

multiple choice questions on limb prosthetics with justifiable trepidation. Yet the amputation surgeon's skill and care ultimately have a major influence on the success of prosthetic selection, fitting, comfort and utility. Some measure of understanding would therefore seem reasonable.

This small textbook is designed to provide entry level surgeons, therapists, prosthetists and even administrators with a basic knowledge of the current state of prosthetic art. It focuses on a broad overview of the components of a successful limb prosthesis, while nicely introducing and explaining the principles of basic engineering and terminology. The information presented is current to 1998. The book introduces mainstream thinking and avoids reference to fringe or fad treatments.

The book contains 65 pages devoted to lower extremity prostheses and 44 pages devoted to upper extremity prostheses. Within these few pages, 93 line drawings expand and illustrate mechanical principles and modern appliances. For the neophyte surgeon or therapist, the bewildering array of joint substitutions and terminal appliances are presented in outline and selection criteria summarized. Thus, in a single evening, the new member of an amputation clinic team can get a quick overview of the main issues in limb prosthetics.

Of particular note in the section on the lower extremity, a well-organized and illustrated review of stance phase control and swing phase control devices is presented. In the section on the upper extremity, standard body-powered articulations and terminal devices are emphasized. The subject of externally-powered upper limb prostheses is unfortunately given meagre attention. Given that most upper limb amputees are extremely interested in myoelectric controlled devices, a more extensive explanation of the systems required for signal detection, amplifi-

cation and application of motor control, as well as the current limitations, would have been appropriate.

The book is clearly written, well illustrated and of broad interest to those requiring at least superficial familiarity with limb prosthetics. This book will not allow the reader to solve most fitting problems or analyse malalignment during gait, but it will teach the reader to ask the right questions.

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CLINICAL APPLICATION OF THE INTRA-AORTIC BALLOON PUMP. 3rd revised edition. Hooshang Bolooki. 470 pp. Illust. Futura Publishing Company, Inc., Armonk, NY. 1998. US\$98. ISBN 0-87993-401-8

More than 14 years have passed since the publication of the second edition of this book. Its main purpose is to describe the function and clinical applications of the intra-aortic balloon pump (IABP) in various clinical conditions, to review the new achievements and complications of the IABP and to present a basic description of the physiology of balloon pumping and cardiac dysfunctions. This book was written to serve as a text and reference source rather than as a manual or quick guide on how to set up and run the device. It is intended for members of the multidisciplinary team, including cardiac surgeons, cardiologists, clinical physiologists (intensivists), technologists, perfusionists and critical care nurses.

The book is divided into 5 sections comprising multiple chapters. In the first 2 sections the author presents an accurate description of the contemporary principles of assisted circulation, cardiac function and pathophysiology

of cardiac failure and cardiogenic shock. These 2 sections are not meant to be an exhaustive discussion of the basic physiologic principles and clinical features of cardiac failure. They do, however, present a clinical classification of failure, supported by schematic diagrams, and a good discussion on the clinical applications and predicted value of a shock box, well illustrated by hypothetical patient scenarios.

In the third section, which covers 186 pages, the author provides complete reviews of the historical background, the balloon pump equipment and consoles and catheters. A chapter on the physiology of balloon pumping is the most exhaustive one in the book and covers the topic in detail supported by excellent diagrams and electrocardiographic rhythm strips. A chapter on insertion and removal of the IABP catheter includes an interesting review of the author's experience since 1978 and presents different techniques (percutaneous and surgical). There are also chapters on contraindications and guidelines for the use of balloon pumping and finally a detailed, well-written chapter on the complications of intra-aortic balloon pumping.

The fourth section covers the management of patients on the IABP, including nursing care, hemodynamic monitoring and data acquisition, pharmacologic treatment, weaning strategies and management of other organ systems while the IABP is in use. This well-written section also contains concentration charts for commonly used "drips" in cardiac surgery, a table of normal values for hemodynamic measurements, a table that shows the basic pharmacokinetic effects of various pressure agents commonly used in patients on the IABP and a review of problems and troubleshooting strategies. The interesting final chapter in this section addresses contemporary issues of cost effectiveness, and ethical and legal considerations.

The last section contains an in-depth review of the indications for the use of the IABP in both adult and pediatric populations, including standby, and electrical and emergency indications. There is also a discussion of miscellaneous indications such as cardiac transplantation and intrapulmonary balloon pumping.

With the exception of the final section, which is poorly identified, and chapter 20 "an overview," which is mistitled as "Indications for use of intra-aortic balloon pump," this book is well written and well organized. It should be welcome as a reference text to the libraries of multidisciplinary teams caring for cardiac patients.

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SPINE SURGERY. TECHNIQUES, COMPLICATION AVOIDANCE, AND MANAGEMENT. Volumes I and II. Edited by Edward C. Benzel. 1538 pp. Illust. Churchill Livingstone, Philadelphia; Harcourt Brace & Co. Canada, Ltd., Toronto. 1999. Can\$488. ISBN 0-443-07540-9, vol. I part no. 9997631668, vol. II part no. 9997631676

This comprehensive 2-volume textbook is directed at individuals with a primary interest in spinal surgery. It aims to provide a complete summary of pertinent aspects of the surgical management of spinal disease. The editor and authors come from a neurosurgical background, but with the confluence of knowledge related to the surgical management of spinal disease this textbook will be useful to all individuals with a focus on surgery of the spinal column.

The volumes are arranged in 5 sections, although functionally there are 3 major divisions within the text. The introductory chapters and sections can be grouped into the "background" section of embryology, anatomy, biomaterials and bioengineering concepts. A further section on surgical approaches and specific surgical procedures are arranged anatomically from cervical to lumbosacral spine. There are large sections devoted to spinal implants and fixation devices and their application and use. The final major section deals with adjuncts to surgery such as surgical positioning, imaging, stereotaxis, evoked potential monitoring and a complete section on nonsurgical management of the patient with spinal disease.

This is not a textbook one would read from cover to cover. It provides a comprehensive view of the majority of spinal surgery. As a result of multiple authorship there is significant repetition of detail related to surgical indications, and surgical approaches are detailed in a number of the chapters. Also, I had to look in many areas of the book to gain a complete understanding of one specific area of the spine. For instance, instrumentation of the cervical spine is in a different volume from the chapters describing decompression of the cervical spine. Some disorganization and fragmentation of topics also occurs because some chapters address minor issues and contain only 2 or 3 pages and other chapters contain up to 40 pages. Areas of spinal surgery such as scoliosis and pediatric deformity, which could occupy entire texts of their own, are covered in varying depths. It is clear that a general text like this could not do justice to all topics or to all individuals' tastes.

Nevertheless, the book provides a "one-stop shop" for the interested practitioner. I particularly liked the final portion, in which specific controversies are debated. This provides a re-

freshing point-counterpoint argument that allows readers to draw their own conclusions.

This 2-volume set would be welcome on the shelves of surgeons with an interest in spinal disease and will be valuable to the senior resident or fellow who plans to gain further training in spinal surgery. The trainee who is reading up on a topic or preparing for a surgical procedure would find this a convenient reference that provides sufficient information in one location. There is little material on the epidemiology, conservative management and assessment of the patient with mechanical back symptoms; however, as illustrated by the title, rational information to guide the surgical management of spinal disease is the primary goal of this text. I believe that this goal has been met.

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SURGICAL DISORDERS OF THE PERIPHERAL NERVES. Rolfe Birch, George Bonney and C.B. Wynn Perry. 539 pp. Illust. Churchill Livingstone, Edinburgh; Harcourt Brace & Co. Canada, Ltd., Toronto. 1998. Can\$247. ISBN 0-443-04443-0

This book represents a continuation of the classic work *Surgical Disorders of the Peripheral Nerves* by Sir H.J. Seddon. The introduction to this text makes most interesting reading. The history of H.J. Seddon and the development of the Peripheral Nerve Injury Unit in Oxford, UK, are reviewed, and new developments in this field are incorporated. Generally, the layout of the original book has been retained, but the text has been rewritten.