

What does surprise me is that your journal has devoted five pages to such a straightforward matter.

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**AUTHOR'S REPLY** We thank Dr France for his lesson in basic physics but we fear he has missed the main point of our paper. The effects of added weight on oxygen consumption ( $\dot{V}O_2$ ) and ventilation ( $\dot{V}E$ ) during exercise against gravity are, of course, predictable in *qualitative* terms. Our study was, however, performed to assess *quantitatively* the impact of a modest acute increase in weight on the exercise capacity of patients with varying severity of airways obstruction. The metabolic and ventilatory measurements were necessary not, as Dr France implies, to restate the obvious, but to show that the maximum  $\dot{V}E$  and  $\dot{V}O_2$  achieved during weighted and unweighted exercise were similar. The conclusions of the study would have been invalid if this were not the case.

The findings of the study are potentially relevant to large numbers of patients: they suggest that modest weight reduction may be advantageous even to patients who are only moderately overweight. In addition, the results are relevant to the inevitable additional weight imposed on such patients when portable oxygen devices are prescribed. We make no apology for reporting such a "straightforward" study.

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## BOOK REVIEWS

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**High Altitude Medicine and Physiology.** M Ward, JS Milledge, JB West (Pp 515; £50.) Andover: Routledge, Chapman and Hall, 1989. ISBN 0 412 29010 3.

This is a fine book, which I believe anyone interested in respiratory physiology or in climbing high mountains will wish to read and own. The authors are acknowledged experts who have not only thought seriously about the problems of high altitude medicine and physiology but have also worked and carried out experiments in high places in the field under extraordinary conditions. All three were members of the famous "Silver Hut" Expedition in the early 1960s to the Everest area and continued to be active and interested in high altitude problems. Though the book's main strength is in the chapters on respiratory physiology and the clinical problems of mountain sickness and its complications, the coverage is more comprehensive, with chapters on nutrition, endocrine and renal problems, and thermal balance and its disorders. There is a chapter on clinical lessons for patients with lung disease living at sea level. The final chapters deal with more practical problems, such as fitness for altitude, accident and emergencies, and even anaesthesia at altitude (by John Nunn). I particularly enjoyed the historical background in the first two chapters and the

historical introduction of several other sections—perhaps a hint of a volume devoted to these issues alone by one or more of the authors in the future. As an enthusiastic hill walker at lower levels in Scotland, I started to review this book on a walking holiday in Austria at an altitude where many of the problems described are just beginning. I am tempted to go even higher, and recommend this book to all with such intentions.—MFS.

**Respiratory Function in Disease.** 3rd ed. D V Bates. (Pp 558; £31.) Philadelphia: Saunders, 1989. ISBN 0 7216 1592 9.

The first book with this title—by J C Meakins and H W Davies of Edinburgh—was published in 1925 and listed 404 references. The first edition of the present book, published in 1961, was written by D V Bates and Ronald V Christie (a pupil of Meakins) and listed 3834 references. The authors and contributors came mostly from Montreal. This new edition, dedicated to Christie's memory, lists 5418 new references, and the author and many of the contributors are based in Vancouver. These books exemplify the way in which during the last 60 years physiological principles have illuminated respiratory disease, and fully justify Haldane's statement that "Today's physiology is tomorrow's medicine." Since the second edition there has been a change of emphasis, reflecting both the increasing interest in cellular processes in the lung and the wider application of established knowledge of pulmonary function, particularly to such subjects as occupational lung disease, sarcoidosis, and diffuse interstitial fibrosis. The book undoubtedly succeeds in its aim of aiding physicians to raise their interpretation of pulmonary function tests above a superficial level by providing and reviewing the detailed knowledge which they need. Readers familiar with the earlier editions will find that the detailed case studies, in which clinical, radiological, and functional findings were correlated, and some of the detailed descriptions of techniques, such as measurement of diffusing capacity, have not been carried forward to the new edition; but the profusion of references remains one of the most valuable features of the book. It will be welcomed by all whose work includes interpretation of the results of pulmonary function tests, and should form a part of the bench library in pulmonary function laboratories. Future editions will be needed and from the westward progress of its predecessors one may guess that the next will come from the eastern shore of the Pacific!—GJRMCH

**A Colour Atlas of Asthma** G M Cochrane, P J Rees. (Pp 136; £30.) London: Wolfe Medical, 1989. ISBN 0 7234 1529 3.

This book follows the general format and style of other Wolfe colour atlases. The text is kept to a minimum and is illustrated with just over 300 photographs and diagrams. The authors give a good overview of asthma, dealing in the main with clinical aspects of the disease. Do not expect to find chapters on inflammatory mediators here. Topics covered range from epidemiology and physiology to the treatment of childhood and adult asthma. The recognition of worsening asthma, the use of the peak flow meter, and self treatment regimens are given ample space. There are useful chapters with sugges-

ted algorithms for the treatment of chronic and severe acute asthma. Agents responsible for occupational asthma are also listed, along with the occupations carrying risk. Some terms are used without explanation and this may be confusing for the reader coming to asthma for the first time. The text is not referenced. The book will therefore be useful for the doctor who already has some understanding of asthma. It will then stimulate future progress in the delivery of care to the patient. In summary, the book uses pictures and diagrams more than any other text on asthma. It deals with clinical aspects of the disease and the problems encountered in treating patients. The busy doctor will be able to dip into the book and extract information quickly.—MJW

**A Colour Atlas of Cardiac Surgery: Congenital Heart Disease** (pp 192); **Acquired Heart Disease** (pp 165). James L. Monro, Gerald Shore. (£35 each.) London: Wolfe Medical, 1989. ISBN 0 7234 1617 6 and 0 7234 1616 8.

Both these books are direct reissues in soft back format of two titles from the series of Wolfe Surgical Atlases that were published initially in 1982 and 1984. The new format has the advantage of making the books cheaper and therefore potentially more accessible to those at whom they are principally aimed (junior doctors, theatre nurses, and medical students); but the interval of several years since publication and the absence of any revision have meant that some areas of current practice receive little or no mention. Examples of this are the use of the internal mammary artery in coronary bypass graft procedures, the increasingly widespread preference for arterial repair of transposition of the great arteries in the neonatal period, and the management of pulmonary valve stenosis by balloon dilatation. Despite these limitations, the atlases still cover a wide range of standard procedures in adult and paediatric practice, which are illustrated with photographs of a uniformly high quality. The accompanying text is lucid and explicit and, although allowance has to be made for individual surgical practice, both these books would provide the trainee surgeon or scrub nurse with valuable preparatory information before engaging in a surgical procedure. In addition, the excellent use of intraoperative photography provides a useful substrate for teaching outside the operating theatre. Given the aims and purposes of the book, however, it is unfortunate that some fundamental areas of cardiac surgical practice are not given better coverage. Although surgical approaches and cannulation techniques are covered, there is little attempt to describe the basic equipment or techniques of cardiopulmonary bypass, which is obviously an essential component of most cardiac surgical procedures. In addition, the area of myocardial protection, including topical and systemic hypothermia and the use of cardioplegia, receives little explanatory mention; the illustrations of cardioplegia administration are placed somewhat inappropriately before the chapter on the institution of cardiopulmonary bypass. Despite these limitations, both atlases provide an unparalleled visual step by step account of most routine cardiac surgical operations, and consequently provide a valuable training manual for all those interested in this branch of surgery.—MPGJ