

The weather conditions are critical and affect the work load. This year's heat and humidity made the event difficult for many people. The aid stations ran out of water as this year the front runners drank freely, depriving the slower runners who probably needed it more. Advice to assembled runners waiting for the start given over the PA system is effective in making the

runners aware of the ambient conditions. We ask all runners with a pre-existing medical condition to mark their running number with an orange disc and write their condition and current therapy on the reverse. This works well although this group of runners is so sensible that we have only had to treat one of their number in 4 years!

### BOOK REVIEW

**Title:** ADAPTATION, STRESS AND PROPHYLAXIS  
**Author:** Felix Z. Meerson, 1984  
**Publisher:** Springer-Verlag (Berlin)  
 Price: DM 118 or \$45.80 329 pages, 87 figures, 61 tables, 602 references ISBN 3-540-12363-6

This book deals with one of the fundamental problems in biology and medicine, the problem of adaptation of an organism to its environment. Although the text is not specifically related to 'sports medicine', it contains relevant information for the sports physiologist, psychologist and medical practitioner.

The mechanism is described by which a non-adapted organism, lacking resistance to a given factor, is transformed into an adapted and resistant organism, whether pathological or physiological. There is an abundance of original and cited research to substantiate current theory. On a molecular basis, it is shown that enhanced function activates the genetic apparatus (nucleic acid synthesis) of cells in systems involved in the adaptive response. This results in a selective increase in structures governing cell function.

Mechanisms of adaptation and reversibility of adaptation to such factors as high altitude hypoxia, physical load, complicated environmental situations, and painful stressful situations are also described. It is suggested that the adaptive response to hypoxia may serve as a preventive factor for certain circulatory diseases such as hypertension and hyperlipidaemia. The author even recommends the use of an altitude chamber to reduce the incidence of ischaemic heart damage.

The progression from an immediate adaptive response into a gradual pathogenesis is also described fully. The damage resulting from stress related diseases — ulcerous lesions of the stomach, ischaemic heart disease and tumours — is also considered. There is also a section describing how the organism responds by urgent and long term compensatory adaptation when injury occurs.

The latter section of the book concentrates on research involving the experimental prevention of stress induced damage by natural and synthetic chemical substances.

The book is reasonably well illustrated with some excellent flow diagrams. The content assumes a knowledge that is more appropriate for postgraduate than for undergraduate study.

Roger G. Eston

### BOOK REVIEW

**Title:** ATHLETIC ABILITY AND THE ANATOMY OF MOTION  
**Author:** R. Wirhed, 1984  
**Publisher:** Wolfe Medical: London  
 Price: £9.95

About three fifths of this 135 page book is devoted to musculo-skeletal anatomy, about one fifth to strengthening and mobilising exercise and training and one fifth to basic mechanics. The material is presented efficiently and simply and the text is amply illustrated by line drawings and anatomical sketches. There is neither index nor appendix, normally seen as essential in any serious textbooks, but tables of origins, insertions and actions of muscles together with drawings of bones marked with the areas of muscular attachments are gathered together in the last few pages. The book should prove helpful to the non-professional physical activity leader or to the biologically unsophisticated freshman in physical education for it seeks to provide an integrated understanding of the functional basis of athletic activity. However, although physical education undergraduates may initially profit from reading the book they are unlikely to be sufficiently stretched by its treatment to warrant its adoption as a course reference.

J. Atha