technical aspects, and problem areas associated with a given minimally invasive procedure, including critiques from surgeons who favor a standard open approach – to give you a balanced, objective foundation for surgical decision making.

Keep up-to-date in this fast moving field Dramatic changes in spinal stabilization have taken place in the last years and the pace of change continues to accelerate. This volume is an excellent mirror of the evolution of spinal stabilization. It brings together the latest and most comprehensive reviews in minimally-invasive and novel surgical approaches and spinal stabilization techniques. Highlights in new biomaterials including radiolucent, bioresorbable, and standard titanium are discussed by experts. Biological advances including the use of bone morphogenetic protein in anterior lumbar interbody fusion as well as computer-assisted image-guided surgical techniques are demonstrated. The section on instrumentation and technique represents the most up-to-date advances in surgical technique and management of spinal disorders. Illustrations included in each chapter document these excellent papers. Because it is a must for all surgeons performing spinal surgery to keep up-to-date in this fast moving field this book is indispensable reading for them. Neurosurgeons and orthopedic surgeons will find a wealth of information in this volume on the developments in surgical approaches, biomaterials and implants, and biological innovations.

Atlas of Cervical Spine Surgery features the expertise of three seasoned spine specialists who can help users minimize post-operative complications. Page after page, readers will find step-by-step illustrated guidance on standard techniques as well as today's most advanced cervical spine procedures used extensively by the authors with great success. It features detailed discussion of the hottest topics in the field, including anterior cervical plasty • transoral resection of the odontoid • posterior C1-C2 techniques • posterior lateral mass fixation • and others. Covers conventional techniques such as posterior wiring • laminectomy • and keyhole foraminotomies. Presents vital information on unusual circumstances physicians may encounter when treating both the posterior and anterior cervical spine. Features step-by-step descriptions of specific surgical procedures ranging from the transoral approach to posterior cervicothoracic fusion. Includes surgical pearls that make it easy to understand and perform each procedure. Discusses common pitfalls that help readers avoid complications and costly mistakes. Uses over 400 easy-to-follow illustrations that illuminate each procedure and display the appropriate instrument used for a given technique. Provides a consistent chapter organization that puts all the information readers need right at their fingertips! And so much more!

This book includes operative videos and teaches the reader how to perform all currently available minimally invasive spine surgery (MISS) techniques. Each chapter covers a MISS procedure and includes an introduction, indications and contraindications, surgical technique, pitfalls and pearls, discussion, conclusion, references, videos and figures. Minimally Invasive Spine Surgery Techniques is aimed at spine surgeons who are interested in learning or improving their MISS skills.

Advanced Techniques and Controversies

Minimally Invasive and Open Surgery

The Management of Disorders of the Child's Cervical Spine

Manual of Spine Surgery

Cervical Spine Research Society - Europe Instructional Surgical Atlas

Cervical laminoplasty for the treatment of ossification of the posterior longitudinal ligament was developed and refined in Japan during the 1970s. Since that time, various cervical laminoplasty techniques have been further analyzed and modified, and have proven to be clinically successful. Until now cervical laminoplasty has been practiced primarily in Japan, and surgeons outside Japan had only limited access to the detailed English literature needed to make full use of the procedures. This book fills that gap in English information and provides a detailed, up-to-date guide to performing safe and effective cervical laminoplasty. Drawing on the latest knowledge from Japan, the book covers the history of cervical laminoplasty, surgical anatomy, basic procedures, modified procedures, possible complications, and perspectives on the future of expansive laminoplasty. This volume by leaders in the field is an excellent guide for all surgeons interested in laminoplasty.

Comprehensive yet practical, this book is the first of its kind to focus exclusively on both major and minor conditions affecting the pediatric cervical spine. Written by eminent orthopedic and spinal surgeons, it provides a systematic approach based on traditional categories: anatomy, pathology, imaging, and both surgical and non-surgical treatment strategies. Utilizing the most up-to-date evidence, the subject is approached in three main sections. The basic science of the pediatric cervical spine – anatomy, biomechanics, imaging and diagnostic techniques – is covered in part I. The clinical aspects of pediatric cervical spine disorders are discussed in part II, including trauma, inflammatory conditions, infections, tumors, congenital anomalies and others.

The medical and surgical treatment of these disorders comprises part III, presenting conservative techniques such as immobilization and surgical techniques such as arthrodesis.

Complications and other related pediatric cervical conditions are also covered in this last section. Written by an international panel of experts and skillfully edited by leaders in the field, The Management of Children's Cervical Spine Disorders is a unique and definitive resource for pediatric orthopedic spine surgeons, neurologists and all medical professionals treating these delicate conditions.

The field of spine surgery is in a state of flux, with minimally invasive and open surgical procedures vying for dominance. A new volume in the Minimally Invasive Orthopaedic Surgery series, Minimally Invasive Spine Surgery weighs the pros and cons of today's open versus minimally invasive techniques, allowing you to choose the approaches that will best meet your

patients' needs. In each chapter, accomplished experts describe the advantages, indications, setup, technical aspects, and problem areas associated with a given minimally invasive procedure, including critiques from surgeons who favor a standard open approach - to give you a balanced, objective foundation for surgical decision making. Key Features Seven comprehensive sections explore the fundamentals of minimally invasive spine surgery; minimally invasive procedures of the cervical, thoracic, and lumbar spine; minimally invasive surgery of the lumbosacral junction and sacroiliac region; and complications of minimally invasive lumbar spine surgeries. Authoritative perspectives from leaders in the field assure you of current, accurate information. Detailed, step-by-step guidance helps you perform each procedure successfully and achieve optimal outcomes. Clinical photographs, radiographs, and detailed line drawings provide visual support to key elements of each procedure. Your book purchase includes a complimentary download of the enhanced eBook for iOS, Android, PC & Mac. Take advantage of these practical features that will improve your eBook experience: The ability to download the eBook on multiple devices at one time -- providing a seamless reading experience online or offline Powerful search tools and smart navigation cross-links that allow you to search within this book, or across your entire library of VitalSource eBooks Multiple viewing options that enable you to scale images and text to any size without losing page clarity as well as responsive design The ability to highlight text and add notes with one click

This volume of Advances and Technical Standards in Neurosurgery is devoted entirely to the spine. Like other volumes in the series, it presents important recent progress in the field and offers detailed descriptions of standard procedures to assist young neurosurgeons. Among the advances considered are approaches to spinal navigation, including intraoperative imaging based navigation, and concepts of spinal robotics. The value of sagittal balance as a parameter for the neurosurgeon is examined, and a novel surgical approach to longitudinal pathologies within the spinal canal is presented. Developments in surgery for kyphosis are also discussed, with a focus on pedicle subtraction osteotomy. The technical standards section critically reviews the latest evidence regarding cervical disc arthroplasty and pedicle-based non-fusion stabilization devices. The book concludes by discussing the treatment of craniovertebral junction instability as a result of juvenile chronic arthritis.

Cervical Spine Surgery: Standard and Advanced Techniques

Upper Extremity and Spine

Controversies in Spine Surgery, MIS versus OPEN

Best Evidence Recommendations

Motion Preservation Surgery of the Spine

Written and edited by world-renowned experts in the field, Benzel's Spine Surgery: Techniques, Complication Avoidance and Management, 5th Edition, provides expert, step-by-step guidance on the evaluation and management of disorders of the spine. This definitive, two-volume work explores the full spectrum of techniques used in spine surgery, giving you the tools you need to hone your skills and increase your knowledge in this challenging area. Clearly organized and extensively revised throughout, it features contributions from both neurosurgeons and orthopaedic surgeons to present a truly comprehensive approach to spine disease. Offers a thorough overview of the effective management of patients with spinal disorders, including fundamental principles, biomechanics, applied anatomy, instrumentation, pathophysiology of spinal disorders, surgical techniques, motion preservation strategies, non-surgical management, and complication avoidance and management, as well as controversies. Focuses on both pathophysiology and surgical treatment of spine disease, with an increased emphasis on minimally invasive surgery. Contains new features such as key points boxes at the beginning of chapters and algorithms to help streamline the decision making process. Covers today's hot topics in spine surgery, such as health economics, artificial intelligence, predictive analytics, new less invasive techniques including endoscopic spine surgery, and the future of spine surgery.

Provides expert coverage of key topics including biomechanics of motion preservation techniques, spinal injuries in sports, biologics in spine fusion surgery, anterior sub-axial cervical fixation and fusion techniques, complex lumbosacropelvic fixation techniques, and many more. Features more than 1,500 high-quality illustrations, as well as new procedural videos on en bloc spondylectomy, minimally invasive endoscopic posterior cervical foraminotomy, cervical total disc replacement, minimally invasive lumbar decompression of stenosis, and more.

This book details the current status of cervical MISS for expert surgeons, young surgeons or clinicians, and residents and fellows with little or no experience on this field of surgery. Because of the involvement of different and highly trained specialists from all over the world, the aim of this book is to satisfy the requirements for knowing the most advanced surgical techniques and their application. Also included are the indications and surgical techniques involving an open standard approach, giving a most exhaustive knowledge of the cervical spine surgery. Due to the difficulty of finding books with both minimal invasive cervical spine surgery and more conventional standard "open" surgery, the benefit of this book is to permit the surgeons and residents and medical doctors, to have a more complete and immediate knowledge of the topics. Due to the scientific multidisciplinary nature of the MISS, several professionals such as orthopedic surgeons, neurosurgeons, radiologists, anesthesiologists and pain management specialists, have been involved in order to create a book in which all the aspects of MISS have been treated. Written by internationally recognized experts, this book is a comprehensive, practical guide to prevention, recognition, and management of complications in spine surgery. Sections cover the cervical spine and the thoracolumbar/lumbosacral spine and discuss the full range of complications that may be encountered, including those associated with the newest technologies, procedures, and instrumentation. Each chapter focuses on a specific type of problem and presents "how-to" strategies for avoiding and managing the problem in specific surgical procedures. Of special note are the detailed discussions of complications related to instrumentation. Each chapter includes extensive, up-to-date references. More than 150 illustrations complement the text.

New motion-preserving devices are revolutionizing spine surgery...but the learning curve for these operations is steep, and great attention must be given to patient and device selection and the perfect execution of each procedure. Only one reference spells out exactly how to perform these new techniques...and its peerless author team, comprised of key investigators involved in the devices' actual clinical trials, is uniquely qualified to help you get the best results! These global leaders in this area discuss the advantages and disadvantages of the full range of non-fusion technologies...and present the step-by-step, richly illustrated operative guidance you need to achieve optimal outcomes! Select the best device and approach for each patient! * cervical total disc arthroplasty * lumbar total disc arthroplasty * lumbar partial disc replacement: nucleus replacement * lumbar posterior dynamic stabilization: pedicle screw based * lumbar

posterior dynamic stabilization: interspinous based * lumbar facet replacement Produce optimal outcomes with detailed advice on... * advantages and disadvantages of each option * indications and contraindications * patient selection * interpretation of imaging studies * surgical anatomy and biomechanics * surgical techniques * tips and pearls See how to perform each technique, thanks to step-by-step, full-color illustrations

Treatment and Prevention

Arthroplasty

Advances and Technical Standards in Neurosurgery

Synopsis of Spine Surgery

50 Landmark Papers Every Spine Surgeon Should Know

There has been an exponential increase in the volume and quality of published research relating to spine care over the last several decades. Among thousands of articles, a small fraction has been shown to be truly "game changing," forcing the entire field to pause and take notice. These landmark studies may describe a new procedure or surgical approach, evaluate the relative effects of known treatments or techniques, introduce a new classification system, or provide new insights into natural history or disease prognosis. Such studies form the foundations of spine surgery today. This book will be a useful reference not only to the established spine surgeon, but also to neurosurgery and orthopedic residents, as well as to spine surgery fellows as they continue to fortify their knowledge surrounding spinal disorders. Further, this will no doubt serve as a useful evidence-based resource for trainees studying for professional examinations and perhaps most importantly challenge and inspire clinicians to produce high-quality impactful research.

Drawing on the expertise of world-renowned orthopedic and neurological spine surgeons, Controversies in Spine Surgery: Best Evidence Recommendations compiles, summarizes, and synthesizes the most relevant scientific literature available in the field today. Each succinct, problem-oriented chapter addresses a different controversial issue where there is a lack of consensus about the best possible course of action. The authors provide guidance and objective recommendations for each scenario based on the most relevant data found in the literature to give surgeons the background they need to make fully informed treatment decisions. Features: Concise outline format enables rapid reading for the busy spine surgeon Invaluable synopses of highly practical evidence-based literature Detailed coverage of commonly disputed issues, such as how to manage vertebral compression fractures, surgery for axial back pain, minimally invasive lumbar fusion, the use of prophylactic antibiotics in spine surgery, and much more Grading of Best Evidence feature in which the authors rate the viability of the data presented Numerous summary tables throughout the text emphasize the main conclusions of published studies Pearls highlight important points in each chapter This cutting-edge clinical reference will help every resident, fellow, and spine surgeon in orthopaedic surgery and neurosurgery streamline their medical decision making process and improve their patient care. This is exactly the book one should have ready access to.--American Journal of Neuroradiology All providers who care for patients with spinal problems should consider using this book to help with decision making for their patients on an everyday basis.--Journal of Neurosurgery

Praise for this book: [Four stars] This book is required reading for orthopedic and neurosurgical fellows and residents...very highly recommend[ed]...outstanding.--Doody's Review This best-selling book returns in a second edition covering the major procedures in spine surgery and the latest technical innovations in the field. Retaining the comprehensive scope and accessible presentation of the previous edition, the book distills the basic elements of each procedure using concise descriptions and simple line drawings. New sections of the book cover minimally invasive exposure methods, motion-sparing techniques, and the latest fixation techniques. Highlights: Each chapter outlines the essentials of the procedure in just a few pages Consistent presentation throughout the book enhances ease of use Tips, pearls, lessons learned, special considerations, pitfalls, and bailout, rescue, and salvage procedures emphasize critical points to help ensure a safe and effective procedure Nearly 500 illustrations demonstrate key technical points Concise and up-to-date, this book serves as an invaluable quick reference prior to surgery. It is ideal for clinicians and residents in spine surgery, orthopedics, and neurosurgery.

Spine Surgery 2-Vol Set E-Book

A Comprehensive Review

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