Endurance in sport
R. J. Shephard and P.-O. Astrand
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This volume is another comprehensive and authoritative publication for the
Encyclopaedia of Sports Medicine, the result of collaboration between the
IOC Medical Commission and the International Federation of Sports
Medicine. The editors present a well organized total of 57 contributions,
grouped into seven different sections, covering many aspects of aerobic
endurance and its application to sport. The first section contains semantic
and physiological definitions and notes that the lengths both of competition
and of training determine whether an event can be classified as ‘endurance’. The second section, entitled ‘General Scientific Considerations’ consists of

15 contributions on a variety of endurance-related topics, such as cellular
metabolism, and cardiovascular and pulmonary functions, together with
aspects of psychology as well as genetic determinants of endurance. The third section contains ten papers under the general title ‘Measurements of
Endurance’. This forms an excellent example of the multidisciplinary
approach to assessing and monitoring endurance in man. Sections four and
five are composed of ten contributions which discuss principles of diet,
psychology, overtraining, and prevention of injuries in endurance athletes,
together with endurance training in specific populations such as children
and pregnant women. The ten articles of Section six examine clinical aspects
of endurance training including problems of high altitude, effects of
endurance exercise on the immune response, and cardiac problems in endur-
ance sports. The final section, also with ten articles, is entitled ‘Specific
Issues in Individual Sports’. In this section, swimming, canoeing, cycling,
rowing and other sports are discussed physiologically and, in some cases,
training advice is provided. As a whole, this book will prove most valuable to sports scientists and their
students, to sports doctors, and also to coaches and the more enthusiastic
and knowledgeable competitors. Finally, each of the sections is preceded by
reproductions of athletic figures from Greek vases, wearing anachronistic
and historically inaccurate swimming-type briefs. For the most part, the
Greek athletes competed naked!

Y. Koutedakis MA, PhD

Clinical Sports Medicine
W. A. Grana and A. Kalenak, eds.
527 pp, illustrated. 1991. Philadelphia,
USA: W. B. Saunders. £39.50

The stated aim of this text is to
produce a comprehensive textbook
valued as a reference for both clini-
cians and scientists at all levels of
expertise – not an easy task. The
editors are both orthopaedic surgeons,
but have included a wide range of
disciplines covered by the 50 authors.
The 527 pages are divided into five
parts: sports science, general medical
problems, rehabilitation of injury,
orthotic management and sports in-
juries.

Sports science is covered in just 77
pages, with chapters on exercise phy-
siology, metabolism, nutrition and
exercise testing. Surprisingly, also in-
cluded is the female athlete and
psychology. The chapter on exercise
testing and prescription is worth read-
ing but generally the material pre-
ented is fairly superficial. Given that,
the detailed descriptions of the Krebs
cycle and ATP production in the
metabolism chapter seem out of place.

General medical problems also in-
clude an extensive injuries section.
There is a useful comprehensive de-
scription of on-field management of
injuries, and more on the female
athlete and psychology.

The section on rehabilitation of
injury, gives good practical advice for
the sports physician. However, no
references are given to back up claims
for the effectiveness of therapeutic
modalities, and the authors do not
appear to have read the work of Mary
Dyson.

I would have liked greater detail
from the section dealing with orthotic
management of injury, particularly
with regard to knee orthoses and foot
problems.

The largest part of the book is
devoted to sports injuries. Special
sections are devoted to running, chil-
dren and the disabled. The regions are
reasonably well attended to. There are
plenty of black-and-white illustrations
and radiographs.

I do not think that Clinical Sports
Medicine can be described as compre-
hensive. The book is largely devoted
to injuries, despite hiding head,
ophthalmic, face and neck injuries in
the general medical problems section!

The sports science is rather light-
weight, while overtraining, travel and
drugs are not mentioned at all. The
book has some good parts, and may be
useful for a doctor preparing for a
diploma, but for reference it would be
better to look elsewhere.

R. G. Hackney, FRCS, Dip Sports
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The Academy Papers – New
Possibilities, New Paradigms
American Academy of Physical Educa-
tion Papers No 24
J. Park and H. M. Eckert. Champaign,

The American Academy of Physical
Education publishes a volume of col-
lected papers every year, sometimes a
general collection as here, sometimes
on specific topics such as Physical
Activity and Ageing (Vol 22), or
Exercise and Health (Vol 17). This
collection of 19 papers is of only per-
ipheral interest to most BASM
members unless they have a specific
interest in physical education, as this
volume is primarily concerned with
the education debate within the pro-
ession. However, there are some
contributions of general interest, for
example R. K. Dishman on ‘The failure
of sport psychology in the exercise and
sports sciences’ – not exactly a title
one might have expected to find coming
from America! ‘An ecological approach
to training’ by physiologist
Christine Wells and M. Gilman,
‘Mechanisms for making an interdisci-
plinary doctoral programme in exer-
cise science work’ by D. M. Landers,
and ‘Studying human movement’ by J.
R. Thomas are stimulating and in-
teresting topics in the context of BASM
readership.

For most of us, this would not be a
book to buy, but it could well be one to
look into, especially for those of us in
education.

Craig Sharp PhD, MRCVS