Epileptic Seizures Pathophysiology And Clinical Semiology Cd Rom 1e

Traumatic brain injury (TBI) remains a significant source of death and permanent disability, contributing to nearly one-third of all injury related deaths in the United States and exacting a profound personal and economic toll. Despite the increased resources that have recently been brought to bear to improve our understanding of TBI, the development of new diagnostic and therapeutic approaches has been disappointingly slow. Translational Research in Traumatic Brain Injury attempts to integrate expertise from across specialties to address knowledge gaps in the field of TBI. Its chapters cover a wide scope of TBI research in five broad areas: Epidemiology Pathophysiology Diagnosis Current treatment strategies and sequelae Future therapies Specific topics discussed include the societal impact of TBI in both the civilian and military populations, neurobiology and molecular mechanisms of axonal and neuronal injury, biomarkers of traumatic brain injury and their relationship to pathology, neuroplasticity after TBI, neuroprotective and neurorestorative therapy, advanced neuroimaging of mild TBI, neurocognitive and psychiatric symptoms following mild TBI, sports-related TBI, epilepsy and PTSD following TBI, and more. The book integrates the perspectives of experts across disciplines to assist in the translation of new ideas to clinical practice and ultimately to improve the care of the brain injured patient.

A panel of international ICU and epilepsy physicians and researchers detail the epileptic phenomena that occur in the complex environment of the ICU. Focusing on the central nervous system, the authors systematically examine the most up-to-date evidenced-based data regarding ICU seizures, including their most frequent causes, their pathophysiology, their clinical presentation, and the diagnostic evaluation needed to confirm their presence. They also discuss the challenges and specifics of the management of ICU seizures, reviewing the new antiepileptics and their interaction with other ICU medications, drugs with epileptogenic properties used in the ICU, and the role of the new enterally available antiepileptics in treating seizures. Numerous tables summarize drug interactions, neuroimages reveal common ICU seizure etiologies, and multiple electroencephalographic recordings demonstrate clinical or subclinical seizures in ICU patients.

The pharmacological fight against epilepsy began many centuries ago when Hippocrates discovered that the cause of epilepsy is natural, as opposed to supernatural and, as a consequence, must be treated with a natural remedy. Even though science has significantly progressed since that era, the challenge to find remedies for epilepsy is ever present. The aim of this particular volume is to offer an up-to-date review of the most recent advances in antiepileptic drug development, considered from various viewpoints: (i) general, by taking into account the size of refractory epilepsy and its related problems; (ii) experimental, by exploring the mechanisms of epileptogenesis and the possiblility of influencing it through drugs, and (iii) clinical, by describing the results obtained with compounds currently at an advanced stage of testing.

Causation is an aspect of epilepsy neglected in the scientific literature and in the conceptualization of epilepsy at a clinical and experimental level. It was to remedy this deficiency that this book was conceived. The book opens with a draft etiological classification that goes some way to filling the nosological void. The book is divided into four etiological categories: idiopathic, symptomatic, cryptogenic, and provoked epilepsies. Each chapter considers topics in a consistent fashion, dealing with the phenomenon of epilepsy in each etiology, including its epidemiology, clinical features and prognosis, and any specific aspects of treatment. The book is a comprehensive reference work, a catalogue of all important causes of epilepsy, and a clinical tool for all clinicians dealing with patients who have epilepsy. It is aimed at epileptologists and neurologists and provides a distillation of knowledge in a form that is helpful in the clinical setting.

This new third edition of The ESC Textbook of Cardiovascular Medicine is a ground breaking initiative from the European Society of Cardiology that is transforming reference publishing in cardiovascular medicine in order to better serve the changing needs of the global cardiology community. Providing the evidence-base behind clinical practice guidelines, with in-depth peer-reviewed articles and broad coverage of this fast-moving field, both the print and digital publication are invaluable resources for cardiologists across the world. Overseen by Professors A. John Camm, Thomas F. Lüscher, Patrick W. Serruys, and Gerald Maurer, supported by an editorial board of subject experts, and more than 900 of the world's leading specialists from research and the clinic contributing, this dynamic encyclopaedic resource covers more than 63 disciplines within cardiology. Split into six key parts; Introduction to the cardiovascular system; Investigations; Heart diseases; Vascular disease; Special populations, and Other aspects of cardiology, providing readers with a trustworthy insight into all aspects of cardiovascular medicine. To respond nimbly to the rapid evolution of the field the digital publication, ESC CardioMed, is continuously updated by the author teams. With expert editors and authors, and stringent peer-review, the publication combines the discoverability of digital with the highest standards of academic publishing. Highly illustrated with embedded multi-media features, along with cross-referenced links to ESC Clinical Practice Guidelines, related content and primary research data in European Heart Journal, as well as all other major journals in the field, ESC CardioMed provides users with the most dynamic and forward thinking digital resource at the heart of cardiology. As a consistently evolving knowledge base, the ESC Textbook of Cardiovascular Medicine 3e together with the online counterpart ESC CardioMed, equips all those, from trainees and consultants, to device specialists and allied healthcare professionals with a powerful, multifaceted resource covering all aspects of cardiovascular medicine.

This work is the result of a recently held International Epilepsy Colloquium on the mesial temporal lobe epilepsies (MTLE) which covered all aspects of this specific group of syndromes (or constellations), from animal model to treatment strategies. Written by international experts from different fields, it aims to provide professionals from

neuroscientists to clinical neurologists, neurosurgeons and neuropaedia-tricians dealing with mesial temporal lobe epilepsy, with a concise overview on the current body of knowledge and on emerging concepts and findings.

Seizures are frightening events. They frighten the patients who experience them; they frighten those who witness them; they also frighten many physicians who have to deal with them. Most individuals with seizures present to family physicians or to emergency room physicians. However, despite the fact that seizures are among the most common neurological conditions, most general practitioners, family practice specialists, and intemists do not see large numbers of patients with seizures. Given the apoplectic appearance of generalized tonic clonic convulsions, it is not difficult to understand why they arouse such emotional responses in those that experience them, those that witness them, and those whose care is sought for them. Seizures are symptoms of something wrong with the brain. Many different kinds of perturbations in brain anatomy, chemistry, or physiology can produce seizures. For many individuals, seizures occur in the context of an acute illness and will not recur once that illness is treated. These individuals do not have epilepsy. They have transient disturbances in brain function attributable to systemic medical conditions. It is important to recognize these issues, because, first, the seizure may be the initial, or even only, manifestation of the underlying medical problem and this needs to be recognized.

This book examines the clinical, neurophysiological, genetic, pharmacological and molecular factors which relate epilepsy and movement disorders.

The extensively updated third edition of Pediatric Epilepsy: Diagnosis and Therapy continues to be the definitive volume on the diagnosis, treatment, classification, and management of the childhood epilepsies. Written by nearly 100 international leaders in the field, this new edition progresses logically with major sections on the basic mechanisms of the disease, classification, epidemiology, etiology, diagnosis, and age-related syndromes of epilepsy. The core of the new third edition is its completely updated section on antiepileptic drugs, including an in-depth discussion of dosage considerations, drug toxicity, teratogenicity, and drug interactions, with recommendations for optimal combinations when multiple drug therapy is required. Features unique to the third edition include: Expanded section on the basic science and mechanism of epilepsy Completely updated drug chapters, including newly released drugs and those in development Expanded chapters on vagus nerve stimulation and surgical treatment Expanded section on co-morbidities The third edition includes 21 new chapters, including discussions of: epileptic channelopathies; epileptogenic cerebral cortical malformation; epilepsy genes; etiologies and workup; evidence-based medicine issues related to drug selection; Levetiracetam; Sulthiame; Pregabalin; herbal medications; basic and advanced imaging; immunotherapy issues; vagus nerve stimulation therapy; cognitive and psychiatric co-morbidities and educational placement; and psychosocial aspects of epilepsy.

This expanded edition represents the state of the art and captures many changes in our understanding of status epilepticus over the past decade. Varied characteristics and treatment approaches, the growing use of continuous EEG monitoring, and insights into the underlying biology and pathophysiology of convulsive and nonconvulsive SE are covered in depth. Authored by leading neurologists, epileptologists, and clinical neurophysiologists from around the world, this volume prepares the clinician to confront these multifaceted, sometimes subtle, and occasionally life-threatening conditions.

The Textbook of the Autoimmune Diseases is the definitive reference work about the mechanisms autoimmune diseases employ against the body and the conditions in which they thrive. Whether it's where and how autoimmune diseases disable organs from functioning, or the first symptoms of disease, this book blends both the clinical and the scientific to explain autoimmune diseases' phenomena. The only source for information on heavy metals' and silicone implants' effects on autoimmunity, this book compiles contributions from world-renowned faculty to cut across all fields of medicine, from surgery to internal medicine.

Focusing on epilepsy, this animation provides a detailed description of brain seizures, their causes, diagnosis, and treatment, including surgery and counselling, as well as information about first-aid and self care. An interactive multimedia presentation with 3-D and 2-D animations, still images, and illustrations with corresponding text and audio, this CD-ROM is formatted for MS-Windows operating system.

Eyelid myoclonia with absences is a recently described and under-recognised syndrome of idiopathic generalised epilepsy. The diagnosis may be confused with tics, attempts at self induction, and epilepsy syndromes with a better prognosis such as childhood absence epilepsy. This book summarises current knowledge on the topic; covering the underlying anatomy and physiology of the eyelids, the clinical and electro-encephalographic features and differential diagnosis in children and adults, including a discussion on the issue of self-induction of absences. The current state of knowledge on inheritance and genetics of the condition and treatment strategies are considered. Throughout, recent advances in the field are couched in an historical context, making this book a comprehensive source for all those who need to understand this syndrome whether from a research standpoint or the clinical management of affected children and adults. As such it will be of value to neurologists, epileptologists and those involved in the care and treatment of epileptic patients.

Epileptic patients live with epilepsy-associated complications such as cognitive dysfunction, psychological discomfort, and sexual function decline, and are more likely to experience emotional and mental health issues problems, including depression and anxiety. Many antiepileptic drugs are found to have a role in aggravating psychiatric symptoms. Animal models, which inform translational questions about epilepsy comorbidities, are used to study the relationship between epilepsy and related comorbidities. The aim of this Research Topic was to highlight basic, clinical and interdisciplinary research involved in studying the disease and its comorbid effects. Various experimental models are used to understand the mechansims of disease and to discover newer antiepileptic drugs. These experimental models combines the input from behavioral, biochemical and molecular level including genetic.

A panel of senior clinicians critically reviews the many forms of status epilepticus (SE), their causes, manifestations, methods of diagnosis, and appropriate treatments. The emphasis is on the disease as encountered by the clinician in the field and the importance of correct recognition and diagnosis. The authors provide for each form of SE the underlying genetic, biological, and developmental background, the pathophysiological processes, as well as the precipitating factors that lead to an episode. For the difficult problem of diagnosing nonconvulsive SE, they offer

detailed syndrome classifications, differential diagnoses, descriptions of seizure "imitators," notes on unusual behavioral and cognitive manifestations, and carefully delineated clinical presentations. Additional highlights include striking EEG reproductions that provide classic examples of patients in SE, SE in very young children and neonates, and an analysis of the cellular physiology and processes occurring during SE.

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Pocket-sized, engaging, and fully comprehensive, this illustrated guide provides the critical drug information readers need—when and where they need them Portable and reliable, Pharmacotherapy Handbook, Eleventh Edition delivers quick-access answers in any clinical setting. Whether you're a student, pharmacist, and hospital administrator, it offers a thorough understanding about what drugs are used in various situations, and why. The text delivers both the key points pharmacists needs to know in practice and the information students studying for the boards needs to pass. With JNC-VI guidelines—the standard for drug therapy and pharmaceutical care—it facilitates fast and easy access to answers, and all text will appear on AccessPharmacy for the first time

As a truly translational area of biomedical investigation, epilepsy research spans an extraordinary breadth of subjects and involves virtually every tool that modern neuroscience has at its disposal. The Encyclopedia of Basic Epilepsy Research provides an up to date, comprehensive reference for all epilepsy researchers. With an expert list of authors, the encyclopedia covers the full spectrum of research activities from genes and molecules to animal models and human patients. The encyclopedia's electronic format also provides unparalleled access to frequent updates and additions, while the limited edition print version provides another option for owning this content. The Encyclopedia of Basic Epilepsy Research is an essential resource for researchers of all levels and clinicians who study epilepsy. The only comprehensive reference for basic research and current activities in epilepsy Electronic format provides fast and easy access to updates and additions, with limited print version available as well Contains over 85 articles, all written by experts in epilepsy research

This second edition of 'Seizures and Epilepsy' is completely revised, due to tremendous advances in the understanding of the fundamental neuronal mechanisms underlying epileptic phenomena, as well as current diagnosis and treatment, which have been heavily influenced over the past several decades by seminal neuroscientific developments, particularly the introduction of molecular neurobiology, genetics, and modern neuroimaging. This resource covers a broad range of both basic and clinical epileptology.

Patients with brain tumor-related epilepsy (BTRE) suffer from two serious pathologies simultaneously – a brain tumor and a secondary form of epilepsy. Although there has been remarkable progress in BTRE research in recent years, it remains an on-going challenge for clinicians and continues to stimulate much debate in the scientific community. This volume is the first to be completely dedicated to BTRE, and in doing so it explores issues faced by the health care team as well as some of the novel and promising directions that future research may take. Epilepsy and Brain Tumors is not only a complete reference on BTRE but also a practical guide based on clinical experiences, with a comprehensive collection of presentations from international experts who share some of the latest discoveries and their approaches to tackling a wide range of difficult and complex issues. Includes coverage of epidemiology, pathology and treatment of both primary and metastatic brain tumors Offers additional insight into supportive care, incidence in children, focal epileptogenesis, clinical evaluation, antiepileptic drugs, surgical treatment, cognitive rehabilitation, and more Chapters authored and edited by leaders in the field around the globe – the broadest, most expert coverage available

This comprehensive and practical book fills the current knowledge gap about the incidence and characteristics of seizures in all kinds of cerebrovascular disorders. Chapters are divided according to the nature of cerebrovascular diseases and highlight incidence, early versus late onset seizure types, pathophysiology, electro-clinical manifestations, treatment and prognosis. Authored by leaders in the field of epilepsy and stroke, Seizures in Cerebrovascular Disorders is an excellent resource for the daily management of patients suffering from this disease overlap.

Neurology – as only Harrison's can cover it Featuring a superb compilation of chapters related to neurology that appear in Harrison's Principles of Internal Medicine, Eighteenth Edition, this concise, full-color clinical companion delivers the latest knowledge in the field backed by the scientific rigor and authority that have defined Harrison's. You will find content from renowned editors and contributors in a carry-anywhere presentation that is ideal for the classroom, clinic, ward, or exam/certification preparation. Features Current, complete coverage of clinically important topics in neurology, including Clinical Manifestations of Neurologic Diseases, Diseases of the Nervous System, Chronic Fatigue Syndrome, Psychiatric Disorders, and Alcoholism and Drug Dependency NEW CHAPTERS discuss the pathogenesis and treatment and syncope; dizziness and vertigo; peripheral neuropathy; neuropsychiatric problems among war veterans; and advances in deciphering the pathogenesis of common psychiatric disorders Integration of pathophysiology with clinical management 118 high-yield questions and answers drawn from Harrison's Principles of Internal Medicine Self-Assessment and Board Review, 18e Content updates and new developments since the publication of Harrison's Principles of Internal Medicine, 18e 58 chapters written by physicians who are recognized experts in the field of clinical neurology Helpful appendix of laboratory values of clinical importance

Epileptic SeizuresPathophysiology and Clinical Semiology

Epilepsy is one of the most familiar chronic neurological diseases and is a common yet challenging presentation in veterinary surgeries. This book covers seizure pathogenesis, classifications, diagnostic investigations, emergency treatments and longer term treatments, with a large section on pharmacological intervention. Filling a considerable gap in the

veterinary literature, it includes tables and charts for quick reference during emergencies. Seizures can be very distressing to animals and owners, yet not all seizures are the result of epilepsy, a neurological condition. This book discusses how to distinguish between epileptic and non-neurological seizures, and provides case studies to illustrate different occurrences of epilepsy.

The Epilepsies: Seizures, Syndromes and Management is the latest work from one of the world's leading experts and offers an exhaustive account of the classification and management of epileptic disorders. In thirteen chapters, Dr Panayiotopoulos gives clear and didactic guidance on the diagnosis, treatment and ongoing management of the full spectrum of epileptic syndromes with an insight and perception that only he can bring to the subject.This text is published in full colour throughout and is complemented by a pharmacopoeia and CD ROM with patient video-EEGs. An attractive, clear page layout and the accompanying supplementary material help the reader to easily identify the key components of each disorder, syndrome and seizure. Drawing on the author's outstanding collection of video-EEGs the accompanying CD ROM is cross-referenced within the text thus providing the reader with both a clinical and visual description of the various epileptic disorders and further aiding diagnosis.

An international group of recognised experts has contributed to this volume to discuss a variety of topics on epilepsy. The subject matter is diverse, including new concepts in brain circuitry involved in seizure generation, a discussion on reflex epilepsy, reviews and updates on juvenile myoclonic epilepsy, the role of EEG in epilepsy evaluation, the novel possibility of employing scalp EEG for seizure prediction, the roles of vagus nerve stimulation and other neuromodulatory therapies, non-epileptic seizures, and, no less important, some of the psychosocial issues that confront the patient and his or her family. This volume is not a comprehensive overview of the entire field of epilepsy, but each discussion is focused and will be valuable to both investigators and practitioners.

Part of the Oxford Textbooks in Clinical Neurology (OTCN) series, this volume covers the scientific basis, clinical diagnosis, and treatment of epilepsy and epileptic seizures, and is complemented by an online edition.

A comprehensive review of recent advances in the most severe form of epilepsy, focusing on two areas in which progress has been most rapid: basic mechanisms and treatment. Interest in status epilepticus--the most extreme form of epilepsy, involving continuous seizures--has surged in the last 20 years. Since 1979 there have been over 4,000 publications on the subject, including more than 1,700 in the last five years. No other text provides such a comprehensive review of the recent advances in the field of status epilepticus. The book focuses on the two areas in which progress has been most rapid: basic mechanisms and treatment. There is now a greater understanding of the mechanisms and complications of status epilepticus at the molecular level, which should eventually lead to improved therapy, and treatment strategies today have a greater sense of urgency because of the realization that neuronal apoptosis and necrosis can be triggered very quickly. After an overview of history, classification, and epidemiology, the contributors consider clinical phenomenology, biological markers, pathophysiology, brain damage, epileptogenesis, therapeutic principles, pharmacology, and therapeutic management. Their contributions are equally divided between studies of basic mechanisms in animal models and clinical studies, so that the reader can turn easily from the reductionist experiment that isolates a small component of status to the complex clinical situation in which these principles can translate into therapeutic action. The goal is to provide a scientific rationale for clinical decisions while developing therapeutic attitudes that are firmly grounded in pathophysiology.

Status Epilepticus (SE) is a neurological emergency and has high morbidity and mortality. The International League Against Epilepsy (ILAE) recently updated their definition to specify that, “SE is a condition resulting either from the failure of the mechanisms responsible for seizure termination or from the initiation of mechanisms, which lead to abnormally, prolonged seizures.” Such phenomena can lead to long-term neurological complications due to neuronal death, glia, neurological injury, aberrant neuroplasticity, oxidative stress and inflammation, and alteration of neuronal networks. Depending upon the type and duration of SE, these mechanisms are quite variable. Therefore, in response to the updated definition of SE, novel avenues of research are required to address the specified involvement of the underlying mechanisms and pathophysiology resulting in the development of and outcomes from SE. Improving the basic science understanding of SE will facilitate essential clinical trials. One can envision such experiments to include device and compound-based technological interventions directed at aborting the seizure activity and improving clinical outcomes. Benzodiazepines remain one of the cornerstones of treatment, and studies are underway to study new delivery options, including intranasal, buccal, and intramuscular midazolam, in addition to rectal diazepam, with the goal of aborting the seizure activity outside the hospitals, as rapidly as possible. Approved and off-label anticonvulsants, such as phenytoin, phenobarbital, valproate, topiramate, levetiracetam, lacosamide, steroids, immunosuppressants, and neuroprotective compounds, have also shown some efficacy at treating SE. However, substantial challenges remain in optimally managing SE and minimizing the short- and long-term complications. Such difficulties can be overcome by innovative approaches targeting the underlying mechanisms of neuronal excitability, glia, neuronal death, neuroplasticity, oxidative stress, inflammation, and neuroinflammation.

Epilepsy is one of most frequent neurological disorders affecting about 50 million people worldwide and 50% of them have at least another medical problem in comorbidity; sometimes this is a the cause of the epilepsy itself or it is due to shared neurobiological links between epilepsy and other medical conditions; other times it is a long-term consequence of the antiepileptic drug treatment. The Comorbidities of Epilepsy offers an up-to-date, comprehensive overview of all comorbidities of epilepsy (somatic, neurological and behavioral), by international authorities in the field of clinical epileptology, with an emphasis on epidemiology, pathophysiology, diagnosis and management. This book includes also a critical appraisal of the methodological aspects and limitations of current research on this field. Pharmacological issues in the management of comorbidities are discussed, providing information on drug dosages, side effects and interactions, in order to enable the reader to manage these patients safely. The Comorbidities of Epilepsy is aimed at all health professionals dealing with people with epilepsy including neurologists, epileptologists, psychiatrists, clinical psychologists, epilepsy specialist nurses and clinical researchers. Provides a comprehensive overview of somatic, neurological and behavioral co-morbidities of epilepsy Discusses up-to-date management of comorbidities of epilepsy Written by a group of international experts in the field

A comprehensive, accessible synthesis of current information on epilepsy for medical trainees and physicians preparing for board certification.

Aims to present an overview of the clinical semiology of epileptic seizures. This book/CD ROM package is meant for the practicing neurologist, who must recognize, diagnose, and treat the patient with epileptic seizures. The CD ROM demonstrates typical symptoms of different seizure types.

The Nutrition and Health series of books has an overriding mission to provide health professionals with texts that are considered essential because each includes: (1) a synthe sis of the state of the science, (2) timely, in -depth reviews by the leading researchers in their respective fields, (3) extensive, up-to-date, fully annotated reference lists, (4) a detailed index, (5) relevant tables and figures, (6) identification of paradigm shifts and the consequences, (7) suggestions of areas for future research, and (8) balanced, data driven answers to patient /health professionals questions that are based upon the totality of evidence rather than the findings of any single study. The series volumes are not the outcome of a symposium. Rather, each editor has the potential to examine a chosen area with a broad perspective, both in subject matter as well as in the choice of chapter authors. The international perspective, especially with regard to public health initiatives, is emphasized where appropriate. The editors, whose trainings are both research- and practice-oriented, have the opportunity to develop a primary objective for their book; define the scope and focus, and then invite the leading authorities from around the world to be part oftheir initiative. The authors are encouraged to provide an overview of the field, discuss their own research, and relate the research findings to potential human health consequences.

Epilepsy is one of the most common neurological disorders, and original observations in the field are often the key to diagnosis and successful treatment. Physicians new to the field as well as seasoned practitioners will benefit from more than one hundred case vignettes that explore the universe of epilepsy as it presents in daily practice. Some of these cases challenge long-held views about epilepsy and others bring the reader to the limits of our understanding of epilepsy, both in clinical and basic science. To improve the interface of clinical and basic science in epilepsy, basic scientists comment on the potential mechanisms underlying clinical observations, and clinicians assess the potential impact of recent results of experiments in the laboratory. Puzzling Cases of Epilepsy highlights the importance that original observations have in inspiring both new treatments and continued research. Presents unique and challenging case vignettes in epilepsy contributed by eminent physicians in the field Provides practicing physicians with examples of how baffling cases were handled and solved A new section provides a translational perspective, with basic scientists discussing the potential mechanisms underlying original clinical observations, and clinical scientists discussing the clinical implications of experiments in the epilepsy laboratory

Covers all aspects of epilepsy, from basic mechanisms to diagnosis and management, as well as legal and social considerations.

H.H. Jasper, A.A. Ward, A. Pope and H.H. Merritt, chair of the Public Health Service Advisory Committee on the Epilepsies, National Institutes of Health, published the first volume on Basic Mechanisms of the Epilepsies (BME) in 1969. Their ultimate goal was to search for a "better understanding of the epilepsies and seek more rational methods of their prevention and treatment." Since then, basic and clinical researchers in epilepsy have gathered together every decade and a half with these goals in mind -- assessing where epilepsy research has been, what it has accomplished, and where it should go. In 1999, the third volume of BME was named in honor of H.H. Jasper. In line with the enormous expansion in the understanding of basic epilepsy mechanisms over the past four decades, this fourth edition of Jasper's BME is the most ambitious yet. In 90 chapters, the book considers the role of interactions between neurons, synapses, and glia in the initiation, spread and arrest of seizures. It examines mechanisms of excitability, synchronization, seizure susceptibility, and ultimately epileptogenesis. It provides a framework for expanding the epilepsy genome and understanding the complex heredity responsible for common epilepsies as it explores disease mechanisms of ion channelopathies and developmental epilepsy genes. It considers the mechanisms of conditions of epilepsy comorbidities. And, for the first time, this 4th edition describes the current efforts to translate the discoveries in epilepsy disease mechanisms into new therapeutic strategies. This book, considered the 'bible' of basic epilepsy research, is essential for the student, the clinician scientist and all research scientists who conduct laboratory-based experimental epilepsy research using cellular, brain slice and animal models, as well as for those interested in related disciplines of neuronal oscillations, network plasticity, and signaling in brain strucutres that include the cortex, hippocampus, and thalamus. In keeping with the 1969 goals, the book is now of practical importance to the clinical neurologist and epileptologist as the progress of research in molecular genetics and modern efforts to design antiepileptic drugs, cures and repairs in the epilepsies converge and impact clinical care.

Atlas of Epilepsies is a landmark, all-encompassing, illustrated reference work and hands-on guide to the diagnosis, management and treatment of epilepsy in all its forms and across all age groups. The premier text in the field with over one thousand images, the Atlas’s highly illustrative approach tackles the difficult subject of epileptic seizures and epileptic syndromes, accompanied by sequential photographs of each management step. Intraoperative photographs are accompanied by detailed figure legends describing nuances, subtleties, and the thought processes involved in each step, providing a fuller understanding of each procedure. The Atlas draws on the expertise of over 300 internationally-renowned experts, and is liberally interspersed with clinical insights and personal vignettes that offer helpful tips, technical advice and critical knowledge to the clinician and scholar. The thorough and complete table of contents includes dedicated sections or chapters on important topics such as neonatal and pediatric seizures; imitators of epilepsy; EEG and neuroimaging; psychiatric and quality of life aspects of epilepsy; and a complete guide to treatment options including current and up-to-date chapters on pharmaceuticals, surgical procedures, and additional and alternative treatments. No other publication addresses epilepsies as thoroughly and completely as the Atlas of Epilepsies. Exhaustive and illustrative, convenient and current, this reference is sure to be the premier text on epilepsy for many years to come.

Affecting 4 percent of children and 1-2 percent of the general population, epilepsy is one of the most common neurological disorders. The 1st edition of this guide proved to be

the only one of its kind, covering many important aspects of diagnosis and treatment. Due to the continued advances being made in the subject, and building on the sell-out success of the 1st edition this thorough revision reflects the latest report of the ILAE classification core group and the significant progress made in the diagnosis, classification and treatment of the epilepsies.

Written for busy practitioners and trainees, Practical Epilepsy is the only concise yet exhaustive reference encompassing the broad scope of clinical epilepsy. It contains core information for professionals who wish gain a breadth and depth of knowledge about epilepsy in a shorter amount of time than is required to read large reference books, and is a valuable review tool for self-assessment or exam preparation. Designed to be read cover-to-cover, this highly practical reference covers basic science, assessment, and treatment and uses clear, succinct narratives, lists, tables, and illustrations to present the essential information needed to understand all aspects of epilepsy. The first section of the book introduces the clinical aspects of the science of epileptology with chapters on pathophysiology, genetics, classification, syndromes, epidemiology, etiology, and differential diagnosis. The second section is devoted to diagnostic evaluation, including instrumentation, normal and abnormal EEG, ICU EEG monitoring, scalp and intracranial video EEG monitoring, brain mapping, seizure semiology, neuroimaging, and other techniques. Section three covers treatment with a thorough review of basic principles, all classes of antiepileptic drugs, stimulation therapy, surgery, and dietary and alternative therapies. The final section focuses on special situations and associated concerns, ranging from status epilepticus and psychogenic nonepileptic seizures to migraines and reproductive issues. Key Features: Delivers a concise yet thorough review of the clinical science and current practice of epilepsy medicine Chapter contributions come from a wide array of specialists Presents information in crisp, formatted chapters that distill must-know information for maximum utility Useful for practitioners at any level, from trainees to more experienced clinicians Illustrated with over 100 figures, including EEG readouts and other clinical images Serves as a valuable review tool for self-study or exam preparation About the Editor: Aatif M. Husain, MD, Professor, Department of Neurology, Duke University Medical Center, Durham, NC