Book reviews

Sports Medicine

R. H. Strauss

Philadelphia, USA: W. B. Saunders, 1991, £36.50, 267 × 190 mm, 582 pp

This American book, now in its second edition, differs from the usual books with sports medicine in the title. This book deals exclusively with the medical as opposed to the traumatic aspects of sports medicine. The 582 pages are divided into five sections.

Section 1 is devoted to disorders of the cardiovascular system related to exercise. There is a good review of the evidence of the benefits and risks involved. Section 2 deals with various organ systems, in some depth. Section 3 has mixed topics, including overtraining, nutrition, drugs, physiology and psychology. Travel is dealt with in this section, but in contrast with the rest of the book is without any specific advice on travel for the sportsman. There is little on jet lag and nothing on the dehydrating effects of air travel. The environment is the general theme of the fourth section, with some useful reviews. Finally, special groups of participants are considered. One expects to see chapters dealing with exercise and pregnancy, children and women in sport, but this book also devotes a chapter to the male genitourinary system!

The multi-author make-up has been well-managed by the editor to produce a clearly written, well-balanced textbook with little repetition. There are plenty of diagrams and illustrations with ample references from each chapter. The book uses good paper, and has been put together strongly enough to tolerate the travelling that some of my books have not withstood.

This really is an excellent book which should be a required acquisition for anyone with an interest in the wider field of sports medicine. Go out and buy it!

R. G. Hackney FRCS

Physical Rehabilitation of the Injured Athlete

J. R. Andrews and G. L. Harrelson, eds.

Philadelphia, USA: W. B. Saunders, 1991, 547 pp, ISBN 0 7216 2689 0, £39.50

This up-to-date book, edited by an orthopaedic surgeon and a US certified athletic trainer, is based on a thorough review of the recent scien-

tific literature pertaining to rehabilitation of the injured athlete. Emphasis is placed on the need to rehabilitate the entire body rather than to treat a single joint. The book brings together an abundance of rehabilitation research upon which to base the complete treatment of the injured athlete, using various protocols and exercise regimens. Common problems of the athlete are addressed. Factors which are important when implementing exercise regimens are considered such as, for example, goniometry, joint mobilization, exercises using the open and closed kinematic chain system, components of rehabilitation and aquatic therapy. The rehabilitation protocols outlined are based on scientific rationale and have proved effective in clinical trials. Each chapter concludes with numerous references.

The chapter on goniometry includes excellent pictures. The table of average 'range of motion' (in degrees), for the upper and lower extremities, is most useful when assessing patients. The chapter on 'range of motion and flexibility' covers various forms of stretching and splinting, proprioceptive neuromuscular facilitation, and joint mobilization techniques for the upper and lower extremities with clear photographs of each technique. The section on the introduction to rehabilitation is comprehensive and covers all aspects of exercise – intensity, duration, frequency, specificity, rhythm, and progression – and describes objective functional tests for the return to sport. The chapter on rehabilitation for the lower and upper extremities contains numerous photographs, clear line drawings, and progression tables, for the various athletic injuries. The chapter on knee rehabilitation presents the entire postsurgical management for anterior and posterior cruciate ligament reconstruction. Protocols for rehabilitation are outlined for the different surgical reconstruction methods, e.g. patella-tendon graft, synthetic ligament reconstruction, medial collateral ligament repairs, medial and lateral meniscectomy, loose body removal, patella femoral syndrome, lateral release etc.

There is a useful chapter on aquatic rehabilitation, including many case histories. Aquatic exercises used in rehabilitation as well as maintenance of cardiovascular endurance are illustrated. Two appendices, one showing exercises for the knee and leg, and the other outlining interval training programmes for throwing, batting, golfing, tennis and running, are useful for the sports physiotherapist.

With its excellent illustrations, the book would be a useful addition to a sports injury clinic primarily because of its practical regimens, many of them using simple equipment. It can also be used as a quick reference text during the treatment of many common sports injuries.

Rose Macdonald BA, MCSP, MCPA, SRP

Pediatric Laboratory Exercise Testing: Clinical Guidelines

Thomas W. Rowland

Champaign, Illinois, USA: Human Kinetics, 1993, 195 pp, 235 × 155 mm, ISBN 0 87322 380 2, £32.00

This book was born out of the Standards for Pediatric Exercise Testing Conference (Scottsdale, Arizona, 1991), where leading paediatric exercise scientists met to develop guidelines for clinical exercise testing of children. The protocols described are theoretically appropriate for the entire paediatric range.

The book is aimed at, to quote the preface, 'professionals in sports medicine, exercise science and pediatrics' – groups who have possibly less in common in Britain than in the USA. As such, and noting the preponderance of clinically based contributors to the book, I was initially concerned that the book would be too clinical for the exercise scientist without a medical background – of whom there are

many, and also too 'high-tech' for practitioners in sports medicine who normally do not have access to the sophisticated laboratory necessary for this sort of work.

My fears were only partly realized, as although much of the book is definitely for the hospital-based clinician with elaborate exercise testing facilities (in particular, pulmonary and cardiology professionals), there is still much to commend it to others. Most of the chapters include a section on the basic physiology which underpins the type of testing addressed in that chapter. Further, exercise testing is placed nicely in context, with explanations of the rationale behind the testing protocols, and not just the protocols themselves. The latest equipment and techniques are discussed in some detail, as is the interpretation of test results. A most welcome facet of the book is its identification of areas where future research is needed.

All in all, the book is more than just a manual for exercise testing – is also an interesting and informative 'read' in its own right as long as one selects carefully and appropriately (however, at £32, it might be considered a rather expensive read). In particular, the book may find a significant readership among staff and students in non-clinical exercise testing laboratories based in universities and colleges.

My one quibble with the book is that, as far as I can ascertain, no input to the conference or the publication was sought from outside the USA. There may be good reasons for this, but given that a great deal of paediatric exercise testing has been conducted elsewhere I feel that the label 'state-of-the-art' might not be fully deserved.

However, this should not detract from what is a good reference book. Sports medicine professionals, whether involved in laboratory research or clinical diagnosis, would do well to have a look at this book, as it does constitute the most up-to-date information in this area.

Chris Riddoch PhD

Sports and Exercise Science, Essays in the History of Sports Medicine

J. W. Berryman and R. J. Park, eds.
Chicago, USA: University of Illinois

Press, 1992, 230 × 150 mm, 372 pp, illustrated

A major rationale for writing or compiling histories of sports medicine is to help justify the whole subject towards codification, to help bring the subject into a medical speciality in its own right. A nation has been defined as a language with an army and navy; a discipline might be defined as a subject with an intrinsic literature and a respectable history. This book helps establish the latter.

Ten essays by historians or physical educationalists offer a scholarly and historical perspective on the growing field of sports medicine and the scientific study of exercise, sports and physical education. The topics range through the exercise tradition from Hippocrates, and the 1870–1920 debate on athleticism and 'athlete's heart', to a history of British and American 19th century training methods. The rationale of the 'eternally wounded woman' being unable to compete in vigorous sports is balanced by the following essay on Bernarr Macfadden, the physical culture reformist, with his 'perfectly developed woman' who could 'play golf all day and dance all night'. Exercise has always attracted pseudoscience, and a chapter includes the history of such charlatanism. The penultimate chapter assesses 'muscular vegetarianism', and the final chapter details the surprisingly long history of anabolic steroids in exercise and sport, dating from the 1940s and possibly even the 1930s.

A scholarly, interesting and often compulsively readable book.

Craig Sharp BVMS, FIBiol

Spinal Manipulation 5th ed.

J. F. Bourdillon, E. A. Day and M. R. Bookhout
Oxford, UK: Butterworth-Heinemann,
1992, 272 pp, 246 × 189 mm, ISBN 0
7506 0576 6, £35.00

This well presented and easy-to-use textbook looks at the examination and treatment of spinal, pelvic and rib joint problems. It examines the role of manual therapy in the care of neuromusculoskeletal problems, particularly from an osteopathic viewpoint.

This expanded edition has a more detailed chapter on anatomy and biomechanics, which approaches the subject in a clear and informative way with some excellent diagrams to support the text. The examination chapter, especially that for the pelvis, make interesting reading, although they are limited to biomechanical implications and omit examination of spinal accessory movements and consideration of neural tension signs. Although the chapters are well illustrated, some of the photographs used to illustrate techniques appear a little dated.

The treatment chapters are well laid out, with clear step-by-step instructions for the manipulations described. Again the chapter dealing with the pelvis is particularly interesting and informative for those regularly treating sportsmen.

The other addition to this fifth edition is an introduction to examination and treatment of muscle imbalance, and a chapter on self treatment, both of which are well researched and give a comprehensive view of evaluation and treatment, with clear photographs of test positions and auto/auto-assisted stretches, which would prove valuable when treating the less supple sportsman.

In general this is an interesting textbook, which gives a good insight into the osteopathic approach to manual treatment. It would be a useful addition for any manipulative therapist, particularly because of its clear approach to pelvic assessment and treatment.

Jan Hampton MCSP, SRP