Lasers In Neurosurgery Foundations Of Neurological Surgery 1st Edition By Robertson Jon H Published By Springer Hardcover

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Image-Guided Neurosurgery Elsevier Health Sciences
The advent in the 1960s of the unique and exciting new form of energy called laser brought to medicine a marvelous tool that could accomplish new treatments of previously untreatable disorders as well as improved treat ment of mundane problems. This brilliant form of light energy is many times more powerful than the energy of the sun yet can be focused microscopically to spot sizes as small as 30 microns. Lasers can be directed into seemingly inaccessible areas by mirrors or fiberoptic cables or can be directly applied into sensitive areas such as the retina without damage to intervening structures. There has been a rapid proliferation in the use of lasers in all surgical specialties. Starting with bold ideas and experiments of "thought leaders" in each specialty, the application of lasers has evolved into commonplace usage. Beginning with the era when laser presentations and publications were an oddity, now nearly all specialty areas have whole sections of meetings or journals devoted exclusively to laser usage. Laser specialty societies within a specialty have developed and residency training programs routinely instruct trainees in laser techniques. Basic science and clinical experimentation has supported laser knowledge. Laser usage has also become international. Newer wavelengths and accessories have added to the armamentarium of laser usage. Despite the rapid growth in laser interest, no single source exists to instruct the many new laser users in proper, safe, and effective use of this new modality.
The Introduction of Laser Applications Into Biology and Medicine Elsevier Health Sciences
This volume contains the Proceedings of a two-week NATO Advanced Study Institute on "Laser Systems for Photobiology and Photomedicine", conducted from May 11 to 20, 1990 in Erice, Italy. This is the 15th annual course of the International School of Quantum Electronics (ISQE), organized under the auspices of the "Ettore Majorana" Center for Scientific Culture. The application of lasers to medicine and surgery has made amazing progress since the last ISQE Course on this subject in 1983. The present Proceedings give a tutorial introduction to today's most important areas, as well as a review of current results by leading researchers. Among the possible approaches to a NATO Advanced Study Institute on Laser Systems for Photobiology and Photomedicine, we chose to emphasize the scientific and technological aspects of advanced laser systems when applied to laboratory and clinical tests. Since it is the policy of the School to stress the advanced scientific and techn·ological achievements in the field of Quantum Electronics, the Course broadly covers performance already achieved and potential applications.
Femtosecond Laser Surgery in Ophthalmology CRC Press
Expand your skills in the rapidly growing field of laser dentistry! The new second edition of Principles and Practice of Laser Dentistry contains everything you need to know about the latest laser procedures across all areas of dentistry. With vivid clinical photos and easy-to-follow writing, Dr. Robert A. Convissar and his team of dental experts walk you through the most common uses of lasers in areas like: periodontics, periodontal surgery, oral pathology, implantology, fixed and removable prosthetics, cosmetic procedures, endodontics, operative dentistry, pediatrics, orthodontics, and oral and maxillofacial surgery. The book also covers topics such as the history of lasers in dentistry, laser research, the latest laser equipment, and how to go about incorporating lasers into your practice, so that you are fully equipped to use lasers successfully in your treatments. The latest evidence-based, authoritative information is written by experts from all areas of dentistry (periodontics, orthodontics, oral surgery, prosthodontics, implants, endodontics, and pediatric and general dentistry). Case studies reflect treatment planning and the use of lasers for a variety of pathologies. Detailed, full-color art program clearly illustrates preoperative, intraoperative, and postoperative procedures. Summary tables and boxes provide easy-to-read summaries of essential information. Clinical Tips and Caution boxes interspersed throughout the text highlight key clinical points. Glossary at the end of the book provides definitions of laser terminology. Chapter on Introducing Lasers into the Dental Practice provides guidelines for the investment into lasers. NEW! Updated content on regenerative laser periodontal therapy, lasers in implant dentistry, lasers in restorative dentistry, low-level lasers in dentistry, and laser dentistry research reflects the latest technology advancements in the field. NEW! More clinical photos, equipment photos, and conceptual illustrations offer a detailed look at how equipment is used and how procedures are completed.
National Library of Medicine Audiovisuals Catalog Lasers in Neurosurgery
Advances in Intervertebral Disc Disease in Dogs and Cats defines our present knowledge of this common clinical problem, compiling information related to the canine and feline intervertebral disc into a single resource. As a comprehensive, focused work, the book is an authoritative reference for understanding and treating disc disease, providing a sound scientific and clinical basis for decision making. Offering an objective synthesis of the current literature, the book supplies guidance on the approach to a potential disc rupture, surgical and medical strategies, and management of the patient. Offering a complete understanding of intervertebral disc disease, the book describes and discusses the controversies and issues surrounding this topic, acknowledging the gaps in our knowledge. Advances in Intervertebral Disc Disease in Dogs and Cats presents up-to-date, reliable information on this common condition for veterinary surgeons and general practitioners. Key features Describes the current knowledge of disc disease in dogs and cats Provides a state-of-the-art, complete resource focused entirely on this common clinical problem Gives an objective picture of the controversies around intervertebral disc disease in canine and feline patients Presents evidence-based and clinically relevant information for understanding and treating intervertebral disc disease Offers clear clinical recommendations grounded in the current literature Part of the Advances in Veterinary Surgery series copublished with the ACVS Foundation
Expert Consult - Online Springer Science & Business Media
Personalized medicine, which simply means selection of treatment best suited for an individual, involves integration and translation of several new technologies in clinical care of patients. The scope is much broader than indicated by the term genomic medicine because many non-genomic factors are taken into consideration in developing personalized medicine. Basic technologies for personalized medicine, of which molecular diagnostics has the biggest share, are mentioned briefly and appropriate references are given for further information. Commercial aspects are discussed briefly in a chapter and detailed analysis of markets and companies involved in personalized medicine is presented in a special report on this topic. There is increasing interest in personalized medicine. Considerable advances have taken place in molecular biology and biotechnology to make personalized medicine a viable option, but some misconceptions still exist, both in the academic and commercial sectors. There is lack of a suitable source of information that provides both the fundamentals as well as applications of personalized medicine. As the latest version of the first monograph on personalized medicine published in 1998, this volume, Textbook of Personalized Medicine, summarizes the author’s efforts during the past decade, as well as reviews selected studies done during this period in a readable format for the physicians and scientists. It is hoped that physicians, pharmacists, scientists and interested lay readers with basic scientific knowledge

will find this book useful.
Current Bibliographies in Medicine Thieme
This issue of Anesthesiology Clinics provides essential updates in neurosurgical anesthesia. Topics include anesthesia for endovascular neurosurgery; interventional neuroradiology; neuroimaging; anesthetic management of patients with acute stroke; perioperative management of pediatric patients; anesthetic neurotoxicity; airway management in neuroanesthesiology; anesthetic considerations for awake craniotomy for epilepsy; perioperative uses of trans cranial perfusion monitoring; monitoring and introaoperative management of elevated ICP and decompressive craniectomy; electrophysiologic monitoring in neurosurgery; traumatic brain injury; perioperative pain management in the neurosurgical patient; controversies in neurosciences critical care; sleep and mechanisms of anesthesia; and impacts on outcome after neuroanesthesia.
Principles and Practice of Laser Dentistry - E-Book Thieme
Lasers in NeurosurgerySpringer Science & Business Media
The Essentials Elsevier Health Sciences
This two volume set is a comprehensive guide to neurosurgery. Each section covers neurological disorders in different parts of the body, beginning with an introduction and ending with key practice points for quick review, integrating theory and practice. Genetics, ethics and physiotherapy are also discussed. With contributions from recognised specialists in the USA and Europe, this practical manual includes more than 1000 images and illustrations to assist learning and understanding. Key Features Comprehensive two volume set giving complete review of field of neurosurgery Covers numerous neurological disorders in different parts of the body Each section feature key practice points for quick review Integrates theory and practice More than 1000 images and illustrations Contributions from US and European specialists
Functional Neurosurgery Elsevier Health Sciences
Fully updated to meet the demands of the 21st-century surgeon, Aesthetic Plastic Surgery, Volume 2 of Plastic Surgery, 3rd Edition, provides you with the most current knowledge and techniques in aesthetic plastic surgery, allowing you to offer every patient the best possible outcome. Access all the state-of-the-art know-how you need to overcome any challenge you may face and exceed your patients' expectations.
National Library of Medicine Current Catalog JP Medical Ltd
With the exploding progress we are experiencing in the field of lasers in neurosurgery it was felt that a new volume devoted to lasers in neurosurgery is needed. As opposed to other early laser publications which were limited to North American contributors we have decided to publish Lasers in Neurosurgery which presents the findings of neurosurgeons from throughout the world. The decision to publish all contributions in English, regardless of the native language of the author, makes Lasers in Neurosurgery truly a forum for international neurosurgeons. Our intent is to make available the findings of international neurosurgeons, which are frequently published in less fa miliar languages, to neurosurgeons beyond the boundaries of the authors' countries. We hope that neurosurgeons not only in North America and Europe, but throughout the world, will profit by Lasers in Neurosurgery. November 1988 Edward F. Downing, M. D. , F. A. C. S. Contents FRANK, F. : Basic Physics and Biophysics 1 TEW JR. , J. M. , TOBLER, W. D. , ZUCCARELLO, M. : The Treatment of Arteriovenous Malformations of the Brain with the N- dymium: YAG Laser. . . . . 19 CLARK, W. C. , ROBERTSON, J. H. : Laser Resection of Meningiomas 49 ASCHER, P. W. : Tumours on and in the Pons and Medulla oblongata 69 NEBLETT, C. R. : Reconstructive Vascular Neurosurgery: Micros- gical CO Laser Application. . . . . 95 2 CRONE, K. R. , BERGER, T. S. , TEW JR. , J. M. : Laser Applications in Pediatric Neurosurgery. . . . . .
Volume 2: Aesthetic Surgery Springer Science & Business Media
Developments in the field of instrumentation of innovative instrumentation. Although laser applications have permeated nearly every aspect are among the major contributions to human advancement. The history of surgery has seen of surgical therapy, the expectations have fre many revolutionary developments cause quantum quently been unrealistic and the evaluation of leaps in progress. Electrocautery, the anesthesia technological development has always been machine, computed axial tomography, and the painfully slow. The properties of vaporization, surgical microscope are all revolutionary in coagulation, and cutting unified in an invisible struments that have irrevocably changed the shaft of light have enabled the neurosurgeon to direction of neurological surgery. vaporize inaccessible tumors of brain and spinal In the early stages of application, there are cord, harness recalcitrant bleeding sites, and cut always detractors and valid controversy concern through the most formidable calcified tumors. ing the value of a new instrument. Some will The application of this new energy form in remember those who argued that the magnifica tandem with the surgical microscope has, in my tion and illumination provided by the micro opinion, extended the scope of all aspects of scope were not valuable to the skilled surgeon neurosurgery. We have much more work to do. and would prolong the operative time and in lt is necessary to document improved results and crease infection rates. Others may recall that demand technological advances and safe inno Cushing was told to abandon the blood pressure vations.
Cumulative List of Organizations Described in Section 170 (c) of the Internal Revenue Code of 1954 Springer Nature
This book is a review of past and current studies and future plans of the Laser Laboratory in Cincinnati and some of the contributions of laser research groups in other medical centers. Special thanks are due to the Directing Physicist of the Laser Labora tory, R. James Rockwell. Without his advice, constant supervision and corrections, this enthusiastic investigator would continue to upset even many more people than he has done already. The excuse, of course, is to stimulate much needed interest and controlled research and development of the laser for biology and medicine. The Associate Research Physicist, Ralph Schooley, has worked with many phases of laser research but especially in Q spoiling, Raman spectroscopy, and the almost alchemy of holography. Holography, as of now, provides many opportunities for Gumperson's Law, "If anything can go wrong, it will. " Sincere appreciation is expressed to the Surgeons in the Laser Labora tory, who have supplied clinical and investigative surgical supervision often under great difficulties, Dr. V. E. Siler and Dr. Bruce Henderson. We are grateful for help from the Directing Biologist of the Laser Labo ratory, Edmond Ritter, the Director of Laser Neurosurgery, Dr. Thomas Brown and the Professor of Neurosurgery, Dr. Robert McLaurin, for important and basic work in laser neurosurgery. Special thanks are given to Robert Meyer, who has given most of the treatments in careful and skillful fashion, and his associate, Robert Otten.
Laser Technology: a Survey Oxford University Press
Fundamentals of Neuroanesthesia is a comprehensive guide to neuroanesthesia which focuses neurophysiology, neuroanatomy, and neurosurgical procedures, and then offers practical approaches to the practice of neurosurgical anesthesia.
Volume 1: Basics Springer Nature
In children, the central nervous system tumors complished through advances in the three main are exceeded in incidence only by leukemia and antineoplastic therapeutic modalities-surgery, are more common than any of the other malig radiation therapy, and chemotherapy. Improve nancies of childhood. Childhood central nervous ments in neurosurgical technique concomitant system tumors encompass a range of histo with improvements in anesthesia and periopera logic varieties from the histologically benign tive supportive care have resulted in decreased appearing pilocytic astrocytoma to the extremely morbidity and mortality from neurosurgical malignant-appearing glioblastoma multiforme procedures together with an increased likelihood of accomplishing a gross total resection of and the undifferentiated primitive neuroecto dermal tumors. Similarly, the biologic behavior tumor. Radiotherapy has evolved from using orthovoltage (200-250 KV) equipment to of childhood brain tumors varies not only ac cording to histology but also with location of supervoltage equipment with much-improved the tumor and age. Unlike primary central nerv penetration, thus allowing for the administra ous system tumors in adults, many varieties of tion of accurate homogeneous high doses to childhood brain tumors have the propensity to large volumes without significant effects on the disseminate via the cerebrospinal fluid path overlying skin and soft tissues. Preliminary data ways.
Neurosurgical Anesthesia, An Issue of Anesthesiology Clinics -E-Book Springer Science & Business Media
First multi-year cumulation covers six years: 1965-70.
Plastic Surgery E-Book: 6 - Volume Set Thieme
In one book, the practitioner can obtain a solid foundation in the field of endoscopy as practiced by neurosurgeons. Included is a review of the physics and instrumentation of neuroendoscopic systems, comprehensive coverage of the anatomy upon which neuroendoscopic procedures are performed, and illustrations and text describing how endoscopic surgery can be used as an alternative to traditional surgery for such complex procedures as hematoma evacuation, abscess, and third ventriculocisternostomies. Avoiding and managing frequently encountered complications are thoroughly discussed. Intracranial Endoscopic Neurosurgery contains: The physics of neuroendoscopic systems and the instrumentation Neuroendoscopes and instruments Access to the ventricular system Anatomy for neurosurgical endoscopic procedures The use of endoscopes for shunt placement Third ventriculostomy Neuroendoscopic treatment of arachnoid cysts Endoscopic removal of colloid cysts Endoscopic management of complex hydrocephalus Endoscopy-Assisted craniotomy and microsurgery Endoscopic transsphenoidal resection of stellar lesions (Distributed by Thieme for the American Association of Neurological Surgeons)
Principles and Practices in Cutaneous Laser Surgery Springer Science & Business Media
This is the first of four volumes that together elaborate on an advanced minimally invasive neurosurgery (MIN) technique for cerebral hemorrhages, which makes it possible to prevent secondary injury by the hematoma and to preserve neurological function and accelerate neuropsychological recovery after the evacuation. It describes in detail the theoretical, technical and training procedures necessary to carry out successful intracerebral hemorrhage evacuations using MIN techniques. A combination of mouth-tracked microsurgery, neuro-sonography, neuro-endoscopy, LASER and sealing makes highly effective, minimally invasive evacuation of all types of hematomas possible. The MIN Key Concept, an advanced new model based on the Keyhole Concept and MIN techniques is also presented. Lastly, the scientific basics of MIN are discussed and summarized. A historical curriculum vitae is included in memory of the main pioneer of innovative MIN techniques, Prof. Axel Perneczky, to whom this book is dedicated.
Percutaneous Laser Disc Decompression Elsevier Health Sciences
Image-Guided Neurosurgery provides readers with an update on the revolutionary improvements in imaging and visualization relating to neurosurgery. From the development of the pneumoencephalogram, to the operating microscope, to cross sectional imaging with CT and later MRI, to stereotaxy and neuronavigation, the ability to visualize the pathology and surrounding neural structures has been the driving factor leading surgical innovation and improved outcomes. The book provides a comprehensive reference on the application of contemporary imaging technologies used in neurosurgery. Specific techniques discussed include brain biopsies, brain tumor resection, deep brain stimulation, and more. The book is ideal for neurosurgeons, interventional radiologists, neurologists, psychiatrists, and radiologists, as well as technical experts in imaging, image analysis, computer science, and biomedical engineering. A comprehensive reference on image-guided neurosurgery Includes coverage of neuronavigation in cranial surgery and advanced imaging, including functional imaging, adoption of intra-operative MRI and emerging technologies Covers all image-guided neurosurgery tools, including robotic surgical devices Ideal reference for topics relating to neurosurgery, imaging, stereotaxis, radiosurgery, radiology, epilepsy, MRI, the use of medical robotics, lasers, and more
cumulative listing Springer Science & Business Media
Will full-color photographs throughout, this reference demonstrates and assesses various technologies and methods to effectively perform laser treatments for a variety of cutaneous disorders-emphasizing the selection of the appropriate laser for each clinical situation, practical treatment guidelines, and the avoidance of complications in the practice of laser surgery.
Acoustic Neuroma Elsevier Health Sciences
Fully updated to meet the demands of the 21st-century surgeon, Plastic Surgery provides you with all the most current knowledge and techniques across your entire field, allowing you to offer every patient the best possible outcome. Edited by Drs. Mathes and Hentz in its last edition, this six-volume plastic surgery reference now features new expert leadership, a new organization, new online features, and a vast collection of new information - delivering all the state-of-the-art know-how you need to overcome any challenge you may face. Renowned authorities provide evidence-based guidance to help you make the best clinical decisions, get the best results from each procedure, avoid complications, and exceed your patients’ expectations. Consult this title on your favorite e-reader, conduct rapid searches, and adjust font sizes for optimal readability. Compatible with Kindle®, nook®, and other popular devices. Apply the very latest advances in every area of plastic surgery and ensure optimal outcomes with evidence-based advice from a diverse collection of world-leading authorities. Master the latest on stem cell therapy, tissue engineering, and inductive therapies • aesthetic surgical techniques and nonsurgical treatments • conjoined twin separation and other craniofacial surgery advances • microsurgical lymphatic reconstruction, super microsurgery, and sternal fixation • autologous lipofilling of the breast • nerve transfers in hand surgery, hand allotransplantation, and functional prosthetics • and much, much more. Easily find the answers you need with a new organization that features separate volumes covering Principles • Aesthetic • Craniofacial, Head and Neck Surgery • Lower Extremity, Trunk and Burns • Breast • and Hand and Upper Extremity, plus a more templated, user-friendly, high-yield presentation. Visualize procedures more clearly through an abundance of completely redrawn full-color illustrations and new color clinical photographs. Access the complete, fully searchable contents of each volume online, download all the tables and figures, view 160 procedural videos, and take advantage of additional content and images at www.expertconsult.com!