The book contains the refereed contributions from the 45th Annual Meeting of the International Society on Oxygen Transport to Tissue (ISOTT) 2017. This volume covers cross-disciplinary work on a broad range of topics related to the dynamics of oxygen transport: microcirculation and vascular medicine; O2 deficiency and its impact on molecular processes in cells and tissues; cellular metabolism and mitochondrial function; multimodal functional imaging; mathematical modeling; the clinical relevance of oxygen supply as well as therapeutic interventions (e.g. in oncology or critical care medicine). The annual meetings of ISOTT bring together scientists from diverse fields (medicine, physiology, mathematics, biology, chemistry, physics, engineering, etc.) in a unique international forum.

The book includes sections on brain oxygenation and function, NIRS oxygenation measurements, tumor oxygenation, cell metabolism, tissue oxygenation and treatment, methodical aspects of O2 measurements and physicochemical aspects of oxygen diffusion. Chapters 3, 24, 49 and 51 of this book are open access under a CC BY 4.0 license.

The MediFocus Guidebook on Alzheimer's Disease is the most comprehensive, up-to-date source of information available. You will get answers to your questions, including risk factors of Alzheimer's Disease, standard and alternative treatment options, leading doctors, hospitals and medical centers that specialize in Alzheimer's Disease, results of the latest clinical trials, support groups and additional resources, and promising new treatments on the horizon. This one of a kind Guidebook offers answers to your critical health questions including the latest treatments, clinical trials, and expert research; high quality, professional level information you can trust and understand culled from the latest peer-reviewed journals; and a unique resource to finding leading experts, institutions, and support organizations including contact information and hyperlinks. This Guidebook was updated on February 10, 2012.

Presenting step-by-step procedures written by experts in the field, this comprehensive clinical guide discusses the diagnosis (electrodiagnostic and ultrasound) and management of compressive neuropathies of the upper extremity. Compressive (or compression) neuropathy, also known as entrapment neuropathy or trapped nerve, is a common condition of the upper extremity in which the nerves of the arm – median, ulnar and radial being the most common – are compressed, causing pain and discomfort as well as possible pathological and anatomical changes. Carpal and cubital tunnel syndrome are the most well-known and treated, with nerve release and decompression surgeries being the usual treatment, though the variety of neuropathies and management strategies goes beyond these conditions. Chapters included describe in detail the latest, cutting-edge management strategies for the various manifestations of compressive neuropathy of the hand and wrist - carpal tunnel syndrome, cubital tunnel syndrome, ulnar nerve syndrome, radial tunnel syndrome, pronator teres syndrome, Wartenberg's syndrome, thoracic outlet syndrome and suprascapular neuropathy - as well as revision carpal and cubital tunnel surgical treatment options. Plentyful intraoperative photos and detailed illustrations, along with clinical case material and pearls and pitfalls, make this the ideal resource for orthopedic, hand and plastic surgeons aiming for the most optimal outcomes.

* "I commend the editors for their careful perspective on the current state of neuromonitoring. The individual chapters provide excellent overviews of specific neuromonitoring tools and paradigms. I often refer to the foreword by J. Claude Hemphill III, MD, MAS, FNCS While damage resulting from a primary injury to the brain or spine may be unavoidable, harm from secondary processes that cause further deterioration is not. This practical, clinical resource describes the latest strategies for monitoring the brain after acute injury. With a focus on individualization of treatment, the book examines the role of various monitoring techniques in limiting disability and potentiating patient recovery during the acute phase of brain injury. International experts in diagnosis and treatment of secondary injury explain in detail the current utilization, benefits, nuances, and risks for each commercially available monitoring device as well as approaches vital to the care of brain and spine injured patients. They cover foundational strategies for neuromonitoring implementation and analysis, including proper catheter placement, duration of monitoring, and treatment thresholds that indicate the need for clinical intervention. The book also addresses multimodality monitoring and common programmatic challenges, and offers guidance on how to set up a successful multimodal monitoring protocol in the ICU. A also included is a chapter on the key role of nurses in neuromonitoring and effective bedside training for troubleshooting and proper execution of treatment protocols. Numerous illustrations provide further illumination. Key Features: Presents state-of-the-art neuromonitoring techniques and clinical protocols for assessment and treatment Emphasizes practical implementation for successful patient outcomes Written by international experts at the forefront of neurocritical care monitoring Provides a framework for practitioners who wish to individualize patient care with an emphasis upon
the needs of the critically ill brain Discusses the key role of nurses in neuromonitoring and effective bedside training for management and troubleshooting of devices "

This market-leading guide covers all aspects of cerebrovascular disease, stroke syndromes, causes, prevention, evaluation and management.

Movement Disorders: Challenging Cases is unique in capturing both the "human element" of Movement Disorders, from the perspective of patient and clinician. Additionally it offers a "case-based" format that walks the reader through how a patient presents, what the challenges are, and what is the on-going thought process in the clinician's mind. Clinical case studies have long been recognized as a useful adjunct to problem-based learning and continuing professional development. Movement Disorders collects over 70 of the most memorable and challenging movement disorders from the world's leading authorities in this specialty. Compelling case vignettes covering the entire phenomenology of movement disorders are presented succinctly but descriptively to walk the reader through the diagnostic process—much like being in the examining room with a master clinician. Each case follows a set format consisting of four sections: The Case; The Approach; The Lesson; Reference and Suggested Readings. Imaging findings and other illustrations amplify the discussion where pertinent. An appendix with assessment scales and MD classification tables further enhances the utility of the book as a teaching and learning tool for clinicians.

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

This book summarizes the current state of movement disorder management and the role of surgical therapies as an alternative to medication. Following a chapter on the history of movement disorder surgery, leaders in their fields describe the pathophysiology, functional neuroanatomy, clinical presentation, and medical management of Parkinson’s disease, dystonia, and essential tremor. This is followed by chapters on the spectrum of movement disorder surgery itself, from the lesioning procedures of radiofrequency ablation, stereotactic radiosurgery, and high-frequency ultrasound to the modulatory procedures of "asleep", image-guided deep brain stimulation (DBS) and "awake", microelectrode-guided DBS. The final chapters focus on closed-loop DBS, drug-delivery, gene therapy, and other emerging neurosurgical therapies, highlighting long-standing experimental strategies at reaching exciting phases of clinical translation. This volume is a valuable tool for accessing the wide spectrum of concepts that currently define this dynamic field.

The ever-improving emergency care of those who have suffered serious cerebrovascular disease has shifted the treatment objective towards helping sufferers regain independence - meaning that there is an increased need to understand, manage and treat the residual deficits. The Behavioral and Cognitive Neurology of Stroke focuses on the diagnosis and management of behavioral and cognitive problems in patients with cerebrovascular disease. Written to be practical for clinical use, the book contains diagnosis and management strategies for all disorders observed in stroke patients, including acute and later problems, and aiming to minimize long-term disability. All important information related to each disorder is summarized in key-point tables. Fully updated throughout and containing five new chapters, this new edition brings the book up to date with the major advances of the last five years. This book will be of value to all clinicians caring for stroke patients, neuroscientists, neuropsychologists, neuorehabilitationists and a wide range of therapists.

This unique volume teaches those in the medical fields about the scientific value of neuropsychology in assessing cognition, the 6th vital sign, as part of well integrated collaborative care. It offers physicians a comprehensive tour of the many dimensions neuropsychology can add to primary and specialized medical care across the lifespan. Noted experts examine cognitive ramifications of a wide range of medical, psychological, and neuropsychological conditions, among them brain tumors, stroke, epilepsy, pediatric and adult TBI, schizophrenia, and adult ADHD. The book’s generous selection of case examples demonstrates the benefits of cognitive assessment in building accurate diagnoses, better understanding of patient needs, and more appropriate treatment and management strategies, as well as other neuropsychologist roles in consulting, referral, and forensic areas. In addition, tables, callout boxes, review questions, and other features are included throughout the text for ease in comprehension and retention. A sampling of the coverage: - The value of neuropsychological evaluation in medical practice. - A model of collaboration between primary care and neuropsychology. - Neuropsychological assessment of extremely preterm children. - Alzheimer’s Disease and overview of dementia. - Deep brain stimulation for Parkinson’s Disease. - Neuropsychology in the 21st century: the rise of multicultural assessment. - Neuropsychological interventions for individuals with brain injury. The Physician’s Field Guide to Neuropsychology is both a rigorous and an accessible reference for clinicians in diverse disciplines including general practice, family medicine, neuropsychology, pediatrics, gerontology, and sports medicine.

This book is the first comprehensive reference on the interface between neurology and internal medicine. In 171 chapters organized by organ system, the book examines the neurologic manifestations of dozens of medical conditions, the neurologic effects of drugs, organ transplantation, and other treatments, and the medical comorbidities or complications—iatrogenic or otherwise—that neurologists must diagnose and treat in patients with neurologic disease. Most chapters are co-authored by a neurologist and a non-neurologic specialist. Each chapter presents information in an accessible format and includes a case vignette and the authors' recommendations for the case. A companion Website provides a multiple-choice question for each chapter and the fully searchable text, with case vignettes and recommendations linked.

A large number of neurological conditions result in abnormal movements of the body; these are often characterized in changes in coordination and altered speed of voluntary movement. Many obscure
Many neurologic disorders can appear in quick and severe forms that require immediate medical attention. This issue of Neurologic Clinics features 14 articles on conditions that commonly present us who we are today? How do we keep our brains healthy? How do we protect, restore, or enhance the functioning of our brains as we age? How does physical activity in the brain give rise to thought, emotion, and behavior? How does the interplay of biology and experience shape our brains and make the field of neuroscience as presented to those in attendance at the workshop, as well as the subsequent discussion that resulted. As a result, three overarching Grand Challenges emerged: How does the workshop was to explore a set of common goals or “Grand Challenges” posed by participants that could inspire and rally both the scientific community and the public to consider the possibilities for Nervous System Disorders hosted more than 70 of the leading neuroscientists in the world, for a workshop titled “From Molecules to Minds: Challenges for the 21st Century.” The objective of the workshop was to explore a set of common goals or “Grand Challenges” posed by participants that could inspire and rally both the scientific community and the public to consider the possibilities for neuroscience in the 21st century. The progress of the past in combination with new tools and techniques, such as neuroimaging and molecular biology, has positioned neuroscience on the cusp of even greater transformational progress in our understanding of the brain and how its inner workings result in mental activity. This workshop summary highlights the important issues and challenges facing the field of neuroscience as presented to attendees at the workshop, as well as the subsequent discussion that resulted. As a result, three overarching Grand Challenges emerged: How does the brain work and produce mental activity? How does physical activity in the brain give rise to thought, emotion, and behavior? How does the interplay of biology and experience shape our brains and make us who we are today? How do we keep our brains healthy? How do we protect, restore, or enhance the functioning of our brains as we age?

This book provides up-to-date guidance on optimal care of the patient with an underactive bladder. It covers all aspects of management, including clinical evaluation, urodynamic diagnosis, standard care, drug therapy, and emerging treatment options. Nursing issues are extensively discussed, and advice offered on the use of catheters and avoidance of catheter-related complications. Further chapters address epidemiology, pathophysiology, animal modeling, and health care costs. While most practitioners are familiar with overactive bladder, the converse condition of underactive bladder has generally remained far below the radar. As a consequence, there is still a lack of empirically validated treatments and effective treatment strategies. This is a matter of concern, especially as the burden of the condition is expected to rise in line with the aging of global populations. The Underactive Bladder is a major step forward in raising awareness, exploring best practices in patient care, and searching for future therapies. It will be invaluable for urologists, geriatricians, other specialists, researchers, and nurses.

Adult neuropsychiatry is now a well-established field with numerous reputable references. Practitioners who work with children routinely note how references and practitioners knowledgeable in the equivalent work in the pediatric world are rare. Child psychiatrists and neurologists frequently work with individuals struggling with these conditions and would strongly benefit from such a reference that incorporates medical work-up, psychopharmacological recommendations, family/support recommendations and theoretical pathophysiology. Pediatricians and developmental pediatricians often treat children with behavioral and neuropsychiatric sequelae, but are not well-trained in the neuropsychiatric management of these cases. Neuropsychologists and educational psychologists working with children and adults with pediatric-onset conditions will also find the text helpful to contextualize their cases, better understand the medical evaluation and management and perhaps adjust recommendations that would supplement their own testing methods. Finally, sub-specialists in adult neurology, psychiatry and neuropsychiatry often find themselves working with these children by default as there are few pediatric subspecialists who are available to accept them into practice. When facing complex neuropsychiatric illness in children, many clinicians are stymied because they may have “never seen a case like that”. This text fills the wide gap that currently exists and helps move this field forward. The approach utilized in adult neuropsychiatry that is both clear and accessible does not yet have an equivalent in the pediatric realm, but there is tremendous interest in its development. Children and adolescents with neuropsychiatric conditions are very common and they and their caregivers often struggle to find professionals well educated in this field. Ultimately, a wide range of clinicians will find this text to be a very helpful resource for diagnosis and management in the spectrum of pediatric neuropsychiatric conditions. The case-based approach is also unique with respect to neuropsychiatric approaches, and the clear cut, reader-friendly approach of such a format would likely be well-received among physicians looking for a resource on this issue.

Neuroscience has made phenomenal advances over the past 50 years and the pace of discovery continues to accelerate. On June 25, 2008, the Institute of Medicine (IOM) Forum on Neuroscience and Nervous System Disorders hosted more than 70 of the leading neuroscientists in the world, for a workshop titled “From Molecules to Minds: Challenges for the 21st Century.” The objective of the workshop was to explore a set of common goals or “Grand Challenges” posed by participants that could inspire and rally both the scientific community and the public to consider the possibilities for neuroscience in the 21st century. The progress of the past in combination with new tools and techniques, such as neuroimaging and molecular biology, has positioned neuroscience on the cusp of even greater transformational progress in our understanding of the brain and how its inner workings result in mental activity. This workshop summary highlights the important issues and challenges facing the field of neuroscience as presented to attendees at the workshop, as well as the subsequent discussion that resulted. As a result, three overarching Grand Challenges emerged:

- How does the brain work and produce mental activity?
- How does physical activity in the brain give rise to thought, emotion, and behavior?
- How does the interplay of biology and experience shape our brains and make us who we are today?
- How do we keep our brains healthy?
- How do we protect, restore, or enhance the functioning of our brains as we age?
This comprehensive, practical title invites all clinicians to take a fresh look at the evaluation and management of chronic daily headache (CDH). Developed by a distinguished international panel of experts, the book examines key social and economic issues around CDH and clarifies the diagnosis of CDH disorders, providing an understanding of the underlying biological substrates, offering guidance on the use of diagnostic testing and additional consultations, and outlining treatment strategies with the greatest potential to alleviate the burden of these patients and to provide the highest quality of care. The book fully examines the constellation of symptoms that constitute chronic daily headache, while also discussing the role of behavioral medicine and the important elements involved in taking a good history. The major forms and biology of chronic daily headache are covered, as is the role of diagnostic testing and treatment. The risk factors that lead patients to transform episodic primary headache disorders into the chronic form are examined. Invasive and neuromodulatory techniques are also discussed. A section on the classification of these disorders rounds out this important contribution to the literature. Chronic Headache – A Comprehensive Guide to Evaluation and Management will be of great interest to neurologists, primary care physicians, nurse practitioners, physician assistants, medical students, and other clinicians with an interest in chronic daily headache.

Redo cardiac surgeries are challenging cases with a myriad of influential factors, ranging from the patient's pathology to the whimsy of the previous surgeon. Redo Cardiac Surgery in Adults, 2nd Edition clearly outlines practical approaches, surgical techniques, and management of associated conditions such as perioperative stroke and acute kidney function. It covers the spectrum of redo cardiac operations, including coronary artery bypass, mitral valve repair, reoperation for prosthetic mitral valve endocarditis, aortic arch reoperation, descending and thoracoabdominal aortic reoperation, and reoperations following endovascular aortic repair. All redo cardiac surgeries present a complex array of challenges beyond what the original procedure demands. This book, written by an outstanding group of prominent physicians, will give the reader the knowledge and tools to approach these cases with confidence.

This volume sets a basis for effective translational research. Authored by experts in the field of translational stroke research, each chapter specifically addresses one or more components of preclinical stroke research. The emphasis is placed on target identification and drug development using state-of-the-art in vitro and in vivo assays, in combination with in vitro toxicology assays, A M D E and clinical design.

Formulate treatment plans with confidence when you consult Sleep Disorders in Neurology, a helpful overview of both common and rare neurological disorders that are frequently accompanied by significant sleep disturbances. This concise guide explains when to consult a sleep specialist in managing a particular sleep disorder and draws on the expertise of neurologists who specialize in the disorders under discussion. This practical guide is fully illustrated and easily digested, providing a counterpoint to large, encyclopedic reference volumes. The authors take you from history-taking and diagnostic testing, to pharmacological and non-pharmacological treatment options, and are joined by disease specialists in the chapters on disease-specific sleep disturbances and the effects of common neurological medications on sleep. This book is essential for sleep medicine specialists, as well as for clinicians and healthcare professionals not specifically trained in sleep medicine, but who nevertheless need to manage neurologically damaged patients with increasingly recognized sleep-wake disturbances.

Accurately diagnose the entire spectrum of pediatric conditions with the most trusted atlas in the field: Zitelli and Davis' A tlas of Pediatric Physical Diagnosis, 6th Edition. Over 2,500 superb clinical photographs provide unparalleled coverage of important clinical signs and symptoms - from the common (pink eye) to the rare (Williams syndrome). Trusted by residents and clinicians alike, this updated classic helps you quickly and confidently diagnose any childhood condition you're likely to encounter. Get the comprehensive coverage you need - from pertinent historical factors and examination techniques to visual and diagnostic methods - with over 2,500 practical, clinical photographs to help identify and diagnose hundreds of pediatric disorders. Benefit from authoritative guidance on genetic disorders and dysmorphic conditions, neonatology, developmental-behavioral pediatrics, allergy and immunology, conditions of each body system, child abuse and neglect, infectious disease, surgery, pediatric and adolescent gynecology, orthopedics, and craniofacial syndromes - all enhanced by over 3,400 high-quality images. Prepare for the pediatric boards with one of the best, most widely used review tools available. Access the complete contents and illustrations online at www.expertconsult.com - fully searchable! Get in-depth guidance on your laptop or mobile device with online diagnostic videos of non-seizure neurological symptoms, respiratory disorders, and seizures, plus an infant development assessment tool, a downloadable image gallery (JPEGs or PPTs for easy insertion into academic presentations) and links to PubMed - all online at www.expertconsult.com. Gain an up-to-date understanding of today's hottest topics, including autism spectrum disorders, childhood obesity, inborn errors of metabolism, malformations associated with teratogens, and mitochondrial disorders. Stay current with new chapters and revised coverage of genetics, radiology, development, endocrinology, infectious diseases, cerebral palsy, skeletal syndromes, and child abuse.

Now updated to keep professionals current with the latest research and trends in the field, this edition covers both basic science and clinical practice, and draws on the talents of 53 new contributors to guarantee fresh, authoritative perspectives on advances in psychiatric drug therapy.

This is a succinct, portable, essential guide to the practical management of women with epilepsy for busy clinicians.

This book covers stereotactic principles as well as functional stereotaxis, covering the history and uses of the techniques, treatments for specific conditions, and future developments. Includes a DVD demonstrating surgical procedures.

Accurately diagnose the entire spectrum of pediatric conditions with the most trusted atlas in the field: Zitelli and Davis' A tlas of Pediatric Physical Diagnosis, 6th Edition. Over 2,500 superb clinical photographs provide unparalleled coverage of important clinical signs and symptoms - from the common (pinkeye) to the rare (Williams syndrome). Trusted by residents and clinicians alike, this updated classic helps you quickly and confidently diagnose any childhood condition you're likely to encounter. Get the comprehensive coverage you need - from pertinent historical factors and examination techniques to visual and diagnostic methods - with over 2,500 practical, clinical photographs to help identify and diagnose hundreds of pediatric disorders. Benefit from authoritative guidance on genetic disorders and dysmorphic conditions, neonatology, developmental-behavioral pediatrics, allergy and immunology, conditions of each body system, child abuse and neglect, infectious disease, surgery, pediatric and adolescent gynecology, orthopedics, and craniofacial syndromes - all enhanced by over 3,400 high-quality images. Prepare for the pediatric boards with one of the best, most widely used review tools available. Access the complete contents and illustrations online at www.expertconsult.com - fully searchable! Get in-depth guidance on your laptop or mobile device with online diagnostic videos of non-seizure neurological symptoms, respiratory disorders, and seizures, plus an infant development assessment tool, a downloadable image gallery (JPEGs or PPTs for easy insertion into academic presentations) and links to PubMed - all online at www.expertconsult.com. Gain an up-to-date understanding of today's hottest topics, including autism spectrum disorders, childhood obesity, inborn errors of metabolism, malformations associated with teratogens, and mitochondrial disorders. Stay current with new chapters and revised coverage of genetics, radiology, development, endocrinology, infectious diseases, cerebral palsy, skeletal syndromes, and child abuse.
This unique textbook deals with the variations in the causes, presentations and treatment of neurological disease throughout human populations. International Neurology is an indispensable guide to the full range of neurological conditions you will see in your ever-changing patient population. Comprehensive coverage of neurological diseases and disorders with a clinical approach to diagnosis, treatment and management. Truly international authorship distills expert knowledge from around the world. Succinct, bite-sized, templated chapters allow for rapid clinical referral. Further reading recommendations for each chapter guide readers requiring more depth of information. Endorsed by the World Federation of Neurology.

Meet the increasing need for effective brain tumor management with the highly anticipated revision of Brain Tumors by Drs. Andrew H. Kaye and Edward R. Laws. Over the past decade, enormous advances have been made in both the diagnosis and the surgical and radiotherapeutic management of brain tumors. This new edition guides you through the latest developments in the field, including hot topics like malignant gliomas, functional brain mapping, neurogenetics and the molecular biology of brain tumors, and biologic and gene therapy. Benefit from the knowledge and experience of Drs. Andrew H. Kaye and Edward R. Laws, globally recognized experts in the field of neurosurgery, as well as many other world authorities.

Epilepsy requires careful management and monitoring through a woman's life. Epilepsy is a complex disease. The hormonal changes women experience, both day-to-day menstrual fluctuations and the longer waves and wanings of a reproductive lifetime, make the management of epilepsy even more complicated. At some point, the well-being of a second person, a fetus, might also have to be taken into account. Epilepsy in Women provides a detailed guide to this challenge. The wide-ranging approach encompasses all aspects of a woman's life including: Social and psychological impacts, The impact in reproductive life, Contraception, Pregnancy, Fetal health and long term developmental outcomes, Lactation, Menopause. Each practical chapter begins and ends with a case study that demonstrates the more general challenge. The authors develop themes to provide clinical guidance based on evidence and experience. Written and edited by an international cast of experts, Epilepsy in Women provides crucial tips and recommendations for neurologists and gynecologists who need to be aware of the subtle effects of epilepsy on woman's life.

Expanded and revised, this unique book provides concise descriptions of the many causes of epilepsy, for use in clinical practice.


Electromyography remains a main diagnostic tool within neurology. This issue of Neurologic Clinics addresses the most recent developments in the clinical application of EMG. Articles in this issue include: Nerve conduction studies: Basic Concepts and Patterns of Abnormalities, Needle Electromyography–Basic Concepts and Interpretation of Recorded Potentials, Electrodiagnostic Evaluation of Carpal Tunnel Syndrome, Electrodiagnostic Evaluation of Ulnar Neuropathy, Electrodiagnostic Evaluation of Upper Extremity Mononeuropathies: Lower Extremity Mononeuropathies, Electrodiagnostic Evaluation of Brachial Plexopathies, Evaluation of Radiculopathies, Electrodiagnostic Approach to Motor Neuron Diseases, Electrophysiologic Findings in Peripheral Neuropathies, Evaluation of Neuromuscular Junction Disorders in the EMG Laboratory, Electrodiagnostic Findings in Myopathies, Electrodiagnostic Approach to Cranial Neuropathies, Technical Issues with Nerve Conduction Studies and Needle EMG, and Coding and Reimbursement of Electrodagnostic Studies.

The classification of brain tumors is up-dated using magnetic resonance spectroscopy technology. The role of cellular immortalty in brain tumors is reviewed. Tumor to tumor metastases from breast cancer, lung cancer, and renal cancer is discussed. Genetic profiling and treatment (including neurosurgery) of such brain cancers are explained. Breast cancer patients treated with certain drugs (e.g., capecitabine and lapatinib) can develop CNS tumors. Role of brain tumor suppressor genes (e.g., NRP1/B gene) is pointed out. Biomarkers used to diagnose brain malignancies are explained in detail. A number of imaging modalities used for diagnosing and assessing the effectiveness of treatments of brain tumors are presented. The imaging methods discussed include: M R I, P ET, C T, M R S I, and S P E C T. Also, is discussed the impact of PET using radiolabeled amino acids on brain tumors.

The explosion of information in neurogenetics and metabolism mandates increasing awareness of appropriate diagnostic and therapeutic strategies in the setting of certain epilepsies, especially those of very early onset. There are over 200 inherited disorders that are associated with seizures and prompt identification and intervention is crucial for a positive outcome. This text will bring together the leading authorities working in this area to present state-of-the-art clinical reviews covering the science, recognition, and treatment of the inherited metabolic epilepsies and related disorders. Specific screening protocols, laboratory testing, seizure patterns and EEG findings, imaging, and new technologies such as enzyme replacement therapy, stem cells, and gene therapy, will all be discussed. This book has the potential to be a seminal publication in a field that continues to expand rapidly.

Patient-centered, high-quality health care relies on the well-being, health, and safety of health care clinicians. However, alarmingly high rates of clinician burnout in the United States are detrimental to the quality of care being provided, harmful to individuals in the workforce, and costly. It is important to take a systemic approach to address burnout that focuses on the structure, organization, and culture of health care. Taking Action Against Clinician Burnout: A Systems Approach to Professional Well-Being builds upon two groundbreaking reports from the past twenty years, To Err Is Human: Building a Safer Health System and Crossing the Quality Chasm: A New Health System for the 21st Century, which both called attention to the issues around patient safety and quality of care. This report explores the extent, consequences, and contributing factors of clinician burnout and provides a framework for a systems approach to clinician burnout and professional well-being. A research
Neurologic illness in pregnant women requires special consideration on the part of the neurologist. These disorders can impact pregnancy in distinct ways, and their therapies must often be modified to protect the health of the mother and fetus. This issue of Neurologic Clinics features 11 articles on the interaction of the main neurologic disorders and pregnancy.

Neurological emergencies are different?in that they appear abruptly, generally have a stormy course and necessitate a rushed and yet balanced approach. This book has been conceived and written keeping in mind the needs felt by a first-contact doctor who may be a neurology trainee, a seasoned or junior neurology consultant, a physician or an intern. Special attention has been focused on the various aspects of management of patients in the emergency department, from the point of taking a good clinical history, performing a quick and targeted clinical examination to investigating and starting treatment. Emergency management of neurological conditions can be a challenge as well as reap rich dividends if it is understood and practised with maturity, skill and energy. The nihilism associated with neurological emergencies in the past is increasingly being replaced by aggressive emergency management leading to better outcomes. This book should be an asset for all practitioners who seek answers to questions that arise while managing neurological emergencies.

The goal of this book is to make a link between fundamental research in the field of cognitive neurosciences, which now benefits from a better knowledge of the neural foundations of cerebral processing, and its clinical application, especially in neurosurgery - itself able to provide new insights into brain organization. The anatomical bases are presented, advances and limitations of the different methods of functional cerebral mapping are discussed, updated models of sensorimotor, visuospatial, language, memory, emotional, and executive functions are explained in detail. In the light of these data, new strategies of surgical management of cerebral lesions are proposed, with an optimization of the benefit-risk ratio of surgery. Finally, perspectives about brain connectivity and plasticity are discussed on the basis of translational studies involving serial functional neuroimaging, intraoperative cortico-subcortical electrical mapping, and biomathematical modeling of interactions between parallel distributed neural networks.

This is the second edition (in two volumes) of a well-received book that reflects current practices in the management of neurological emergencies. It was written bearing in mind the needs of first-contact physicians, who may be neurology trainees, neurology consultants, or interns. Special attention has been paid to various aspects of managing patients at the emergency department, from taking a good clinical history, to completing a quick and focused clinical examination, to investigating and commencing treatment. Neurological emergencies are unique in that they appear abruptly, generally follow a volatile course, and require a prompt yet balanced response. The management of neurological emergencies has been a major challenge in the past, and today, early and aggressive approaches are generally recommended. Exploring these and other aspects, the book offers a valuable asset for all practitioners seeking answers to the questions that inevitably arise while attempting to manage such critical situations.