The Neurology of Eye Movements: Text and CD-ROM Departments of Neurology R. John Leigh Professor, Neuroscience Otolaryngology and Biomedical Engineering Case Western Reserve University University Hospitals and Veterans Affairs Medical Center Cleveland Ohio 1999-08-26 The Neurology of Eye Movements provides clinicians and researchers with a conceptual framework for the analysis, diagnosis, and treatment of abnormalities of the ocular motor system and to disorders of eye movements and was aimed toward orthoptists, ophthalmologists, optometrists, neurologists, and neurosurgeons. The material in this book is derived from a two-day course on eye movements held in The Netherlands in 1986. The course was designed as an introduction to the normal basic mechanisms involved in the control of eye movements but also to remain up to date regarding the pathophysiology of specific disorders of eye movement. The Diagnostic and Therapeutic Management section covers all of the essential topics in the evaluation and treatment of patients with dizziness and disequilibrium. The book includes more than 800 illustrations, many of which are images taken from the authors' own practice.

Neurology of Vision and Visual Disorders 2005-04-06 Neurology of Vision and Visual Disorders, Volume 176 in the Handbooks of Neurology series provides comprehensive summaries of recent research on the brain and nervous system. The book reviews abnormalities in vision that stem from the retina to the cortex. Coverage includes content on vision and driving derived from the large amount of time devoted in clinics to determining who is safe to drive, along with research on the interplay between visual loss, attention and strategic compensations that may determine driving availability. The book contains with vision therapies and the evidence behind these approaches. Each chapter is co-written by a basic scientist collaborating with a clinician to provide a solid understanding of the mechanisms behind the clinical syndromes. Reviews the neurological underpinnings of visual perception disorders Emphasizes the cortex to the retina Covers functional organization, reviews the neurological underpinnings of visual perception disorders Emphasizes the cortex to the retina Covers functional organization, computational aspects of brainstem mechanisms, and illustrates implications for disorders as diverse as opsoclonus, and congenital scotomas with gaze palsy. Section 3 addresses the clinical presentation and diagnosis of visual syndromes and disorders. Section 4 provides a comprehensive overview of visual perceptual disorders as an ocuplantar tremor. Section 4 deals with sensory-processing of visual, vestibular, somatosensory, and auditory inputs, such as are required for navigation, and gait. Section 5 illustrates how eye movements, used in conjunction with single-unit electrophysiology, functional imaging, transcranial magnetic stimulation, and lesion studies have illuminated cognitive processes, including memory, prediction, and even free will. Section 6 includes 10 papers dealing with disorders ranging from congenital to acquired forms of nystagmus, genetic and degenerative neurological disorders, and treatments for nystagmus and motion sickness. * Clinicians will find this volume a valuable late-stage reference book that addresses the latest advances in the field and includes more than 800 illustrations and detailed reviews of articles on such topics as proprioception, short and longer-term memory, and hereditary cerebellar ataxias for a more coherent presentation * Articles on anatomic tracers, functional imaging, and computational neurosciences are illustrated in color.

Eye Motility-Shirley L. Wray 2014 In Eye Motility Disorders in Clinical Practice, a leading expert with over thirty years of teaching experience in neurology and neuro-ophthalmology offers comprehensive instruction on the diagnosis and treatment of all varieties of eye movement disorders. The book now includes a fresh review of basic examination techniques in the BRK, ICU, and clinic to clinic; productive ways of taking a clinical history; sign interpretation; source of some of the most of the Witarko-Waller syndrome: hereditary cerebellar ataxia with ocular motor apraxis, techniques of examination of patients with diplopia, and pathophysiology of specific disorders of ocular motility. Many of the authors of these chapters are among the most active investigators of eye movements in the world today, and their comments thus reflect the latest information in the field. This book is both basic and comprehensive and thus has something for everyone, from the student just beginning a study of the oculomotor system to the seasoned “veteran” who wishes to know the latest information regarding central oculomotor control mechanisms. Neil R.

Eye Movements in Clinical Practice-Shirley L. Wray 2014 In Eye Movements in Clinical Practice, a leading expert with over thirty years of teaching experience in neurology and neuro-ophthalmology offers comprehensive instruction on the diagnosis and treatment of all varieties of eye movement disorders. The book now includes a fresh review of basic examination techniques in the BRK, ICU, and clinic to clinic; productive ways of taking a clinical history; sign interpretation; source of some of the most of the Witarko-Waller syndrome: hereditary cerebellar ataxia with ocular motor apraxis, techniques of examination of patients with diplopia, and pathophysiology of specific disorders of ocular motility. Many of the authors of these chapters are among the most active investigators of eye movements in the world today, and their comments thus reflect the latest information in the field. This book is both basic and comprehensive and thus has something for everyone, from the student just beginning a study of the oculomotor system to the seasoned “veteran” who wishes to know the latest information regarding central oculomotor control mechanisms. Neil R.

The Parietal Lobe-2008-03 The Parietal Lobe, Volume 151, the latest release from the Handbook of Clinical Neurology series, provides a foundation on the neuroanatomy, neurophysiology, and neurochemistry of the parietal lobe that is not only applicable to both basic researchers and clinicians, but also to educators. The book reviews abnormalities in vision that stem from the retina to the cortex. Coverage includes content on vision and driving derived from the large amount of time devoted in clinics to determining who is safe to drive, along with research on the interplay between visual loss, attention and strategic compensations that may determine driving availability. The book contains with vision therapies and the evidence behind these approaches. Each chapter is co-written by a basic scientist collaborating with a clinician to provide a solid understanding of the mechanisms behind the clinical syndromes. Reviews the neurological underpinnings of visual perception disorders Emphasizes the cortex to the retina Covers functional organization, computational aspects of brainstem mechanisms, and illustrates implications for disorders as diverse as opsoclonus, and congenital scotomas with gaze palsy. Section 3 addresses the clinical presentation and diagnosis of visual syndromes and disorders. Section 4 provides a comprehensive overview of visual perceptual disorders as an ocuplantar tremor. Section 4 deals with sensory-processing of visual, vestibular, somatosensory, and auditory inputs, such as are required for navigation, and gait. Section 5 illustrates how eye movements, used in conjunction with single-unit electrophysiology, functional imaging, transcranial magnetic stimulation, and lesion studies have illuminated cognitive processes, including memory, prediction, and even free will. Section 6 includes 10 papers dealing with disorders ranging from congenital to acquired forms of nystagmus, genetic and degenerative neurological disorders, and treatments for nystagmus and motion sickness. * Clinicians will find this volume a valuable late-stage reference book that addresses the latest advances in the field and includes more than 800 illustrations and detailed reviews of articles on such topics as proprioception, short and longer-term memory, and hereditary cerebellar ataxias for a more coherent presentation * Articles on anatomic tracers, functional imaging, and computational neurosciences are illustrated in color.

Eye Movility-Neuro-Otology 2016-03-10 Neuro-Otology: a volume in the Handbook of Clinical Neurology series, provides a comprehensive translational reference on the disorders of the peripheral and central vestibular system. The volume is aimed at serving clinical neurologists and neuroscientists. The volume is aimed at serving clinical neurologists and neuroscientists. The book now includes a fresh review of basic examination techniques in the BRK, ICU, and clinic to clinic; productive ways of taking a clinical history; sign interpretation; source of some of the most of the Witarko-Waller syndrome: hereditary cerebellar ataxia with ocular motor apraxis, techniques of examination of patients with diplopia, and pathophysiology of specific disorders of ocular motility. Many of the authors of these chapters are among the most active investigators of eye movements in the world today, and their comments thus reflect the latest information in the field. This book is both basic and comprehensive and thus has something for everyone, from the student just beginning a study of the oculomotor system to the seasoned “veteran” who wishes to know the latest information regarding central oculomotor control mechanisms. Neil R.

E.A.C.M. Sanders 2012-12-06 There is perhaps no area of neuro-ophthalmology that is advancing more rapidly with respect to understanding of the neuroanatomical location of the patient's lesion. This exercise provides the anatomical guidance needed to make critical diagnostic and management decisions in the care of patients with disorders of eye movements. This exercise provides the anatomical guidance needed to make critical diagnostic and management decisions in the care of patients with disorders of eye movements. This exercise provides the anatomical guidance needed to make critical diagnostic and management decisions in the care of patients with disorders of eye movements. This exercise provides the anatomical guidance needed to make critical diagnostic and management decisions in the care of patients with disorders of eye movements. This exercise provides the anatomical guidance needed to make critical diagnostic and management decisions in the care of patients with disorders of eye movements.

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Stroke, Part II: Clinical Manifestations and Pathophysiology-Marc Fisher, MD 2009-04-13 This volume provides a comprehensive guide to the manifestations and pathophysiology involved with stroke, including advancements in research and a newfound understanding of the biochemical background of this cerebrovascular disorder. This volume offers an exhaustive resource on many aspects of stroke, as well as an introduction to the medical management and the many neurological manifestations of stroke disorder. In addition, practitioners, clinicians, and researchers will gain a better understanding of highly studied topics, including amongst others, the medical complications associated with stroke, chapters on anterior circulation and hemorrhagic stroke syndromes, stroke related psychiatric disorders, and other rare causes of stroke disorder. * A comprehensive source that thoroughly examines the neurological manifestations of stroke * A guide to highly studied topics, including stroke complications, syndromes, and stroke related psychiatric disorders * A better understanding of the pathophysiological basis of strokes that will help practitioners better diagnose, prevent, and improve patient-care.

Neuro-ophthalmology-Christopher Kennard 2011 This volume provides a comprehensive look into the innovative methods used to play visual diagnosis and memory * Clinical and laboratory methods of evaluation that are perfect for physicians and specialists in any stage of practice.

Atlas of Ocular Anatomy-Mohamed Waksel Alberaz 2016-08-22 This book is a practical and concise atlas on ocular anatomy, with an emphasis on applied aspects and easy-to-read strategies. The vast color illustrations and anatomy charts provide self-explanatory, precise, and meaningful representations of the points covered. Each chapter is divided into three parts: Fundamentals, Innervation, and Connections. This structure is very useful for ophthalmologists, neurologists, optometrists, physicians, and other health professionals who are equipped with the tools that lay out fundamental concepts, while meanwhile summarizing clinical and laboratory methods for neuro-ophthalmological evaluation. The material is perfect for early-stage physicians or long practicing specialists who wish to learn the latest developments in the field. * A comprehensive resource that explores the innovative methods used to understand the visual system * An in-depth study of how the brain processes vision, and the role certain functions such as eye movement play in visual diagnosis and memory * Clinical and laboratory methods of evaluation that are perfect for physicians and specialists in any stage of practice.

The Wiley Blackwell Handbook of Forensic Neuroscience-Antony R. Bouch, 2016-08-26 Exploring how the expression of neuroscience-based evidence in recent years has changed, this book offers a comprehensive guide to forensic neuroscience and the law. It offers a comprehensive survey of key findings in the neurobiological field to those who work with offenders and those who design policy for offender rehabilitation and criminal justice systems, so that practices can be evaluated and policies can be altered accordingly.

The Theory of Binocular Vision-Ewald Hering 1902-06-12 The Theory of Binocular Vision is a book about neurological control theory. In this sense it was far ahead of its time, for the development of formal control theory was not made until the 1950s. Hering's principal concept is that the control of eye movements is greatly simplified if there is only one neural control system operating simultaneously. This is a good starting point for understanding neurophysiological interactions, including those that are mediated by the visual system. It serves as a useful tool for understanding the role of the brain in vision and the relationship between the eyes and other sensory systems. It builds upon previous research and provides new insights into the neural basis of visual perception. This book is a valuable resource for anyone interested in understanding the neural mechanisms underlying visual perception and behavior.