Surgical Management Of Acute Spine Injuries

Spinal cord injury related paraplegia changes a person's life in a sudden way. The most important issue for physicians, therapists and caregivers is to manage the complications that arise, and help paraplegic subjects return to a productive integrated life within society. The book Topics in Paraplegia provides modern knowledge in this direction. Addressing hot topics related to paraplegia, ranging from surgical management to research therapies with mesenchymal stem cells, this book could be a valued reference for physiatrists, neurosurgeons, orthopaedic surgeons, neurologists and physical therapists. The book is organized into four sections. The first covers the epidemiology and psychological conditions associated with paraplegia, the second discusses surgical management and common rehabilitation interventions; the third medical complications and special musculoskeletal issues, while the last outlines current research in animals and humans.

A Doody's Core Title 2012 The thoroughly revised Second Edition of this authoritative reference continues to define the standard of care for the field of spinal cord medicine. Encompassing all of the diseases and disorders that may a!ect the proper functioning of the spinal cord or spinal nerves, this comprehensive volume provides a state of the art review of the principles of care and best practices for restoring function and quality of life to patients with spinal cord injuries. Expert contributors from multiple disciplines cover topics ranging from acute medical and surgical management of specific problems to cutting-edge research, bladder, bowel and sexual dysfunction, neurologic and musculoskeletal issues, advanced rehabilitation techniques and technologies, functional outcomes, and psychosocial care. While comprehensive in scope, Spinal Cord Medicine offers practical guidance for physicians and other health care professionals involved in the management of individuals with SCI, multiple sclerosis, and other spinal cord disorders. The Second Edition has been completely updated to fully reflect current science and practice. Each section has been re-ordered to better present information and the Second Edition brings in many new authors and topics, more diagrams, illustrations, and tables to solidify concepts, and contains 18 entirely new chapters. Spinal Cord Medicine: Principles and Practice, Second Edition, reflects the breadth and depth of this multi-faceted specialty. Involving over 150 authors from more than 20 fields of medicine, it is a trusted reference for anyone who works with spinal cord patients and strives to deliver superior clinical care and improve outcomes.

The Cervical Spine is the most comprehensive, current, and authoritative reference on the cervical spine. Prepared by internationally recognized members of The Cervical Spine Research Society Editorial Committee, the Fifth Edition presents new information, new technologies, and advances in clinical decision making. The text provides state-of-the-art

coverage of basic and clinical research, diagnostic methods, and medical and surgical treatments, bringing together the latest thinking of the foremost orthopaedic surgeons, neurosurgeons, neurologists, rheumatologists, radiologists, anatomists, and bioengineers. Chapters cover anatomy, physiology, biomechanics, neurologic and functional evaluation, and radiographic evaluation and address the full range of pediatric problems, fractures, spinal cord injuries, tumors, infections, inflammatory conditions, degenerative disorders, and complications. Accompanying the text is a website with the fully searchable text plus a color image bank.

This second edition updates and expands on the original bestseller, Contemporary Management of Spinal Cord Injuries, with completely new chapters on applied biomechanics, pediatric spinal cord injury, patient selection and timing of the surgery, NASCIS 3 and other spinal cord injury drug trials. In addition, the text reviews the management of spinal cord injured patients with sports injuries from epidemiology to return to play, and the nutritional assessment and management of spina cord-injured patients. Contemporary Management of Spinal Cord Injuries, Second Edition provides significant value to the neurosurgeons, orthopedic surgeons, physiatrists, urologists, rehab specialist and others caring for the victims of spinal cord injury. This must-have text will teach the reader to: Identify the most common spine fractures Understand and evaluate today's state-of-the-art concepts regarding the management of spinal cord injury Understand the appropriate surgical technique Develop a multidisciplinary approach to the management of the spinal cord injured-patient (Distributed by Thieme for the American Association of Neurological Surgeons)

This title is authored by the leaders in orthopaedics and neurosurgery. Its focus is operative management of neurologic trauma, but it is designed to be a comprehensive reference. Chapters include emergency management, recovery and rehabilitation, surgical positioning, and perioperative management. Both surgical and non-surgical management of the spine is covered, organized by anatomical region. * Most comprehensive book available * Covers both surgical and non-surgical management of spine truama * Multidisciplinary approach, with contributors from orthopaedics, neurosurgery and physical medicine and rehabilitation specialists

Spinal cord injuries typically strike young, previously healthy persons, and leaves the individual with a severe, life-lasting impairment affecting all organ systems. Without adequate management, the risk of severe morbidity and mortality is very high. In contrast state-of-the-art management makes it possible for most persons with SCI to lead long, fulfilling, and autonomous lives despite neurological impairment. This book covers all medical and surgical aspects of modern SCI management from the scene of the accident through rehabilitation to the life-long follow up.

Leading North American surgeons provide a state-of-the-art look at the surgical treatment of disorders of the cervical spine in both children and adults. From a review of basic anatomy, approaches, and biomechanics through in-depth

explanations of a complete range of techniques, these authorities present today's best operative solutions for both straight-forward and complex clinical challenges. Superb artwork demonstrates exactly how to proceed. Uses a consistent format to explore each surgical condition, addressing pathophysiology · clinical presentation · diagnostic evaluation · indications for surgery · operative treatment options · preferred methods of surgical management · and common errors and pitfalls. Covers degenerative, traumatic, neoplastic, and inflammatory disorders of the cervical spine in a single, in-depth source. Delivers over 450 precise illustrations-including dozens of meticulous line drawings as well as abundant radiographs and clinical photographs-that capture the key nuances of presentation and technique. Features detailed chapters on anterior and posterior instrumentation in the cervical spine, emphasizing state-of-the-art stabilization approaches. Consistently presents alternative techniques as well as the authors' preferred methods. Addresses difficult areas such as spinal cord trauma, rheumatoid arthritis, and ankylosing spondilitis. With 27 additional contributing experts
Completely updated with contributions by world leaders in surgery and the surgery specialties, this reference assists surgeons in the diagnosis and treatment of patients by considering disease as a derangement of normal physiology, thus allowing the surgeon to correlate the appropriate use of laboratory and radiologic modalities. Arranged according to specific organ systems, the book is easily accessible and reflects the impact that scientific discoveries and technical advances have had on our understanding of the physiologic processes in surgical patients.
Patients with spinal cord injuries comprise a major percentage of the total number of trauma patients who suffer with high mortality and long-term morbidity. The majority of these patients are of young age, resulting in a disproportionately high loss of productive years of life both individually and for society [1]. One third of these patients have injuries that involve the cervical spine [1]. The management of spinal cord injury remains controversial [2-5] as does the optimal timing of surgical intervention [3]. Recent laboratory and clinical trials indicate that early surgical intervention may be associated with improved results [5-11] though previous studies have reported an increased risk of neurological deterioration with early surgical intervention
This third edition text has been largely rewritten to include the many important advances that have been made and the controversies that have arisen in the past years. New topics have been added including Oxygen Transport, Tissue Oxygenation Evaluation, Echocardiography in the Critically Ill, Bedside Ultrasonography, Critical Care Issues in Oncological Surgery Patients, Long-Term Outcome after Intensive Care, Therapeutic Hypothermia, Delirium, and Post-Operative Gastrointestinal Dysfunction. Chapters are written by high-quality contributors, many of whom are nationally and internationally recognized researchers, speakers, and practitioners in Critical Care Medicine. Another important feature of this edition is the geographical diversity of its authors, including notable contributions from colleagues in

Australia, Belgium, Brazil, Canada, Denmark, France, Germany, Norway, Portugal, Sweden, and the United Kingdom. Surgical Intensive Care Medicine, Third Edition provides a comprehensive, state-of-the art review of the field, and will serve as a valuable resource for medical students, residents, critical care fellows in training, surgeons, anesthesiologists and physicians caring for the critically ill. ?

The second edition presents the current diagnostic and surgical treatments for low back pain as well as the anatomic and physiologic rationale for their application. New sections cover the evidence-based assessment of emerging biological strategies for the treatment of degenerative disk disease and more.

A resource devoted exclusively to all aspects of spine trauma. Coverage is multi-disciplinary, covering orthopedic and neurosurgical topics. Also includes in-depth coverage of pain control, physical therapy, and rehabilitation, in addition to specific considerations of management. Presents information by specific type of injury for easy reference in clinical situations. Visualizes spinal structures and injuries with clear x-ray, CT, and MR images--almost 1,000 illustrations in all. Provides detailed coverage of surgical approaches and surgical anatomy to help plan cases. Covers evoked potentials for monitoring spinal function during surgery. Offers a strong overview of spinal rehabilitation for improved clinical management. Is written by over 50 clinically active experts in their fields.

An essential, one-stop reference guide to the evaluation and treatment of patients with cervical, thoracic and lumbar spine disease. Based on a course taught by these highly respected authors at the American Academy of Neurology's Annual Meeting, this volume gives concise descriptions of the anatomy of spine conditions; neurologic and physical findings; advice on diagnostic tests and when to order them; and medical and surgical treatment options. Commonly performed spinal procedures are also described, including the rapidly changing field of minimally invasive surgery. Pitfalls of evaluating and treating spine patients are highlighted, along with advice on how to approach the patient who does not improve or worsens after spine surgery. Spine Disorders: Medical and Surgical Management is an essential purchase for all practitioners in this field.

Presents the most up-to-date clinical and experimental research in neurotrauma in an illustrated, accessible, comprehensive volume.

"The first goal in this edition of the book remains as in the first edition - to cover the broad issues involved in the care of the spinal cord injured patient. The second goal is to provide an evaluation of spinal cord injury by experts who are deeply involved with various aspects of spinal cord injury management. Included in this new and revised edition are chapters devoted to three significant areas of development, particularly upper limb reconstruction, the use of electrical stimulation, and neuronal preservation after ischemic injury. New chapters review the state of exercise, standing, and

walking systems using electrical stimulation, and the important and emerging topic of neuronal preservation after ischemic injury. The scope of this book includes: diagnostic methods evaluation methods spinal cord injury pathophysiology medical/surgical management rehabilitation and issues of specialized care This book is a compendium of otherwise difficult to assemble knowledge replete with time tested methods as well as with contemporary developments in the form of new ideas, techniques, and concepts."

Written by recognized experts, this volume is a comprehensive reference on the use of advanced imaging techniques in the diagnosis and management of spinal trauma. In one cohesive source, the book brings together information on state-of-the-art clinical imaging—including multidetector CT and high-field MRI techniques—and the pathophysiology, neurologic evaluation, medical management, surgical treatment, and postoperative assessment of spine trauma and spinal cord injury. Also included are cutting-edge reviews of experimental imaging techniques and their applications and experimental therapies such as neurotransplantation. More than 700 illustrations—including 180 in full color—complement the text.

Surgical Management of Spinal Cord Injury: Controversies and Consensus reviews the controversies pertaining to the emergency, diagnostic, medical, and surgical management of spinal cord injury (SCI). In vitro studies, animal models, and clinical outcome analyses have all failed to yield incontrovertible guidelines that define the role of surgery in SCI. As a result, there is no consensus regarding the necessity, timing, nature, or approach of surgical intervention. In this concise yet comprehensive book some of the leading authorities in the field scrutinize the scientific data and summarize the foundations of rational treatment paradigms. Specific topics include: the timing of decompressive surgery the adjunctive use of solumedrol management of penetrating injuries radiographic evaluation spinal stabilization pediatric SCI Surgical Management of Spinal Cord Injury is an essential new book for all members of the patient care team involved in spinal cord injury.

This issue of Neurosurgery Clinics, edited by Dr. Michael G. Fehlings and Dr. Junichi Mizuno, focuses on Cervical Myelopathy. Topics include, but are not limited to, Epidemiology and overview of the clinical spectrum of degenerative cervical myelopathy; Pathobiology of degenerative cervical myelopathy; Natural history of degenerative cervical myelopathy; Imaging evaluation of degenerative cervical myelopathy: current state of the art and future directions; Pathophysiology of CPPD and OYL(OLF); Radiological evaluation of OPLL with dural ossification; Relationship of OALL, OPLL and OYL (OLF); Importance of sagittal alignment of the cervical spine in the management of degenerative cervical myelopathy; Anterior cervical options to manage degenerative cervical myelopathy; Laminectomy with or without fusion to manage degenerative cervical myelopathy; History and evolution of laminoplasty; Prediction of outcomes in managing degenerative cervical myelopathy; Neurological complications in managing degenerative cervical myelopathy; Options to manage the patient with mild degenerative cervical myelopathy; Management of the patient with cervical cord compression but no evidence of myelopathy; Intraoperative neurophysiological

monitoring for CDD; Future Directions and New Technology, and more!

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.

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.

A major surgical reference work modelled loosely after Apuzzo: BRAIN SURGERY. The book is organized first by procedures, then by problem or disease. The focus is on surgical technique, emphasizing how to deal with particularly complex problems and how to avoid complications.

The definitive textbook on the management of cervical spine trauma from master spine surgeons! Understanding the clinical

implications of cervical trauma requires thorough knowledge of the anatomy and physiology of the cervical spine. Cervical Trauma: Surgical Management by renowned spine surgeon Robert Heary and a cadre of prominent neurosurgical and orthopaedic spine experts is the most comprehensive, state-of-the-art resource available to date on this topic. The text begins with discussion of cervical anatomy and the pathophysiology of spinal cord injury (SCI), SCI classification systems, initial assessments in patients with cervical SCIs, and cranioskeletal traction, followed by injury-specific chapters. Classification systems and management protocols developed over the last 40 years have enabled spine surgeons to work collaboratively with specialists in trauma surgery and critical care to provide optimal management of SCIs and attain improved long-term patient outcomes. This book covers a full spectrum of trauma-related conditions impacting the cervical spine and multidisciplinary interventions including minimally invasive surgery, neurointerventional techniques, reconstructive therapy with bone grafts or alternative stabilization methods, evidence-based medications, and SCI rehab. Key Highlights Discussion of upper cervical injuries – from more prevalent trauma such as atlanto-occipital injuries, odontoid and hangman's fractures, and atlantoaxial subluxations – to uncommon injuries like atlantoaxial rotatory fixation Management of subaxial injuries in adults and children and cervical burst fractures Special topics including sport-related cervical spine injuries and return-to-play criteria, craniovertebral injuries in pediatric patients, and managing comorbidities such as congenital spinal stenosis and rheumatoid arthritis Pearls on handling potential complications and insightful guidance and rationales for choosing surgical interventions over conservative methods and vice versa Neurosurgical and orthopaedic residents, veteran spine surgeons, and allied healthcare practitioners who treat patients with traumatic cervical spine conditions will benefit from reading this outstanding resource, cover-to-cover. It also provides an ideal go-to reference to consult in the ER when patients present with cervical trauma.

Surgical Management of Spinal Cord InjuryControversies and ConsensusJohn Wiley & Sons

Essentials of Spinal Cord Injury is written for the spinal cord injury (SCI) team and reflects the multidisciplinary nature of treating patients with SCI. It integrates emerging medical and surgical approaches to SCI with neuroanatomy, neurophysiology, neuroimaging, neuroplasticity, and cellular transplantation. This comprehensive yet concise reference will enable neurosurgeons, orthopedic surgeons, neurologists, and allied health professionals caring for SCI patients to translate research results into patient care. It is also an excellent resource for those preparing for the board exam in SCI medicine. Key Features: Material is cross-referenced to highlight relationships between the different areas of SCI Chapters are concise, focused, and include key points, pearls, and pitfalls An Overview of the Literature table is provided in most chapters, giving readers a meaningful distillation of each publication referenced Each editor is a world-renowned expert in one of these core disciplines involved in the management of SCI patients: neurosurgery, orthopedic surgery, spinal cord science, and rehabilitative medicine This is a must-have guide that all neurosurgeons, orthopedic surgeons, neurologists, and allied health professionals involved in the care of spinal cord injury patients should have on their bookshelf.

A discussion of the options, advantages and disadvantages of both the conservative and the surgical management of

spine fractures at each level of the vertebral column. Special attention is given to procedures which may alter the courses of the initially neurologically traumatized patient.

"This book is the most useful summary of present knowledge about epidemiology, pathophysiology, assessment and management of spinal cord injuries today. It is a great book that deserves a widespread distribution among spine surgeons and physicians involved in the treatment of spinal injuries." - European Journal of Orthopaedic Surgery & Traumatology Neurotrauma and Critical Care of the Spine, 2nd edition, by a distinguished critical care neurosurgeon, Jack Jallo, and a renowned spine surgeon, Alexander Vaccaro, incorporates salient components of the highly praised first edition. The updated text reflects cutting-edge discussion on spine injury management in a neurocritical care setting. Contributions from top experts in neurosurgery, orthopaedic surgery, neurology, critical care, cardiac and pulmonary care, and trauma surgery infuse this book with a well-rounded perspective. From the pre-hospital to intensive care setting, this unique reference provides a comprehensive, yet concise approach to the treatment of acute spinal cord injury and management of patients with chronic SCI. Chapters new to this edition include neurological assessment of spinal injury, clearing the cervical spine, management of concurrent TBI and spinal injury, blood pressure and oxygen management, temperature management, fluids and osmotherapy, pharmacology, autonomic dysreflexia, infection after SCI, and emerging therapies. Key Highlights, Evaluation and management of SCI in the athlete including different injury syndromes and the latest recommendations for "return to play" in less severe cases Management of pediatric spinal injuries in the NICU with illustrative cases Specialized topics include a comprehensive review of SCI pharmacology, recent medical advances, socioeconomic and quality-of-life considerations Nearly 100 high quality illustrations facilitate understanding of complex anatomy and techniques Summary tables provide a handy overview of injury type, causes, characteristics, and recommended imaging modalities The definitive guide on the management of cervical, cervicothoracic, and thoracolumbar injuries, this is essential reading for neurosurgeons, orthopaedic surgeons, trauma and emergency specialists, and residents in these specialties. Paired with Neurotrauma and Critical Care of the Brain, 2nd edition, this dynamic duo is the most up-to-date neurocritical care reference available today.

Not since White and Sweet published Pain and the Neurosurgeon in the 1960s has there been a comprehensive review of the entire field of neurosurgical pain management. You will find a complete synthesis of all current concepts of pain neuroanatomy, physiology, and pathophysiology; new procedures that minimize invasiveness and postoperative neurological deficits; and the entire scope of surgical and medical management of chronic pain. In addition, you will benefit from the expertise of the international board of contributors, a virtual who's who in pain medicine, management, and surgery. Special features of this encyclopedic resource: * Special Considerations highlighting important practical,

clinical information * Point/Counterpoint giving the pros and cons of different treatment methods * Expert commentary offering insights and alternative views of each topic

This is the most comprehensive text available, encompassing the breadth and depth of the field of spinal cord medicine, covering topics from acute medical and surgical management to cutting-edge research, rehabilitation, and psychosocial care. This book was developed for all physicians, research scientists, and other health care professionals involved in the management of individuals with SCI, multiple sclerosis, and other spinal cord disorders.

This issue of Surgical Clinics of North America focuses on Trauma, and is edited by Drs. Oscar Guillamondegui and Bradley Dennis. Articles will include: Prehospital Assessment of Trauma; Trauma Systems; Assessment and Resuscitation in Trauma Management; Balanced Resuscitation in Trauma Management; Surgical Management of Traumatic Brain Injury; Surgical Management of Spinal Cord Injury; Surgical Management of Chest Injury; Surgical Management of Abdominal Trauma: Solid Organ Injury; Surgical Management of Abdominal Trauma: Hollow Viscus Injury; Surgical Management of Musculoskeletal Trauma; Surgical Management of Vascular Trauma; Surgical Management of Geriatric Trauma; Radiology of Trauma and the General Surgeon; Trauma Education and Prevention, and more!

Produced by a world-renowned team of trauma specialists, this source reviews initial management considerations beginning in the pre-hospital phase, continues through the primary and secondary surveys of the hospital-based evaluation process, and proceeds to the perioperative management of trauma, burns, and associated conditions. This reference pro

Spine surgery has increasingly become a surgical field of its own, with a distinct body of knowledge. This easy-to-use book, written by acknowledged experts, is designed to meet the practical needs of the novice and the busy resident by providing essential information on spine pathology, diagnostic evaluation, surgical procedures, and other treatments. After an opening general section, degenerative spinal disease, pediatric spine conditions, spine trauma, spine tumors, infections, inflammatory disorders, and metabolic conditions are all discussed in more depth. Alongside description and evaluation of surgical options, important background information is included on pathology, presentation, diagnosis, and nonsurgical treatments. Potential complications of surgery are also carefully considered. Spine Surgery Basics will be an invaluable aid for all who are embarking on a career in spinal surgery or require a ready reference that can be consulted during everyday practice.

World-renowned experts share the latest updates in translational research as well as surgical and nonsurgical strategies for treating spinal cord injury Spinal cord injury (SCI) is a devastating, clinically challenging injury, leading to varying

degrees of neurological function impairment and paralysis. Underlying biological mechanisms either inhibit or promote new growth in the spinal cord. Researchers have been making important discoveries about how neurons and their axons grow in the central nervous system and why they fail to regenerate after SCI. Although progress has been steady, there remains an urgent need to address issues in acute management such as early decompression and the use of biologics, as well as potential solutions for regeneration. Written by renowned experts in the ever-evolving field of SCI research and clinical practice, the 7th volume in the AOSpine Masters series is a state-of-the-art compendium on the latest in SCI diagnosis, spine surgery interventions, and long-term management. Each chapter contains pearls from leading spine specialists gleaned from the research laboratory and years of hands-on experience treating SCI patients in the emergency setting and long term. Key Features: Pathobiology, assessment, and diagnostic considerations The use of biomarkers as predictors of functional recovery Surgical and nonsurgical interventions for traumatic SCI The role of neural stem cells and biologics in spinal cord repair Functional and epidural stimulation and brain-computer interfaces The AOSpine Masters series, a copublication of Thieme and the AOSpine Foundation, addresses current clinical issues featuring international masters sharing their expertise in the core areas in the field. The goal of the series is to contribute to an evolving, dynamic model of evidence-based approach to spine care. This essential textbook delivers invaluable insights to spine surgeons, spinal cord injury clinicians and researchers and trainees, from translational researchers to experienced researchers and clinicians experienced in the operative and non-operative management of spinal cord injury.

In this comprehensive, clinically directed, reference for the diagnosis and treatment of persons with spinal cord injury and related disorders, editors of the two leading texts on spinal cord injury (SCI) medicine have joined together to develop a singular premier resource for professionals in the field. Spinal Cord Medicine, Third Edition draws on the expertise of seasoned editors and experienced chapter authors to produce one collaborative volume with the most up-to-date medical, clinical, and rehabilitative knowledge in spinal cord injury management across the spectrum of care. This jointly configured third edition builds on the foundation of both prior texts to reflect the breadth and depth of the specialty. Containing 60 state-of-the-art chapters, the book is divided into sections covering introduction and assessment, acute injury management and surgical considerations, medical management, neurological and musculoskeletal care, rehabilitation, recent research advances, system-based practice, and special topics. New and expanded content focuses on the significant changes in the epidemiology of traumatic injury, the classification of SCI, and the latest medical treatments of multiple medical complications. In addition, chapters discuss new surgical considerations in acute and chronic SCI and the many advances in technology that impact rehabilitation and patients' overall quality of life. With

chapters authored by respected leaders in spinal cord medicine, including those experienced in spinal cord injury medicine, physical medicine and rehabilitation, neurology, neurosurgery, therapists, and researchers, this third edition goes beyond either of the prior volumes to combine the best of both and create a new unified reference that defines the current standard of care for the field. Key Features: Covers all aspects of spinal cord injury and disease with updates on epidemiology of spinal cord injury, the classification of spinal cord injury, newer methods of surgical intervention post-injury, updates to medications, advances in rehabilitation, and changes in technology Brings together two leading references to create a singular evidence-based resource that defines the current standard of care for spinal cord medicine Presents the most current medical, clinical, and rehabilitation intelligence Chapters written by experts across the spectrum of specialists involved in the care of persons with spinal cord injury Includes access to the downloadable ebook

This book describes the diagnosis and surgical treatment approaches for a number of common and rare painful conditions affecting the brain and spine.

Representing the collective efforts of a multinational, multidisciplinary panel of spine and spinal cord trauma masters, this beautifully illustrated evidence-based textbook does more than provide multiple treatment options -- it offers unique access to insights from recognized spine experts and a thoughtful yet practical review of the most relevant literature and clinical evidence available in the field today. Each chapter centers on pertinent questions and objective reviews of state-of-the-art procedures that guide readers from an evaluation of the evidence through practical recommendations they can easily apply to their own practices. Features: Succinct outline format -- easy to read and reference 138 detailed evidentiary tables appear throughout the text An innovative new classification system for spine trauma developed by The Spine Trauma Study Group, composed of 50 internationally recognized spine experts High-quality radiographs and full-color drawings and photographs complement the text Practical recommendations for the treatment of many common spinal injuries, including odontoid fractures, central cord injuries, and thoraco-lumbar flexion distraction injuries --in-depth information on everything from intensive care to rehabilitation Accompanying MediaCenter web content contains 15 narrated videos -- over one hour of footage -- of actual procedures by the authors Spine and Spinal Cord Trauma: Evidence-Based Management is an invaluable reference for orthopaedic surgeons, neurosurgeons, residents and fellows in those specialties, and allied health professionals who care for spine injury patients.

Dr. George M. Ghobrial's handbook for neck pain encompasses all aspects of diagnosis and care of acute and chronic neck pain: early and late management, resources, facilities, physicians and other healthcare providers and their roles, medication, physical therapy, imaging, as well as surgical and nonsurgical treatments. The Neck Pain Guide follows the

recently published book of the Spine Health Learning Series, The Low Back Pain Guide (2019), with the goal to answer the most common questions encountered in the clinic and emergency department about neck pain. Using over 60 illustrations, Dr. Ghobrial introduces the anatomical and clinical issues related to degenerative disorders of the spine in a clear manner, explaining many terms such as disc herniations, spondylosis, degenerative disc disease, radiculopathy, and more. Topics include: common diagnostic imaging techniques such as X-ray, CT, MRI, as well as spinal injections, physical therapy, electrodiagnostic testing, discectomy, foraminotomy, laminotomy, fusion, disc replacement, scoliosis, bracing, minimally-invasive surgery, endoscopic surgery, laser spine surgery, and other emerging topics such as 'stem cell' injections and more. Suffering From Acute Neck and Arm Pain? Overwhelmed by the vast treatment options and not sure which to start with, or where to go? The Neck Pain Guide is a unique and comprehensive reference to assessing acute neck pain. Learn about concerning red flag symptoms, understand the available resources, and learn commonly avoidable options such as opiates and early imaging and invasive pain treatments. Nearly 100 of the most common questions asked by patients in the clinic, are answered in a clear manner, including over 200 references for easy review. Dr. Ghobrial reinforces a system that may help patients organize and guide their own care more efficiently, limit redundancy and waste, and expedite their journey to alleviate pain. Moreover, this guidebook teaches a basic process to confidently assess the evidence behind healthcare and advertising treatment claims, including research. These techniques for organization and rapid assessment are useful not only with neck pain, but for any aspect of care and also for the rapid emergency of new technologies and treatments, ultimately building confidence in managing one's own healthcare. This book is ideal for all audiences interested in learning more about the basics of neck pain management, modern healthcare treatments, and a strategy to get better. Having a medical background is not necessary to understand this book as the goal of this work is to educate patients and provide them with all the information in the same place, and to organize that information into a question and answer reference. Since not everyone has the precious free time to read lengthy nonfiction books on a single technical subject, this book is organized to allow for questions and topics to be more rapidly found among the table of contents and index, directing the reader to a helpful explanation and illustration. Despite being a highly prevalent healthcare problem in North America (also worldwide), there are no comprehensive, patient-centered books that cover the full scope of modern back pain management, which was the motivation for providing the Low Back Pain and Neck Pain Guides. Also, unlike the majority of patient-centered educational materials, a truly unique perspective is shared, which is that of a neurosurgeon with expertise and fellowship training in spinal surgery. This book will emphasize non-surgical treatments, since they comprise the majority of spinal care. The author, is a fellowship-trained spinal surgeon and neurosurgeon with an interest in public health and education. With that in mind, this book is

for patients who wish to demystify neck and low back pain, critically assess their healthcare options, and maximize informed decision making.

This textbook aims to examine some of the most controversial areas of neurological surgery by applying the current evidence to illuminate our understanding of the pathophysiology of each disease and the outcomes from surgical and non-surgical treatments. The Evidence for Neurosurgery is a textbook that will challenge current dogmas in many instances, provide an organized framework for understanding where current evidence can be applied clinically, and illustrate where gaps in the evidence exist and how these deficiencies may be filled in the future. In the first chapter, "Clinical Evidence", the reader will gain an understanding of the levels of clinical evidence and will learn what types of study designs are appropriate and in which situations. The textbook is then divided into six sections: Spine, Vascular, Tumor, Pediatrics, Functional, and Trauma.

Part of the Neurosurgery by Example series, this volume on spinal neurosurgery presents exemplary cases in which renowned authors guide readers through the assessment and planning, decision making, surgical procedure, after care, and complication management of common and uncommon disorders. The cases explore the spectrum of clinical diversity and complexity within spinal neurosurgery, including occipital cervical dislocation, cervical myelopathy, thoracic cord compression, lumbar stenosis, and more. Each chapter also contains 'pivot points' that illuminate changes required to manage patients in alternate or atypical situations, and pearls for accurate diagnosis, successful treatment, and effective complication management. Containing a focused review of medical evidence and expected outcomes, Spinal Neurosurgery is appropriate for neurosurgeons who wish to learn more about a subspecialty, and those preparing for the American Board of Neurological Surgery oral examination. Advance Praise for Spinal Neurosurgery "I congratulate Drs. Harrop and Maulucci for this well done book that utilizes a unique and very effective format to cover the gamut of spine surgery and spine care topics. The book is well organized, lavishly illustrated with numerous figures and images, and includes oral board review pearls that are of particular value for those studying for their neurosurgery board examinations." -- Edward Benzel, MD, Emeritus Chair of Neurosurgery, Cleveland Clinic, Cleveland, OH "Through this extensive collection of various spine related clinical scenarios, the reader is able to learn very pertinent management principles and pearls. This book is particularly useful for those who are preparing for the oral boards, but also serves as excellent reading material for neurosurgeons and orthopedic spine surgeons at any stage in their career." -- Charles Sansur, MD, Associate Professor of Neurosurgery, University of Maryland School of Medicine, Baltimore, MD "Drs. Harrop and Maulucci have assembled an excellent compendium of cases/pathologies. The "Case-based" approach of this text lends itself to an easy readability as well as a compartmentalization of the reading for busy practitioners. This

book is extremely useful to practitioners at all stages in their career, as it covers both basic and controversial information for each topic, and may be particularly useful for those surgeons reviewing for their oral board examination." -- Michael Y. Wang, MD, FACS, Professor of Neurological Surgery and Rehab, Medicine Spine Fellowship Director, Chief of Neurosurgery, University of Miami Hospital and Miller School of Medicine, Miami, FL