Book reviews

Key Issues in Musculoskeletal Physiotherapy
Jack Crosbie and Jenny McConnell

This publication is a review of topics related to physiotherapy for musculoskeletal conditions and will be most appropriate to the needs of those who seek to understand in detail the scientific foundations underpinning musculoskeletal therapy. The book is one of a series intended to promote those intellectual processes that the general editors consider critical to clinical management. These include an accurate understanding of the clinical significance of theoretical data that informs practice, and the continuing systematic development of methods of treatment and evaluation.

Chapters are contributed by a variety of authors drawn from medicine and physiotherapy, and each explores some aspect of the anatomical, physiological, and biomechanical mechanisms relevant to musculoskeletal rehabilitation. The topics covered are diverse and include skeletal muscle performance, pain sensitivity, articular adaptation and joint stiffness, muscle disuse atrophy and strength training, and the clinical significance of correct alignment of the body segments.

Unfortunately within the general field of musculoskeletal pathophysiology and therapy the contents do not address a specific theme. This lack of focus may render Key Issues in Musculoskeletal Physiotherapy less popular than other similar publications, although the subjects discussed are, individually, of considerable importance.

Each section is well referenced, as one would expect with this type of work, and the authors consider their material thoroughly. Some sections are more applied than others, such as that on segmental alignment. The authors generally explore the scientific fundamentals of the topic, review the experimental and clinical data and then attempt to distil the significance of this to physiotherapy practice. The style of presentation does, however, tend towards extended discussions unrelied by adequate structure, a weakness inherent in many traditional scientific reviews. The clearest chapters are those on the physiological factors governing skeletal muscle performance, nociception, the treatment of stiff joints and promotion of effective segmental alignment. Certain topics are illustrated well but, in general, greater reliance upon good quality diagrams would benefit the reader.

This book will primarily be of interest to those whose work is concerned with musculoskeletal rehabilitation, research, or the training of therapists, and provides another interpretation of the relevant scientific and clinical literature relating to this subject. Key Issues in Musculoskeletal Physiotherapy is, however, unlikely to differ sufficiently from existing works to be assured of a place on every departmental bookshelf.

Geoffrey C Goats

Taping Techniques: Principles and Practice
Rose Macdonald

This book of taping techniques is a reference work likely to become an indispensable resource for all those concerned with musculoskeletal rehabilitation and the prevention of injury. Functional taping can assist the healing process by supporting and protecting injured structures, thus allowing an earlier return to normal activity. These techniques will be of particular interest to physiotherapists, occupational therapists and physicians practising in sports medicine. Taping techniques can, of course, play an important role in general rehabilitation and Taping Techniques is also recommended to this wider readership.

Taping Techniques is an edited work and the contributors, specialists in physiotherapy, podiatry and nursing, are drawn mainly from the world of sports medicine. The text explains in detail both the purpose and practical application of a wide range of taping procedures. Part 1 is concerned with general issues that include the history of taping, an introduction to foot biomechanics and therapy, and a review of the taping literature. Part 2 is, in essence, a regional atlas of taping techniques appropriate to the ankle, Achilles tendon, foot, knee, shoulder girdle, elbow, hand and wrist. There is also additional material on spicas and basic first aid.

The style of writing is, in general, clear and concise. The introductory and review sections are discursive but the majority of the information is organized as highly structured ‘notes’ accompanied by informative line diagrams. This method of presentation will encourage practitioners to use the book as a clinical manual to be consulted when the need arises or as an aid to teaching.

A methodology section is devoted to each particular region of the body. Taping techniques are described and illustrated individually, and related to the common pathological conditions that affect specific anatomical structures. The text lists the indications and contraindications for each procedure, and the materials required during an application. There are also full details concerning the function of each technique, optimum positioning of the patient during treatment and the practical methodology itself. Concluding remarks concern those functional checks that allow one to ensure that the technique has been used effectively and gives details of any practical tips that the author has discovered through experience. The book contains both an index and a glossary.

For those practising in sports medicine, whether training or qualified, or working in other fields of physical rehabilitation and injury prevention, this book provides a well structured, easy to use and comprehensive practical guide to taping techniques. As a work of reference it is to be recommended warmly.

Geoffrey C Goats

Skeletal Muscle in Health and Disease: A textbook of muscle physiology
David A Jones and Joan M Round
Manchester, UK: Manchester University Press, 1994, 221 pp. ISBN 0 7190 3163 X, £29.95; 0 7190 3164 8, £9.95

It may be difficult for many clinicians to keep up with the rapid developments in muscle physiology and be able to relate them to occasional clinical problems. This small 221 page book is clearly written, well organized and graphically illustrated. Its early chapters review muscle physiology including structure, innovation and electrical activation. The mechanism of force generation is described and the chemistry and age-related changes reviewed. Training mechanisms for both power and endurance have a chapter each
and the clinician then comes to the key chapters on fatigue, muscle damage and pain, with a final review of the changes occurring in muscle diseases.

This text is based on undergraduate and postgraduate courses and will be of interest to scientists and physiologists as well as clinicians.

I have found this book both fascinating and useful, but part of the fascination is that some of our practical sports medicine problems, such as severe post-exertional muscle pain, are not yet fully explicable. This book encourages both dipping and further study in pursuit of clinical answers and is highly recommended.

Peter Sperryn

**Nutritional Needs of Athletes**

Fred Brouns


Fred Brouns has written an excellent scientific overview of the relationship between nutrition and sporting performance. Beginning with a general introduction to the subject, Brouns gently leads the reader through the nutritional aspects, in relation to sport, of macronutrients (carbohydrate, fat, protein), micronutrients (minerals, trace elements, vitamins), fluids and electrolytes, and nutritional ergogenic aids. The book concludes with a summary chapter and a brief outline of metabolism for those who are a little rusty on their metabolic pathways.

The manuscript is based on a large number of recent scientific reviews and publications (numbering 216 and including references up to 1992) which have appeared in peer reviewed scientific journals. As Brouns states in his preface: “This means that these publications have generally survived the criticisms of reviewers and that the interpretations are in line with existing scientific consensus”.

Comments and statements about such controversial topics as vitamin supplementation, the use of bee pollen, L-carnitine or branch chain amino acids as ergogenic aids, or the composition of oral rehydration beverages for sport are all therefore backed up by worthy references. This is one of the book’s great strengths.

Another strength is the “readability” of the book. So many scientific texts can be dry and hard work but Brouns has managed to keep the text light yet informative, even bringing humour to the book with well selected photographs, though the quality of the black and white photography is not of a very high standard.

The wide audience of athletes looking for a book that will tell them what to eat and drink, and when, may be frustrated by the lack of such information here. This is, however, an excellent book for those who want to know the theory behind the practice of sports nutrition. It will therefore have greatest appeal to coaches, sports scientists and those involved in sports medicine.

Jane Griffin