

# **Atlas of Amputations and Limb Deficiencies. Surgical, Prosthetic, and Rehabilitation Principles**

*Third Edition. Edited by Douglas G Smith, John W Michael, and John H Bowker. Pp. xvii + 965. Illustrated. R1 769. American Academy of Orthopaedic Surgeons. 2004. ISBN 0-89203-313-4. (Available from SAMA-HMPG. Price R1 769, members R1 590.)*

The AAOS seldom disappoints with its publications and this edition of the *Atlas of Amputations and Limb Deficiencies* lives up to

all expectations. Actually, these expectations are exceeded as this work embraces musculoskeletal deficiencies, including those of the spine, rather than only limb deficiencies.

The introductory section provides the relevant historical perspective and then proceeds to address the principles involved in amputations and their management. Contentious and problematical areas where decision making is paramount, such as limb salvage and dealing with infection and poor vascularity, are well dealt with in this section.

Section II addresses the upper limb and commences with an exposé of motion and function of the upper limb, followed by a well-illustrated documentation of available prosthetic fitting. Thereafter deficiencies at all levels, starting with fingertip injuries and progressing up the arm to shoulder girdle ablation, are systematically described. The surgical techniques and prosthetic applications are detailed. Practical issues relating to prosthetic choice and patient training are useful inclusions in this text. A chapter on adaptations of prostheses for sporting activities (and potentially to any area of activity) illustrates the inventive ingenuity demonstrated in this field.

In section III, the lower limb section examines the kinematics and physiology of gait in normal individuals and in the amputee. Each level of amputation is systematically described, detailing and illustrating the surgical procedure and prosthetic management. Translumbar amputations are covered in some detail. The section dealing with paediatric deficiencies, both congenital and acquired, is an essential component of this comprehensive presentation.

Generally, the book is well written and generously and clearly illustrated, providing a wealth of information and wisdom with regard to all aspects of musculoskeletal deficiencies. Of significant value is the comprehensive coverage of problems and complications relating to surgery, practical issues relating to prosthetic choice and fitting, and the psychological adjustment to altered body image and function. It achieves a fine balance between the presentation of the clinical or functional problem, the surgical techniques involved and the prosthetic issues.

This book, written by an authoritative faculty, is the definitive work on musculoskeletal deficiencies and represents the state of the art as it exists today. The *Atlas of Amputations and Limb Deficiencies* is essential reading for all health care professionals involved in the management of these problems, and an essential acquisition for all medical libraries.

**Johan Walters**