

## Neuroanatomy An Atlas Of Structures Sections And Systems Neuroanatomy An Atlas Of Structures Sections And Systems Haines Eighth North American Edition

Written by experts in the field, this beautifully illustrated text/atlas provides the tools you need to directly visualize and interpret cranial CT and MR images. It reviews with exacting detail the normal anatomic brain structures identified on sagittal, coronal, and axial imaging planes. Use this book to make accurate and complete neurological assessments at the earliest possible stages - before reaching the sectioning or operating table. This revised and expanded third edition contains nearly 600 illustrations - most in color - that provide graphic representations of brain structures, arteries, arterial territories, veins, nerves and neurofunctional systems. The illustrations depict anatomic structures in shades of gray similar to the way they are seen in CT and MR images. Highlights of the third edition:- Content and illustrations expanded by more than 20%- High resolution T1 and T2 weighted MR images- Improved anatomic terminology for more accurate descriptions of findings Clinically relevant, easily readable, and clearly organized, this well-illustrated book is an essential introduction to the field for medical students and residents in neurology, neurosurgery, neuroradiology, and radiology. Practicing specialists will also benefit from this practical day-to-day tool.

"The most complete and most profusely illustrated human brain atlas currently available. The atlas contains not only a basic core of information concerning the gross and sectional anatomy of the brain, but also material on the cytoarchitectural and vascular organization of the brain....The index is extensive and very usable." --Contemporary Psychology

Neuroanatomy in Clinical Context, Ninth Edition provides everything the student needs to master the anatomy of the central nervous system, all in a clinical setting. Clear explanations; abundant MRI, CT, MRA, and MRV images; full-color photographs and illustrations; hundreds of review questions; and supplemental online resources combine to provide a sound anatomical base for integrating neurobiological and clinical concepts. In thus applying neuroanatomy clinically, the atlas ensures student preparedness for exams and for rotations. This authoritative approach--combined with such salutary features as full-color stained sections, extensive cranial nerve cross-referencing, and systems neurobiology coverage--sustains the legacy of this revolutionary teaching and learning tool as the neuroanatomy atlas. New and hallmark features elucidate neuroanatomy and systems neurobiology for course success! NEW! Chapter on Herniation Syndromes decodes the elegant relationship between brain injury and resulting deficit. NEW! Clinical information integrated throughout the text is screened in blue for quick identification on the page. NEW! Enhanced clinical images emphasize clarity and detail like never before, including full-color images replacing many in black and white, higher-resolution brain scans, and reprocessed spinal cord and brainstem images. MRIs complement full-color anatomical illustrations, allowing for visualization of structures both as they appear to the unaided eye and on imaging studies. Unique, full-color illustrations integrate clinical images of representative lesions with the corresponding deficits highlighted. Full-color stained sections facilitate the easy identification of anatomical features. Dozens of pathway drawings superimposed over MRIs connect structure with function of neural pathways. Located on thePoint, this atlas's companion website offers a variety of supplemental learning resources to maximize study and review time! Question bank featuring over 280 USMLE-style and chapter-review style questions Bonus dissection photographs and brain slice series

By using non-invasive tomographic scans, modern neuroimaging technologies are revealing the structure of the human brain in unprecedented detail. This spectacular progress, however, poses a critical problem for neuroscientists and for practitioners of brain-related professions: how to find their way in the current tomographic images so as to identify a particular brain site, be it normal or damaged by disease? Prepared by a leading expert in advanced brain-imaging techniques, this unique atlas is a guide to the localization of brain structures that illustrates the wide range of neuroanatomical variation. It is based on the analysis of 29 normal human brains obtained from three-dimensional reconstructions of magnetic resonance scans of living persons. The Second Edition of this atlas offers entirely new images, all from new brain specimens.

This atlas instills a solid knowledge of anatomy by correlating thin-section brain anatomy with corresponding clinical magnetic resonance images in axial, coronal, and sagittal planes. The authors correlate advanced neuromelanin imaging, susceptibility-weighted imaging, and diffusion tensor tractography with clinical 3 and 4 T MRI. Each brain stem region is then analyzed with 9.4 T MRI to show the anatomy of the medulla, pons, midbrain, and portions of the diencephalon with an in-plane resolution comparable to myelin- and Nissl-stained light microscopy. The book's carefully organized diagrams and images teach with a minimum of text.

Description This stereotaxic atlas of the ferret brain provides detailed architectonic subdivisions of the cortical and subcortical areas in the ferret brain using high-quality histological material stained for cells and myelin together with in vivo magnetic resonance (MR) images of the same animal. The skull-related position of the ferret brain was established according to in vivo MRI and additional CT measurements of the skull. Functional denotations from published physiology and connectivity studies are mapped onto the atlas sections and onto the brain surface, together with the architectonic subdivisions. High-resolution MR images are provided at levels of the corresponding histology atlas plates with labels of the respective brain structures. The book is the first atlas of the ferret brain and the most detailed brain atlas of a carnivore available to date. It provides a common reference base to collect and compare data from any kind of research in the ferret brain. Key Features Provides the first ferret brain atlas with detailed delineations of cortical and subcortical areas in frontal plane. Provides the most detailed brain atlas of a carnivore to date. Presents a stereotaxic atlas coordinate system derived from high-quality histological material and in vivo magnetic resonance (MR) images of the

same animal. Covers the ferret brain from forebrain to spinal cord at intervals of 0.6 mm on 58 anterior-posterior levels with 5 plates each. Presents cell (Nissl) stained frontal sections (plate 1) and myelin stained sections (plate 2) in a stereotaxic frame. Provides detailed delineations of brain structures and their denomination on a Nissl stained background on a separate plate (3). Compiles abbreviations on plate 4, a plate that also displays the low resolution MRI of the atlas brain with the outlines of the Nissl sections in overlay. Displays high-resolution MR images at intervals of 0.15 mm from another animal with labeled brain structures as plate 5 corresponding to the anterior-posterior level of each atlas plate. Provides detailed references used for delineation of brain areas. Target audience of the book: The book addresses researchers and students in neurosciences who are interested in brain anatomy in general (e.g., for translational purposes/comparative aspects), particularly those who study the ferret as important animal model of growing interest in neurosciences.

Ideal for students of neuroscience and neuroanatomy, the new edition of Netter's Atlas of Neuroscience combines the didactic well-loved illustrations of Dr. Frank Netter with succinct text and clinical points, providing a highly visual, clinically oriented guide to the most important topics in this subject. The logically organized content presents neuroscience from three perspectives: an overview of the nervous system, regional neuroscience, and systemic neuroscience, enabling you to review complex neural structures and systems from different contexts. You may also be interested in: A companion set of flash cards, Netter's Neuroscience Flash Cards, 3rd Edition, to which the textbook is cross-referenced. Coverage of both regional and systemic neurosciences allows you to learn structure and function in different and important contexts. Combines the precision and beauty of Netter and Netter-style illustrations to highlight key neuroanatomical concepts and clinical correlations. Reflects the current understanding of the neural components and supportive tissue, regions, and systems of the brain, spinal cord, and periphery. Uniquely informative drawings provide a quick and memorable overview of anatomy, function, and clinical relevance. Succinct and useful format utilizes tables and short text to offer easily accessible "at-a-glance" information. Provides an overview of the basic features of the spinal cord, brain, and peripheral nervous system, the vasculature, meninges and cerebrospinal fluid, and basic development. Integrates the peripheral and central aspects of the nervous system. Bridges neuroanatomy and neurology through the use of correlative radiographs. Highlights cross-sectional brain stem anatomy and side-by-side comparisons of horizontal sections, CTs and MRIs. Expanded coverage of cellular and molecular neuroscience provides essential guidance on signaling, transcription factors, stem cells, evoked potentials, neuronal and glial function, and a number of molecular breakthroughs for a better understanding of normal and pathologic conditions of the nervous system. Micrographs, radiologic imaging, and stained cross sections supplement illustrations for a comprehensive visual understanding. Increased clinical points -- from sleep disorders and inflammation in the CNS to the biology of seizures and the mechanisms of Alzheimer's -- offer concise insights that bridge basic neuroscience and clinical application.

The topographical and functional architecture of the human brain is highly complex. This stereoscopic atlas provides new insight into the human brain. The illustrations in this stereoscopic atlas have been developed using a new 3D-visualization computer model. In combination with the CD-ROM, which contains all 173 illustrations as rotatable 3D models, this innovative atlas provides a new conception of spatial structures. It has never been so easy to understand the architecture of the human brain!

The Human Brain in Dissection will significantly update the previous edition published in 1988. The last 20 years have seen a significant shift in the way that neuroanatomy is taught in both undergraduate and graduate neuroscience courses, as well as doctorate courses: not only has the time allocated for these courses been reduced, but the methodologies for teaching have become more focused and specific due to these time constraints. The Human Brain in Dissection, Third Edition will provide detailed features of the human brain with the above limitations in mind. 50 new plates will be added to the existing 123 in order to permit the student to see all salient structures and to visualize microscopic structures of the brain stem and spinal cord. Each chapter will cover a specific area of the human brain in such a way that each chapter can be taught in one two-hour neuroanatomy course. New to this edition is the inclusion of a section in each chapter on clinically relevant examples. Each chapter will also include a specific laboratory exercise. And finally, the author has included a question and answer section that is relevant to the USMLE, as well as recommended readings, neither of which were included in the previous editions. This new edition of The Human Brain in Dissection will allow the student to: understand basic principles of cellular neuroscience; learn gross and microscopic anatomy of the central nervous system (Brain, brainstem, and spinal cord); relate the anatomy of central neural pathways to specific functional systems; be able to localize and name a CNS lesion when presented with neurological symptoms, and appreciate higher cortical functions and how they relate to the practice of neurology. neuroscience

Many studies of the neural bases of language processes are now conducted with functional and structural neuroimaging. Research is often compromised because of difficulties in identifying the core structures in the face of the complex morphology of these regions of the brain. Although there are many books on the cognitive aspects of language and also on neurolinguistics and aphasiology, Neuroanatomy of Language Regions of the Human Brain is the first anatomical atlas that focuses on the core regions of the cerebral cortex involved in language processing. This atlas is a richly illustrated guide for scientists interested in the gross morphology of the sulci and gyri of the core language regions, in the cytoarchitecture of the relevant cortical areas, and in the connectivity of these areas. Data from diffusion MRI and resting-state connectivity are integrated with critical experimental anatomical data about homologous areas in the macaque monkey to provide the latest information on the connectivity of the language-relevant cortical areas of the brain. Although the anatomical connectivity data from studies on the macaque monkey provide the most detailed information, they are often neglected because of difficulties in interpreting the terminology used and in making the monkey-to-human comparison. This atlas helps investigators interpret this important source of information. Neuroanatomy of Language

Regions of the Human Brain will assist investigators of the neural bases of language in increasing the anatomical sophistication of their research and in evaluating studies of language and the brain. Abundantly illustrated with photographs, 3-D MRI reconstructions, and sections to represent the morphology of the sulci and gyri in the frontal, temporal, and parietal regions involved in language processing Photomicrographs showing the cytoarchitecture of cortical areas involved in language processing Series of coronal, sagittal, and horizontal sections identifying the sulci and gyri to assist language investigators using structural and functional neuroimaging techniques All images accompanied by brief commentaries to help users navigate the complexities of the anatomy Integration of data from diffusion MRI and resting-state connectivity with critical experimental anatomical data on the connectivity of homologous areas in the macaque monkey

Never HIGHLIGHT a Book Again! Virtually all of the testable terms, concepts, persons, places, and events from the textbook are included. Cram101 Just the FACTS101 studyguides give all of the outlines, highlights, notes, and quizzes for your textbook with optional online comprehensive practice tests. Only Cram101 is Textbook Specific. Accompany: 9781605476537 .

This multimedia resource offers a complete introduction to neuroanatomy with superb, clear and thoroughly labeled images and illustrations within an elegant navigation structure. It emphasizes the practical aspects of how to identify neuroanatomical structures, with quizzes and chapter self-assessments. The content is organized into sections covering light-microscopic neurohistology, electron-microscopic neurohistology, skull-meninges-spinal cord, gross anatomy of the brain, sectional anatomy of the brain, and brain imaging. Digital Neuroanatomy: An Interactive CD Atlas with Review Text features: Richly illustrated throughout with over 300 images A brief printed textbook that follows the same organization and approach, reviewing all the main concepts Self-grading quizzes with answers that include a detailed explanation A help mode offering animated explanations of the primary programme features A dynamic navigation structure providing direct access to specific points in the large volume of content An ideal tool for teaching, self-instruction, and self-assessment, Digital Neuroanatomy: An Interactive CD Atlas with Review Text is an invaluable resource for students, teachers, and scientists alike. It is useful for undergraduate courses and graduate courses in medical, anatomy, radiology, dental, and pharmacy schools, as well as those in schools of dentistry and physical therapy.

The perfect companion to the best-selling neuroanatomy atlas on the market. The program allows students to view and rotate illustrations from the atlas--from anatomical to clinical orientations--and tests their knowledge with end-of-chapter questions and answers. Faculty image bank also included.

This comprehensive atlas depicts the entire range of normal variants seen on neuroradiologic images, helping radiologists "decode" appearances that can be misdiagnosed as pathology. The book features nearly 900 radiographs that show normal variants seen on plain film, MR, CT, and angiographic images, plus accompanying line drawings that demonstrate normal angiogram patterns and other pertinent anatomy. Dr. Jenkins, a well-known neuroradiologist, takes a multimodality approach to the cranium, sella, orbit, face, sinuses, neck, and spine. In an easy-to-follow format, he provides the information radiologists need to identify unusual features...assess their significance...avoid unnecessary, expensive studies...and minimize exposure and risk.

The "functional" in the title of this book not only reflects my personal bias about neuroanatomy in brain research, it is also the gist of many chapters which describe sophisticated ways to resolve structures and interpret them as dynamic entities. Examples are: the visualization of functionally identified brain areas or neurons by activity staining or intracellular dye- iontophoresis; the resolution of synaptic connections between physiologically identified nerve cells; and the biochemical identification of specific neurons (their peptides and transmitters) by histo- and immunocytochemistry. I personally view the nervous system as an organ whose parts, continuously exchanging messages, arrive at their decisions by the cooperative phenomenon of consensus and debate. This view is, admittedly, based on my own experience of looking at myriads of nerve cells and their connections rather than studying animal behaviour or theorizing. Numerous structural studies have demonstrated that interneurons in the brain must receive hundreds of thousands of synapses. Many neurons receive inputs from several different sensory areas: each input conveys a message about the external world and possibly also about past events which are stored within the central nervous system. Whether an interneuron responds to a certain combination of inputs may be, literally, a matter of debate whose outcome is decided at the post synaptic membrane. A nerve cell responding to an overriding command is possibly a rare event.

Publisher's Note: Products purchased from 3rd Party sellers are not guaranteed by the Publisher for quality, authenticity, or access to any online entitlements included with the product. Snell's Clinical Neuroanatomy, Eighth Edition, equips medical and health professions students with a complete, clinically oriented understanding of neuroanatomy. Organized classically by system, this revised edition reflects the latest clinical approaches to neuroanatomy structures and reinforces concepts with enhanced, illustrations, diagnostic images, and surface anatomy photographs. Each chapter begins with clear objectives and a clinical case for a practical introduction to key concepts. Throughout the text, Clinical Notes highlight important clinical considerations. Chapters end with bulleted key concepts, along with clinical problem solving cases and review questions that test students' comprehension and ensure preparation for clinical application. Preceded by Neuroanatomy in clinical context / Duane E. Haines. Ninth edition. 2014.

Focusing on the anatomic concepts that speech-language pathology students must master, Atlas of Neuroanatomy for Communication Science and Disorders is a user-friendly guide to the neural basis of human communication and brain-based disorders. With this book, students will acquire a full understanding of the basic anatomy and physiology of human communication, the neural mechanisms controlling speech, language, cognition and swallowing functions, the anatomic underpinnings of speech/language disorders of the nervous system and related communication impairments, and much more! Special features: An extraordinary, full-color visual library of labeled anatomic illustrations--from Thieme's world-renowned Atlas of Anatomy Series--that makes every concept crystal-clear Descriptive legends and text that bridge the gap between neuroanatomic principles and clinical applications A logical framework that begins with a clear, illustrated

overview of the anatomy of the brain and nervous system, ensuring mastery of introductory concepts before moving on to more advanced material. An in-depth look at how neuroanatomic structures are integrated into functional and dysfunctional communication systems, with coverage of aphasia, neuromotor speech disorders, impairments caused by traumatic brain and blast injuries, and more. Includes online access via scratch-off code to Thieme's collection of anatomy images on WinkingSkull.com PLUS, featuring nearly 600 full-color illustrations and timed self-tests with immediate feedback to help identify areas for further study. Edited by Dr. Leonard L. LaPointe, one of today's foremost teachers and practitioners in the field of speech-language pathology, this book offers a wealth of high-yield information for use in the classroom, exam preparation, and course review. It is essential for graduate and undergraduate students in speech-language pathology, audiology, and communication sciences, and will be a valued reference for any clinician working to understand the crucial connection between neuroanatomy and functional systems when treating patients with communication disorders.

This new edition is completely redesigned, with additional magnetic resonance images, line drawings to complement the macroscopic atlas, and an extensively expanded section of coronal images. (Midwest).

The Human Nervous System is a definitive account of human neuroanatomy, with a comprehensive coverage of the brain, spinal cord, and peripheral nervous system. The cytoarchitecture, chemoarchitecture, connectivity, and major functions of neuronal structures are examined by acknowledged authorities in the field, such as: Alheid, Amaral, Armstrong, Beitz, Burke, de Olmos, Difiglia, Garey, Gerrits, Gibbins, Holstege, Kaas, Martin, McKinley, Norgren, Ohye, Paxinos, Pearson, Piro, Price, Saper, Sasaki, Schoenen, Tador, Voogd, Webster, Zilles, and their associates. Large, clearly designed 8-1/2" x 11" format 35 information-packed chapters 500 photomicrographs and diagrams 6,200 bibliographic entries Table of contents for every chapter Exceptionally cross-referenced Detailed subject index Substantial original research work Mini atlases of some brain regions

Serial sections - 2 mm thick - of the cerebral hemispheres and diencephalon in the coronal, sagittal, and horizontal planes. So as to point out the level of the sections more accurately, each is shown from different angles -- emphasizing the surrounding hemisphere surfaces. This 3D approach has proven to be extremely useful when apprehending the difficult anatomy of the gyri and sulci of the brain. Certain complex cerebral structures such as the occipital lobe, the deep grey matter and the vascularization are studied here in greater detail. This second edition has been completely revised and updated, 44 serial sections have been added, while old MRI figures have been replaced by newer ones.

\* Contains one of the best collections of neural images to appear in an atlas \* Included throughout are high-resolution slide images of gross brain and spinal cord anatomy and histologic preparations \* Places major emphasis on functional correlations and principles of systems organizations \* Included throughout are high-resolution slide images of gross brain and spinal cord anatomy and histologic preparations \* Places major emphasis on functional correlations and principles of systems organizations \* Many of the images contained in the book are already in use for instruction by The National Board of Medical Examiners and several national medical schools

Presenting a clear visual guide to understanding the human central nervous system, this second edition includes numerous four-color illustrations, photographs, diagrams, radiographs, and histological material throughout the text. Organized and easy to follow, the book presents an overview of the CNS, sensory, and motor systems and the limbic system.

A new edition of the lavishly illustrated guide to brain structure and function. This atlas is an outstanding single-volume resource of information on the structure and function of specific areas of the brain. Updated to reflect the latest technology using 3 Tesla MR images, this edition has been enhanced with new functional MRI studies as well as a new section on diffusion tensor imaging with three-dimensional reconstructions of fiber tracts using color coding to demonstrate neural pathways. Highlights: Glossary of neuroanatomic structures and definitions provides the reader with a foundation in structures, function, and functional relationships. High-quality images are divided into five sections, including Sagittal MRI views, Axial MRI views, Coronal MRI views, Fiber-Tracking Diffusion Tensor Imaging, and Three-Dimensional MRI views. Icons rapidly orient the reader with the location of each view or the diffusion pathway. This book eliminates the need to sift through multiple books for the current information on the structure and function of the brain. It is invaluable for clinicians in radiology, neuroradiology, neurology, neurosurgery, psychiatry, psychology, neuropsychology, and neuroanatomy. The atlas is also ideal for medical students, nursing students, and individuals seeking to gain a firm understanding of human brain anatomy and function.

This text provides students with the basic knowledge of neuroanatomy needed to practise medicine. Each chapter starts with a neurological case history which sets the scene. This is then followed by a chapter outline for quick access to material, and chapter objectives to focus the student on the most important material in that chapter.

The Brain Atlas: A Visual Guide to the Human Central Nervous System integrates modern neuroscience with clinical practice and is now significantly revised and updated for a Fourth Edition. The book's five sections cover: Background Information, The Brain and Its Blood Vessels, Brain Slices, Histological Sections, and Pathways. These are depicted in over 350 high quality intricate figures making it the best available visual guide to human neuroanatomy.

This study of the brain stem and the cerebellum is the sequel to a previous study of the brain (cerebral hemispheres and diencephalon) [82]. The brain stem and cerebellum are dealt with here for the same purpose as was the brain in the previous work, i.e., to reach, step by step, knowledge that is comprehensive enough for an understanding of an atlas of sections and its clinical use. Following a brief survey of the methods used, the first chapter describes the brain stem and cerebellum surfaces as well as their location in the posterior cranial fossa. The second and the third chapter, respectively, describe the brain stem and cerebellum structures followed by brief surveys of their functions, enabling the reader to obtain an introductory view of the role of both the nuclei and fasciculi. The fourth chapter studies the brain stem vascular network in detail. Thus, this chapter sums up the results of research on brainstem superficial blood vessels and their intra nervous territories that were already presented in two previous works [79, 80]. By contrast, presentation of the cerebellar vascularization follows the previous literature.

The traditional education of the neurosurgeon and duce simultaneous contrast preparations of the ar the clinician working in related specialties is based teries and veins and thus obtain a complex photo on their presumed knowledge of the macroscopic graphic representation of the structures of the prep anatomy of the brain as traditionally taught. Most aration. neurosurgical textbooks, therefore, provide macro The manuscript and drawings were completed in the scopic views of sections of the operative site. The years 1974-1976 after almost two decades of neu literature that has accumulated in recent years on rosurgical work. The data worked out in the early the subject of microneurosurgical operations also stages (Chapter 1 in particular) were used by the follows this principle. author as the basis for teaching programmes at the For some years, however, the customary macro University of Giessen. Chapters 2-7, dealing with scopic representation of the anatomy of the brain the operative technical aspects, were produced after has been inadequate for the needs of the neurosur mid-1975 and used by the author as the basis for geon using refined modern operative techniques. microneurosurgical teaching of his colleagues at the Furthermore, despite their detailed presentation, University of Freiburg. stereotactic atlases are also insufficient for neuro My thanks are due to Doz. Dr. E. Never HIGHLIGHT a Book Again Includes all testable terms, concepts, persons, places, and events. Cram101 Just the FACTS101 studyguides gives all of the outlines, highlights, and quizzes for your textbook with optional online comprehensive practice tests.

Only Cram101 is Textbook Specific. Accompanies: 9780872893795. This item is printed on demand.

The Sixth Edition of Dr. Haines's best-selling neuroanatomy atlas features a stronger clinical emphasis, with significantly expanded clinical information and correlations. More than 110 new images--including MRI, CT, MR angiography, color line drawings, and brain specimens--highlight anatomical-clinical correlations. Internal spinal cord and brainstem morphology are presented in a new format that shows images in both anatomical and clinical orientations, correlating this anatomy exactly with how the brain and its functional systems are viewed in the clinical setting. A new chapter contains over 235 USMLE-style questions, with explained answers. This edition is packaged with Interactive Neuroanatomy, Version 2, an interactive CD-ROM containing all the book's images.

The Mouse Nervous System provides a comprehensive account of the central nervous system of the mouse. The book is aimed at molecular biologists who need a book that introduces them to the anatomy of the mouse brain and spinal cord, but also takes them into the relevant details of development and organization of the area they have chosen to study. The Mouse Nervous System offers a wealth of new information for experienced anatomists who work on mice. The book serves as a valuable resource for researchers and graduate students in neuroscience. \* Visualization of brain white matter anatomy via 3D diffusion tensor imaging contrasts enhances relationship of anatomy to function \* Systematic consideration of the anatomy and connections of all regions of brain and spinal cord by the authors of the most cited rodent brain atlases \* A major section (12 chapters) on functional systems related to motor control, sensation, and behavioral and emotional states, \* Full segmentation of 170120+ brain regions more clearly defines structure boundaries than previous point-and-annotate anatomical labeling, and connectivity is mapped in a way not provided by traditional atlases A detailed analysis of gene expression during development of the forebrain by Luis Puelles, the leading researcher in this area. \* Full coverage of the role of gene expression during development, and the new field of genetic neuroanatomy using site-specific recombinases \* Examples of the use of mouse models in the study of neurological illness With over 400 illustrations, this thoroughly updated edition examines how parts of the nervous system work together to regulate body systems and produce behavior.

This multimedia CD-ROM is a comprehensive and interactive visual guide to normal brain anatomy and brain pathology as seen on tomographic images. The CD-ROM contains over 13,000 MRI, PET, SPECT, and CT images and video clips of normal brain structures and pathologic changes in cerebrovascular, neoplastic, degenerative, and inflammatory/infectious diseases. Thirty illustrative cases integrate whole-brain imaging data sets from real patients with clinical information. Unique software navigational tools enable the user to / compare normal and abnormal images / view transaxial slices of the brain / superimpose images in different modalities / take guided video "tours" of brain structures and disease states. An Atlas of Normal Structure and Blood Flow depicts 100 major brain structures. Complete demonstrations of vascular anatomy and normal aging are also included. The 30 cases consist of full volume data sets in one or several imaging modalities. Some cases include images acquired at several points in the course of a disease. The images can be superimposed to allow direct spatial and temporal comparisons between image types and between points in time. Windows / Macintosh Compatible Compatibility: BlackBerry® OS 4.1 or Higher / iPhone/iPod Touch 2.0 or Higher / Palm OS 3.5 or higher / Palm Pre Classic / Symbian S60, 3rd edition (Nokia) / Windows Mobile™ Pocket PC (all versions) / Windows Mobile Smartphone / Windows 98SE/2000/ME/XP/Vista/Tablet PC

It was only in 1980 that the first recognizable magnetic resonance images of the human brain were published, by Moore and Holland from Nottingham University in England. There then followed a number of clinical trials of brain imaging, the most notable from the Hammersmith Hospital in London using a system designed by EMI, the original manufacturers of the first CT machines. A true revolution in medicine has ensued; in only a few years there are thousands of scanning units, and magnetic resonance imaging (MRI) has assumed a central importance in medical investigation. It is an extraordinary fact that within a few years of development, the esoteric physics of nuclear spin, angular momentum, and magnetic vector precession were harnessed to provide exquisite images of living anatomy; modern science has no greater tribute. That indisputable king of neurology and the oldest of recorded conditions, epilepsy, has not been untouched by the new technology; indeed, it is our view that the introduction of MRI of electroencephalography (EEG) in the late has been as important to epilepsy as was that 1930s. Now, for the first time, the structural and aetiological basis of the condition is susceptible to thorough investigation, and MRI can provide structural detail to parallel the functional detail of EEG. MRI has the same potential as had EEG over 50 years ago, to provide a new level of understanding of the basic mechanisms, the clinical features and the treatment of epilepsy.

Without question Dr. Haines book is the best selling neuroanatomy book on the market and for good reason. It provides an enormous amount of valuable information, clearly presented with excellent photographs and drawings. This new edition offers more MRI/CT examples, revised clinical correlations, and a color key for easier reference.

A unique review of the essential topographical anatomy of the brain from an MRI perspective, correlating high-quality anatomical plates with high-resolution MRI images. The book includes a historical review of brain mapping and an analysis of the essential reference planes used. It provides a detailed review of the sulcal and the gyral anatomy of the human cortex, guiding readers through an interpretation of the individual brain atlas provided by high-resolution MRI. The relationship between brain structure and function is approached in a topographical fashion with an analysis of the necessary imaging methodology and displayed anatomy. An extensive coronal atlas rounds off the book.

A Doody's Core Title Superbly illustrated, this core textbook reinforces an understanding of basic neuroanatomical structures by emphasizing their clinical significance in neurologic disease. Featuring a seamless integration of over 400 illustrations within the text, Functional Neuroanatomy includes cross-sectional atlas views of the brain and brain stem, MRI images in three planes, and key concepts identified within each chapter.

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