

## Atlas Of Endoscopic Spine Surgery 1e

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.

A well written, insightfully organized text of an advanced surgical technique that will assist any spine surgeon looking to learn or perfect this endoscopic procedure.-- --ANS Young Neurosurgeons Newsletter

Endoscopic Spine Procedures combines the vast experience of internationally recognized spine surgery experts and provides detailed coverage of operative techniques for the cervical, thoracic, and lumbar spine. The book begins with an overview of the principles of percutaneous endoscopic spine surgery followed by a detailed discussion of applied anatomy, surgical approaches and techniques, and potential complications for the different spine regions. Each chapter contains concise, step-by-step descriptions of the procedures enhanced by clearly labeled illustrations. Features Bullet-point format enables rapid reference prior to surgery 19 high-resolution videos -- one for every procedure described in the book -- appear on an accompanying MediaCenter web page 694 high-quality illustrations prepare readers for surgery, including radiographs, full-color endoscopic views, detailed drawings, and 3-D surgical views Clinical cases demonstrate how to tell the differences between spine levels and between disease states This concise technical guide is an essential resource for neurosurgeons, orthopedic surgeons, interventional radiologists, or anyone involved in the care of patients with spine disorders.

In this second edition of the classic Atlas of Endoscopic Spine Surgery, Atlas of Minimal Access Spine Surgery provides the authoritative operative reference for both the novice and the experienced spine surgeon. This extensively illustrated new edition stands as a comprehensive thesis on the rapidly evolving field of minimally invasive spine surgery. Greatly expanded over the previous edition, this volume prepares surgeons to effectively meet the increased demand for minimal access spine surgery. With smaller incisions, less pain, shortened hospital stays, substantial savings in health care dollars, and lower morbidity, it is clearly the preferred method for both patient and surgeon. Written by the world's

foremost endoscopic surgeons, this volume provides expert advice, tips, and caveats, plus step-by-step operative guidance to a full range of minimal access spine surgery techniques. Hundreds of photographs and precise illustrations, mostly in color, guide the surgeon through each major step of every procedure, detailing anatomic structure and instrument positioning. To complement this book, two CDs are included with operative video. The Atlas of Minimal Access Spine Surgery explores in detail procedures that have been developed to utilize advancements in fiber optics, versatile spinal implants, and computer image-guided assistance to improve outcomes in the management of spinal disorders. It incorporates procedures such as endoscopic scoliosis correction, micro-endoscopic discectomy, and the latest advances in artificial disc replacement. The authors examine every significant topic: anesthetic considerations, indications and contraindications, instrumentation and surgical systems, complications, outcomes, and more.

This volume, part of the second edition of the classic Neurosurgical Operative Atlas series, presents the latest techniques for managing the full range of spinal and peripheral nerve problems. Each chapter addresses a different surgical procedure, guiding the reader through patient selection, preoperative preparation, anesthetic techniques, patient monitoring, and surgical techniques and outcomes. The authors also discuss common complications and offer tips for how to avoid and manage them. Spine and Peripheral Nerves is ideal for residents to study and for established surgeons seeking a quick refresher in preparation for surgery. Neurosurgeons, orthopedists, and plastic surgeons will benefit from the wealth of information provided in this up-to-date clinical reference. Highlights: Renowned experts in the field share their clinical insights and extensive experience Concise, step-by-step descriptions enable the reader to rapidly review techniques More than 750 illustrations and images demonstrate key concepts Organized by anatomical location to aid quick reference Series description: The American Association of Neurological Surgeons and Thieme have collaborated to produce the second edition of the acclaimed Neurosurgical Operative Atlas series. Edited by leading experts in the field, the series covers the entire spectrum of neurosurgery in five volumes. In addition to Spine and Peripheral Nerves, the series also features: Neuro-Oncology, edited by Behnam Badie Vascular Neurosurgery, edited by R. Loch Macdonald Functional Neurosurgery, edited by Philip Starr, Nicholas M. Barbaro, and Paul Larson Pediatric Neurosurgery, edited by James Tait Goodrich

Over the past decade, minimally invasive techniques have developed rapidly and are widely applied in the management of spine disorders. With the development of enabling technologies, including specifically designed spinal retractor systems, intraoperative imaging and navigation technologies, and real-time neural monitoring, minimally invasive spine surgery (MISS) techniques are safe, effective and reproducible. Indeed, studies have confirmed the clinical and economic advantages of these procedures. Minimally Invasive Spine Surgery

includes detailed discussions of enabling technologies, surgical techniques (including posterior decompression and fusion), approaches to specific diseases and conditions, as well as strategies to manage the unique risks and complications of MISS. Generously illustrated, this will be an essential reference for orthopedic surgeons, neurosurgeons and all health care professionals who treat the spine.

John Regan demonstrates the procedures discussed in the book. Contains footage of operations with narration; reviews indications/contraindications; description of pertinent anatomy; recommendations for operating room set up; and tips about complications.

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.

Originally published in 2006, the second edition of this award-winning neurosurgical atlas is written by a notable cadre of world-renowned spine surgeons. Reflecting the enormous depth and breadth of spine surgery, this volume has been completely updated with current, state-of-the-art surgical methodologies and minimally invasive options. Pathologies include degenerative changes, congenital abnormalities, rheumatic diseases, tumors, and trauma. The authors have divided the book into six consistent sections: occipital-cervical, midcervical spine, cervicothoracic junction, thoracic and thoracolumbar spine, lumbar and lumbosacral spine, and peripheral nerve. Within each section, the opening chapters cover comprehensive discussion of pathology, etiology, and differential diagnosis. Succeeding chapters present step-by-step surgical

techniques encompassing anterior, anterolateral, posterior, and posterolateral approaches, separately and in sequence. Minimally invasive techniques and peripheral nerve procedures, including the brachial plexus, lumbosacral plexus, and individual nerves are covered independently, following the same organization. Key Highlights: Clearly delineated indications, contraindications, advantages, and disadvantages provided for each surgery Operations with same opening and closing technique covered just once, thereby minimizing redundancy Beautifully illustrated with more than 1,000 images Video compendium created by master surgeons provides up-close guidance on a wide array of surgical procedures Ideal for both the busy practitioner seeking review and resident looking for robust study materials This book is an incomparable learning tool for residents, who will likely read it several times during the course of residency. A precisely edited, didactic atlas, neurosurgeons and orthopaedic surgeons will also find it an invaluable resource.

Minimally Invasive Spine Surgery is a beautifully illustrated atlas describing the 18 most widely accepted minimally invasive procedures in spine surgery. Written by leaders in both neurologic and orthopedic spine surgery, this book offers the most up-to-date material and the broadest perspective on the subject.

Procedures range from simple to complex and cover the cervical, thoracic and lumbar regions of the spine.

Minimally invasive procedures are increasingly utilized and are replacing open surgery to reduce scarring and pain, enhance patient recovery, and minimize cost. Minimally Invasive Spine Surgery provides step-by-step guidance, expert instruction, and detailed illustration of current minimally invasive orthopedic spine procedures. With a variety of c

This atlas documents current surgical approaches to the craniocervical junction and the cervical spine, providing step-by-step guidance on procedures and cervical spine stabilization techniques. Opening chapters present essential information on anatomy, depict pathologies with the aid of illustrative cases, describe the role of imaging techniques in patient evaluation, and discuss surgical instrumentation and patient positioning. The different techniques employed in this delicate anatomic region, including transnasal and transoral endoscopic approaches to the craniocervical junction and posterior and anterior approaches to the cervical spine, are then explained and illustrated with a view to providing the surgeon with a clear reference that can be used in the operating room. In addition, practical advice is offered on the treatment of potential complications, postoperative management, and rehabilitation. This book will be of value not only to neurosurgeons but also to orthopedists, ENT surgeons, neurologists, and physiatrists.

Featuring an expanded focus on in-demand endoscopic and minimally invasive spine procedures, *Surgical Anatomy and Techniques to the Spine, 2nd Edition* pairs new anatomic photographs and radiographic images with expertly rendered color illustrations and clear, step-by-step descriptions to help you effectively

perform all of the latest and most effective spine surgery techniques. A multidisciplinary approach makes this medical reference book relevant and informative to all surgeons regardless of their specialty or level of surgical experience with the spine. Proceed with confidence. An atlas-style format featuring clear, concise, step-by-step descriptions of the anatomy and procedures along with clinical hints and pearls, tables, and management algorithms provideing swift answers and trusted guidance. Sharpen your surgical acumen with a deeper understanding of the anatomy of the surgical target and related anatomy. Comprehensive information on cervical, cervical/thoracic, thoracic/lumbar, lumbar spine, lumbar/pelvis, and other surgical locations ensures the best approaches to spine surgery and results. Understand the spine from all angles with multiple-viewpoint, full-color photographs, and illustrations. 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 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. This video atlas covers a broad range of spinal surgical procedures. The volume includes a collection of high quality 3-to-8 minute videos of some of the most critical spine operations performed by internationally renowned expert surgeons. Key features of the book contents include:

- o Downloadable high quality video content with subtitles suitable for viewing on any display (A brief preview of the book content can be viewed at <https://www.youtube.com/watch?v=SxMi4UFj7HA> )
- o Detailed descriptions of surgical indications, preoperative planning, patient positioning, surgical technique, complications, postoperative care and outcomes for each procedure
- o Full color images and illustrations highlighting different key stages of each surgical technique

The video format allows skill development of its intended audience by conveying temporal and spatial details which often go unnoticed in photograph format. This volume will be of immense interest to both the novice and the experienced spinal surgeon as they can benefit from the visual guides presented in the book. It also serves as an ideal teaching tool for spine surgery units in medical schools.

The use of endoscopic orbital surgery is rapidly expanding in modern day rhinology and oculoplastic practice. In the past two decades, endoscopic techniques have been adapted for lacrimal and orbital surgery. Significant advances have been made in endoscopic endonasal and periorbital approaches to the orbital apex and skull base, especially in the last 3 years. There has been no book dedicated to these recent surgical innovations until *Endoscopic Surgery of the Orbit: Anatomy, Pathology, and Management* by Benjamin Bleier, Suzanne Freitag, and Raymond Sacks filled this void. This landmark text and its accompanying videos bring together the global experience of thought leaders and pioneers with multidisciplinary backgrounds. The collective expertise shared throughout 20 chapters codifies the current state of endoscopic orbital surgery and sets the stage for future developments. The opening chapters cover anatomy, physiology, and radiologic aspects pertaining to the orbit, paranasal

sinuses, and surrounding structures. Subsequent chapters detail evaluation and endoscopic management of a full spectrum of pathologies utilizing orbital and optic nerve decompression, reconstruction, transorbital approaches, and anesthetic techniques. Key Features State-of-the-art evidence-based medicine including the pros and cons of different treatment approaches Management of operative complications such as sinusitis and iatrogenic intraorbital injury, and postoperative challenges Pathology-specific topics including congenital and acquired lacrimal obstruction, thyroid-related eye disease, trauma, orbital neoplasms, and skull-base neoplasms with orbital involvement 138 original illustrations help elucidate complex anatomy High definition, narrated surgical videos delineate specific surgical techniques This is a must-have resource for otolaryngologists in rhinologic and general practice and ophthalmologists in general and oculoplastic practice. It will also benefit neurosurgeons and plastic & reconstructive surgeons. The comprehensive text, clinical pearls, and accompanying videos facilitate incorporating these techniques into practice, whether one is a surgical trainee or veteran practitioner.

This book provides a comprehensive and practical guide for the safe and efficient management of patients with intrinsic brain tumors and medically intractable epilepsy. It presents in an easily understandable way the preoperative evaluation of these patients, starting from the clinical interpretation of conventional anatomical MR imaging and analyses the clinical significance of newer MR based imaging techniques such as diffusion and perfusion imaging. It demonstrates with clarity the role of MR spectroscopy and fractional anisotropy and diffusion tensor imaging in the preoperative assessment of these patients and how this data can be incorporated into the surgical planning. This book is aimed at neurosurgeons, neuroradiologists, neurologists, and epileptologists, and may also be of interest to neuropsychologists, neurophysiologists, radiation oncologists, and medical physicists.

This best-selling resource explores the full spectrum of surgical techniques used in spine surgery, and describes how to avoid and manage complex problems. It emphasizes how to achieve successful outcomes and minimize risks. The 2nd Edition delivers more than 25 brand-new chapters, as well as extensive revisions and updates throughout, to reflect all of the latest advances in the field. It also features contributions from an increased number of orthopaedic surgeons to round out the strong coverage provided by the many neurosurgeon contributors. Features contributions from well-known neurosurgeons and orthopaedic surgeons, for well-rounded, authoritative coverage from beginning to end. Offers more than 825 outstanding illustrations that demonstrate how to perform every procedure step by step. Provides more than 25 brand-new chapters, as well as extensive revisions or total rewrites to the majority of existing chapters-to present all of the most up-to-date information available on every aspect of spine surgery. Includes chapters on hot topics such as Nonspinal Pathology Masquerading as Spinal Disease · Bone Void Fillers: Bone and Bone Substitutes · Data

Management · Posterior Lumbar Interbody Fusion · Ankylosing Spondylitis and Related Disorders · Craniocervical Junction Deformities · Pediatric Spinal Deformities · Subsidence and Dynamic Spinal Stabilization · and The Nonoperative Management of Neck and Back Pain. With 267 additional contributing experts.

150 contemporary barbecue dishes, sauces and condiments by award-winning barbecue chef and firefighter David Veljacic.

This book aims to familiarize readers with the overall scope of endoscopic surgeries for the treatment of various types of spinal disease. State of the art techniques for minimally invasive endoscopic procedures to the cervical, thoracic, and lumbar spine are precisely described. The coverage includes cutting-edge endoscopic solutions for spinal canal stenosis or instability and low back pain. All technical aspects are explained in detail, and the text is complemented by many helpful illustrations. A further key feature is the provision of accompanying surgical videos, which will be of value to both novice and experienced surgeons. As a result of recent technological advances, minimally invasive endoscopic procedures are now being used for the treatment of patients with spinal problems in various institutes across the world. It can be anticipated that, in the near future, these procedures will be regarded as mainstream in spine surgery. The authors hope that this book will motivate the reader to participate in this trend, which promises important benefits for patients.

The term “minimally invasive spinal surgery” was coined in early 1990 following publication of the first edition of this text entitled *Arthroscopic Microdiscectomy: Minimal Intervention in Spinal Surgery*, and subsequent establishment of the International Society for Minimal Intervention in Spinal Surgery (ISMIS) under the auspices of the International Society of Orthopaedic Surgery and Traumatology (SICOT) in April 1990. The orthopedic and neurological surgeons who participated in lectures and hands-on workshops both in Philadelphia and abroad have witnessed the evolution of minimally invasive spinal surgery from blind nucleotomy to endoscopic fragmentectomy, decompression of lateral recess stenosis, foraminoplasty, and spinal stabilization. In *Arthroscopic and Endoscopic Spinal Surgery: Text and Atlas, Second Edition*, experts describe and illustrate various techniques and approaches that are currently used in this field. In addition, the ongoing research for the betterment of spine care via minimally invasive approaches is briefly reviewed. I would like to express my sincere appreciation to so many of my colleagues who supported my efforts in the field of minimally invasive spinal surgery throughout the years. Many of them participated in our teaching symposiums and have provided valuable contributions to this text.

Endoscopic spine surgery essentials from expert spine surgeons *Atlas of Full-Endoscopic Spine Surgery* by internationally renowned spine surgeons Christoph Hofstetter, Sebastian Ruetten, Yue Zhou, and Michael Wang provides concise, step-by-step guidance on the latest full endoscopic spine procedures. The book

is targeted at practicing spine surgeons, fellows, and residents currently not trained in endoscopic spine surgery who have the desire to learn and incorporate these techniques into clinical practice. It is also an excellent curriculum resource for cadaveric training courses taught at the national and international level. The book lays a solid foundation with opening chapters on anesthesia, OR setup and endoscopic tools, applied anatomy, basic endoscopic surgical tasks, and preoperative diagnostics. Additional sections include step-by-step descriptions of the full spectrum of cervical, thoracic, and lumbar endoscopic approaches. The last section provides invaluable pearls on overcoming challenges, avoiding pitfalls, and optimizing postoperative care. Key Features Transforaminal endoscopic lumbar and thoracic discectomy approaches Trans-SAP endoscopic approach for foraminal and lateral recess decompression Interlaminar endoscopic lumbar discectomy Cervical/thoracic and lumbar unilateral laminotomy for bilateral decompression Special topics including endoscopic management of challenging cases, endoscopic revision surgery, and management of complications. Neurosurgery residents, fellows, young practicing neurosurgeons, and all healthcare practitioners involved in the care of endoscopic spine surgery patients will gain invaluable insights from this book. A high-yield and comprehensive text-and-video resource for managing commonly encountered spinal conditions Spine surgery has experienced several paradigm shifts during the past few decades, with highly complex techniques introduced at an astoundingly rapid pace. In order for new generations of spine surgeons to stay current and thrive in this innovative era of spine surgery, access to diverse multimedia learning tools is imperative. Video Atlas of Spine Surgery by renowned spine surgeon and educator Howard An and Rush University Medical Center colleagues Philip Louie, Bryce Basques, and Gregory Lopez, is a cutting-edge resource for non-operative and operative management of a diverse spectrum of cervical, thoracic, and lumbar spine conditions. Consisting of 19 chapters, the text is streamlined to facilitate learning the most important steps for each procedure. The book begins with discussion of physical exam maneuvers used to accurately diagnose specific spinal pathologies. Subsequent chapters detail extensive spine surgery techniques for managing degenerative cervical and lumbar conditions. The remaining chapters cover spinal cord, cervical, and thoracolumbar injuries; idiopathic, degenerative, and early-onset scoliosis; kyphosis; spondylolisthesis; spinal infections and inflammatory disorders; and thoracic disc disorders. Key Features Concise, bulleted text and consistent chapter outlines feature epidemiology and prevalence, pathogenesis, clinical presentation, image findings, classification, conservative and surgical management, techniques, postoperative care, and more A myriad of meticulous diagrams and illustrations, spinal imaging and photographs, and 50 high-quality spine surgery videos maximize learning Technical pearls, case examples, and board-style orthopaedic surgery questions at the end of each section optimize comprehension and retention of information This remarkable resource is a must-

have for orthopaedic and neurosurgery residents and fellows, as well as practicing spine surgeons.

Learn state-of-the-art MIS techniques from master spine surgeons! Significant advances have been made in minimally invasive spine (MIS) surgery approaches, techniques, and innovative technologies. By preserving normal anatomic integrity during spine surgery, MIS approaches enable spine surgeons to achieve improved patient outcomes, including faster return to normal active lifestyles and reduced revision rates. Exposing only the small portion of the spine responsible for symptoms via small ports or channels, requires a deep understanding of spinal anatomy and spinal pathophysiology. Building on the widely acclaimed first edition, *An Anatomic Approach to Minimally Invasive Spine Surgery, Second Edition*, provides an expanded foundation of knowledge to master minimally invasive spine surgery. World-renowned spine neurosurgeons Mick Perez-Cruet, Richard Fessler, Michael Wang, and a cadre of highly regarded spine surgery experts provide masterful tutorials on an impressive array of cutting-edge technologies. Organized by seven sections and 51 chapters, the book presents a diverse spectrum of current safe and efficacious MIS procedures and future innovations. Nonsurgical approaches include injection-based spine procedures and stereotactic radiosurgery. Surgical technique chapters discuss MIS anterior, posterior, and lateral approaches to the cervical, thoracic, and lumbar spine, with procedures such as endoscopic microdiscectomy, vertebroplasty and kyphoplasty, percutaneous instrumentation, and robotic spine surgery. Key Features Step-by-step illustrations, including more than 400 depictions by master surgical and anatomic illustrator Anthony Pazos portray the surgeon's-eye-view of anatomy, intraoperative images, and surgical instruments, thereby aiding in the understanding of anatomy and procedures 20 online videos feature real-time operative fluoroscopy, pertinent anatomy, operative set-up, and common cervical, thoracic, and lumbar approaches Discussion of novel MIS techniques reflected in 16 new or expanded chapters, including Robotic Assisted Thoracic Spine Surgery and Stem-Cell Based Intervertebral Disc Restoration There is truly no better clinical reward for spine surgeons than giving patients suffering from debilitating spinal disorders their life back. This quintessential MIS surgery resource will help surgeons and clinicians accomplish that goal.

Includes indications/contraindications, operating room setup, equipment & instrumentation & 5- to 7-minute segments on each surgical technique covered in the book.

The development and refinement of neuroendoscopy has been driven by the persistent desire of neurosurgeons to advance the field and offer less invasive, more efficacious options to patients. This remarkable multimedia book reflects the technological advances achieved in the last two decades in fiber optics, cold light, cameras, and endoscopic instrumentation. Written by an impressive Who's Who of international neurosurgeons, the outstanding text and videos reflect global contributions to neuroendoscopy. Current indications for intracranial and intraventricular endoscopy are described in depth, through detailed chapters, stellar videos, professional animations, and exquisite illustrations. The authors share their clinical expertise on procedures ranging from endoscopic third ventriculostomy to transventricular approach of the fourth ventricle. Cover to cover, this book details the differences, alternatives, advantages, and limitations of the flexible neuroendoscope. This hands-on learning tool will enable neurosurgeons to perform endoscopy of the ventricles and basal cisterns for exploratory purposes and conditions such as hydrocephalus, congenital aqueductal stenosis, tumors, hypothalamic hamartoma, arachnoid cysts, and neurocysticercosis. Additional topics include endoscopic-assisted microvascular decompression and aneurysm surgery, fluorescence, complications, anesthesia, utilization in developing countries, and future trends. Key Features: Comprehensive multimedia reference with online access to 70 superb videos and animations More than 300 meticulously drawn illustrations Beautifully illustrated anatomical chapters that facilitate in-depth understanding of endoscopic anatomy An entire chapter devoted to flexible

neuroendoscopy Indications, preoperative preparation, procedure description, intraoperative complications and their management ("risk and rescue" techniques), expert pearls, postoperative management, and outcomes This volume is a must-have resource for neurosurgery and neurology residents, neurosurgeons, pediatric neurosurgeons, and all physicians involved in the care of patients with intracranial and intraventricular disease. In this second edition of the classic Atlas of Endoscopic Spine Surgery, Atlas of Minimal Access Spine Surgery provides the authoritative operative reference for both the novice and the experienced spine surgeon. This extensively illustrated new edition stands as a comprehensive thesis on the rapidly evolving field of minimally invasive spine surgery. Greatly expanded over the previous edition, this volume prepares surgeons to effectively meet the increased demand for minimal access spine surgery. With smaller incisions, less pain, shortened hospital stays, substantial savings in health care dollars, and lower morbidity, it is clearly the preferred method for both patient and surgeon. Written by the world's foremost endoscopic surgeons, this volume provides expert advice, tips, and caveats, plus step-by-step operative guidance to a full range of minimal access spine surgery techniques. Hundreds of photographs and precise illustrations, mostly in color, guide the surgeon through each major step of every procedure, detailing anatomic structure and instrument positioning. To complement this book, two CDs are included with operative video. The Atlas of Minimal Access Spine Surgery explores in detail procedures that have been developed to utilize advancements in fiber optics, versatile spinal implants, and computer image-guided assistance to improve outcomes in the management of spinal disorders. It incorporates procedures such as endoscopic scoliosis correction, micro-endoscopic discectomy, and the latest advances in artificial disc replacement. The authors examine every significant topic: anesthetic considerations, indications and contraindications, instrumentation and surgical systems, complications, outcomes, and more.

Gain a clear understanding of the entire spectrum of today's rhinology and anterior skull base surgery with Atlas of Endoscopic Sinus and Skull Base Surgery, 2nd Edition. This thoroughly updated title increases your knowledge and skill regarding both basic or advanced procedures, taking you step by step through endoscopic approaches to chronic sinus disease, nasal polyps, pituitary tumors, cerebrospinal fluid leaks, sinonasal tumors, and more. Covers the full range of modern rhinology and anterior skull base surgery, from septoplasty and sphenoidectomy to extended frontal sinus procedures, endoscopic craniofacial resections and complex skull base reconstructions. Clearly conveys the anatomy and detailed steps of each procedure with concise, step-by-step instructions; visual guidance features high-definition, intraoperative endoscopic photos paired with detailed, labeled anatomic illustrations. Includes new content on anterior skull base surgery that reflect new developments in the field. Helps you provide optimal patient care before, during, and after surgery with detailed information on relevant anatomy and surgical indications, instrumentation, potential pitfalls, and post-operative considerations.

Edited by Sudhir Diwan, a former Director of Pain Medicine fellowship program at Ivy League Weill Cornell Medical College, and Timothy R. Deer, an internationally renowned expert in neuromodulation and minimally invasive spinal procedures, this atlas covers advanced procedures that normal residency and fellowship programs may not cover. It consolidates information pain fellows usually amass by traveling throughout the country to various specialized weekend courses. Advanced Procedures for Interventional Pain Management: A Step-by-Step Atlas is for physicians that know the fundamentals of pain medicine and want to push their knowledge further. Through easy-to-digest bullet points, extensive diagrams, hundreds of figures, and expanded legends beneath each illustration, this compendium covers techniques such as fluoroscopic guidance and radiation safety, endoscopic transforaminal discectomy, endoscopic direct-percutaneous discectomy, transforaminal myelogram,

percutaneous facet fusion, percutaneous sacroplasty, vertebral augmentations, percutaneous tumor ablation, percutaneous spinal fusion, minimally invasive spinal decompression (MILD), Interspinous Spacer Placement and advanced neuroaugmentation techniques like high frequency stimulation and DRG stimulation. This book also has a dedicated section on Regenerative Medicine with chapters on platelet rich plasma, stem cell therapy, and intradiscal regenerative therapy. Each chapter has a strict chapter format that includes the indications and contraindications for each procedure, a list of equipment and drugs, a step-by-step illustration-focused how-to, a list of possible post-procedural complications, and bullet-pointed clinical pearls and pitfalls. Within each chapter the authors will also cover the variations of each procedure due to different equipment. This book is ideal for pain medicine fellows, spine surgeons, and interventional pain physicians who want access to the best minds and specialized procedures in a single package.

Minimally Invasive Thoracic Surgery (VATS) presents step-by-step instructions on procedures that yield better patient outcomes and recoveries. Dr. Robert J. McKenna covers major developments in video-assisted thorascopic surgery (VATS)—including lung-volume reduction surgery. Access the fully searchable contents of the book online at [www.expertconsult.com](http://www.expertconsult.com), along with videos demonstrating key minimally invasive thoracic procedures. Get the latest on video-assisted thorascopic surgery (VATS), including lung-volume reduction surgery. Hone your skills in each procedure through step-by-step instructions, along with tips and discussions of complications. Grasp the visual nuances of surgery from nearly 400 intraoperative photographs depicting procedures. Master the full range of minimally invasive procedure through comprehensive coverage that highlights even lesser known techniques. Watch procedures performed by the experts who helped pioneer them on the website.

Endoscopic Spinal Surgery provides a comprehensive, practical and timely review of the minimally invasive endoscopic surgical techniques used to treat conditions of the cervical, thoracic, and lumbar spine. Recent advances in technology, together with improved clinical outcomes, have established percutaneous endoscopic spinal procedures as alternatives to traditional open spinal surgery. This text describes the most effective endoscopic techniques currently available and discusses indications, surgical approaches, complications, and clinical outcomes. An authoritative, international team of contributors provides surgical insight and expert guidance. Provides a definitive 'go to' reference for spinal surgeons, orthopaedic surgeons and neurosurgeons Gives expert guidance on the full range of minimally invasive endoscopic techniques used in the management of spinal disorders, in chapters organized by spinal section Includes general chapters on instrumentation, relevant neuroanatomy, and anesthetic considerations Dedicates a chapter to classification and coding issues

Atlas of Full-Endoscopic Spine Surgery Thieme

Atlas of Neurosurgical Techniques: Brain presents the current information on how to manage diseases and disorders of the brain. Ideal as a reference for review in preparation for surgery, this atlas features succinct discussion of pathology and etiology that helps the reader gain a firm understanding of the underlying disease and conditions. The authors provide step-by-step descriptions of surgical techniques, clearly delineating the indications and contraindications, the goals, the operative preparation and anesthesia, and postoperative management. Common complications of techniques are also emphasized. Over 900 illustrations aid the rapid comprehension of the surgical procedures described in the text. Highlights: Clear descriptions of the surgical management of aneurysms, arteriovenous malformations, occlusive and hemorrhagic vascular diseases, tumors, lesions, pain disorders, trauma, infections, and more Detailed discussion of disease pathology, etiology, and differential diagnosis Concise outlines of indications, contraindications, as well as advantages and disadvantages of each technique illuminate the rationale behind surgical management More than 900 illustrations, including 684 in full-color, demonstrate key concepts Sections on the latest techniques in stereotactic and

minimally invasive surgery This companion volume to Atlas of Neurosurgical Techniques: Spine and Peripheral Nerves is an essential reference for all neurosurgeons and residents seeking the current information on state-of-the-art techniques in brain surgery.

Endoscopic spine surgery essentials from expert spine surgeons Atlas of Full-Endoscopic Spine Surgery by internationally renowned spine surgeons Christoph Hofstetter, Sebastian Ruetten, Yue Zhou, and Michael Wang provides concise, step-by-step guidance on the latest full endoscopic spine procedures. The book is targeted at practicing spine surgeons, fellows, and residents currently not trained in endoscopic spine surgery who have the desire to learn and incorporate these techniques into clinical practice. It is also an excellent curriculum resource for cadaveric training courses taught at the national and international level. The book lays a solid foundation with opening chapters on anesthesia, OR setup and endoscopic tools, applied anatomy, basic endoscopic surgical tasks, and preoperative diagnostics. Additional sections include step-by-step descriptions of the full spectrum of cervical, thoracic, and lumbar endoscopic approaches. The last section provides invaluable pearls on overcoming challenges, avoiding pitfalls, and optimizing postoperative care. Key Features Transforaminal endoscopic lumbar and thoracic discectomy approaches Trans-SAP endoscopic approach for foraminal and lateral recess decompression Interlaminar endoscopic lumbar discectomy Cervical/thoracic and lumbar unilateral laminotomy for bilateral decompression Special topics including endoscopic management of challenging cases, endoscopic revision surgery, and management of complications. Neurosurgery residents, fellows, young practicing neurosurgeons, and all healthcare practitioners involved in the care of endoscopic spine surgery patients will gain invaluable insights from this book. This book includes complimentary access to a digital copy on <https://medone.thieme.com>.

This richly illustrated text/atlas is a complete, definitive guide to surgical procedures for all regions of the spine. Written by leading orthopaedic surgeons and neurosurgeons, the book covers the full range of current techniques and procedures, including microsurgery, endoscopic surgery, and minimally invasive surgery. Coverage includes detailed instructions on positioning, surgical exposures, instrumentation, step-by-step techniques, and prevention and management of complications. The book features 600 meticulous original two-color and full-color drawings by a noted medical illustrator.

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.

A state-of-the-art neurovascular surgery atlas from internationally renowned neurosurgeon R. Loch Macdonald Neurosurgical Operative Atlas: Vascular Neurosurgery, Third Edition, by R. Loch Macdonald and expert contributors, reflects the latest advances in endoscopic, endovascular, microsurgical, and bypass techniques used in the treatment of cerebrovascular disease. The entire atlas has been streamlined and updated with new content, including 38 videos that complement the concise step-by-step guidance in the text. The book begins with five chapters on vascular and microsurgical instrumentation and equipment, clipping versus

coiling, aneurysm surgery techniques, the pterional approach, and minimally invasive approaches. Disease and procedure-specific chapters are organized by three sections: aneurysms and subarachnoid hemorrhage, vascular malformations, and ischemic and other cerebrovascular disease. Every chapter includes salient tips on patient selection and procedural indications, preoperative information and tests, patient positioning, operative nuances, and postoperative complications. Key Highlights Nearly 300 high-quality color illustrations detail impacted anatomy and procedures The latest techniques for treating a full spectrum of aneurysms, such as ophthalmic segment, supraclinoid internal carotid artery, middle and anterior cerebral artery, basilar and posterior cerebral artery, and others Treatment of vascular abnormalities including arteriovenous malformations, superficial and brainstem cavernous malformations, arteriovenous fistulae, Moyamoya disease, and more Neurosurgical residents will benefit from the firsthand knowledge shared by international masters, while veteran neurosurgeons will glean invaluable insights on cutting-edge endovascular techniques to enhance clinical practice.

In the past few years spine surgery has undergone revolutionary changes leading towards minimally invasive techniques. This book is a survey of microsurgical as well as endoscopic surgical techniques for the treatment of a variety of spinal disorders. The structure of the individual chapters includes terminology, history, surgical principles, advantages/disadvantages, indications, surgical technique, complications and hazards as well as results. However all chapters are focused on a very didactic presentation of surgical steps. Thus, the reader will get familiar with a variety of new techniques some of which are already integrated into clinical routine others still being part of ongoing clinical trials and development.

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