

**BOOK REVIEW****MOUNTAIN MEDICINE (A CLINICAL STUDY OF COLD AND HIGH ALTITUDE)**

By Michael WARD

Published: Crosby, Lockwood, Staples Limited, London 1975. £10.00

Michael Ward has a justly earned reputation both as a mountaineer and as a surgeon, so this book on a clinical study of cold and high altitude raises expectations of an authoritative work based on a wealth of personal experience. In the event the expectations are fully realised, for here is a book which is both a comprehensive review of mountain medicine and yet is written with such clarity of style that it can be readily understood and enjoyed both by the non-medical mountaineer and by the low altitude doctor.

The book starts with a fascinating review of the history of mountain illness and adaptations stretching back to Plutarch's description of the vicissitudes of Alexander crossing into India. There then follow fifteen chapters on the normal physiology at high altitude, four of which are devoted to respiration. The physical science basis of many of the effects of reduced barometric pressure and reduced ambient temperature are well integrated with the physiology and the overall cover of metabolism, respiration and circulation responses is more comprehensive and also more accurate than is to be found in most large physiology textbooks.

The devotion of almost half of a book purporting to be a clinical study to the normal physiology may appear to indicate disproportionate emphasis on the basic sciences, but the reverse is the case. An understanding of the diseases of high altitude and cold and of their prevention and management is dependent on a firm basic knowledge of normal physiology and the manner in which it is modified by the environment. The information given on rates of energy expenditure, levels of oxygen consumption, radiant heat gain and chill effects of wind are vital knowledge to anyone concerned with the planning or supervision of mountain activities, from the elementary stages of hill walking with novices to the most advanced level of expeditions to the highest peaks in the world. As the author points out deaths, due to environmental factors can occur as readily in the Peak district, the Lakes or the Cairngorms as in the high Andes, the Karokoram or the Himalayas.

The remaining thirteen chapters are concerned with the illnesses and disabilities of altitude and cold. These start with a consideration of adaptation and deterioration at altitude and progress through mountain sickness and Mongés disease to high altitude pulmonary oedema, cold injury and thrombosis. The Chapter on Mongés disease is of particular interest in that many people are still unaware of the occurrence of altitude diseases even among those born at altitude, indeed there is a tendency to regard local guides and porters in a similar light to the expedition doctor: immune from all illness, particularly those disorders associated with the environment. The final chapters on the psychological effects of altitude and cold and of the basic personality types found among mountaineers is a very important contribution to the book, for too often these factors are not considered adequately at the planning stage: under the conditions of environmental stress personality problems can become of major importance and the effects of lack of concentration, foresight and lack of critical judgement may effect the ability of the leaders to deal with the problem.

Overall this is a most enjoyable and instructive book and one that should be strongly recommended to all who have a love of the high mountains. It has a fund of information gathered both from laboratories and from expeditions, much of it presented in the form of readily interpreted tables or graphs.

The only deterrent to recommending all mountaineers and doctors interested in mountain medicine to go out and immediately purchase a copy is the rather high price of £10.00.

**D. E. M. Taylor**