BOOK REVIEWS

If you wish to order, or require further information regarding the titles reviewed here, please write or telephone the BMJ Bookshop, PO Box 295, London WC1H 9TE. Tel: 071 383 6244. Fax: 071 383 6662. Books are supplied post free in the UK and for British Forces Posted Overseas addresses. Overseas customers should add 15% for postage and packing. Payment can be made by cheque in sterling drawn on a UK bank, or by credit card (MasterCard, VISA, or American Express) stating card number, expiry date, and your full name. (The price and availability are occasionally subject to revision by the Publishers.)

The Physiology and Medicine of Diving, 4th edition. Edited by PB BENNETT, DH ELLIOTT. (Pp 613; price £70). 1993. London: Harcourt and Brace. ISBN 070 20 1589X.

The fourth edition of this outstanding book confirms its reputation as the leading text on diving medicine. All of its 22 contributors, from Britain, the USA, Australia, New Zealand, Canada, and France are recognised internationally as experts in their fields, and they all write clearly, usually in scholarly depth with abundant references, making the book a substantial resource of manageable size.

The opening chapters describe the equipment and procedures of compressed air work, SCUBA and commercial diving, the assessment of "fitness to dive" and the legislation to which compressed air workers, divers, and their medical examiners are subject. The next few chapters discuss underwater accidents and the physiological bases of the main diving disorders. The bulky remainder gives thoughtful practical advice on the aetiology, prevention, diagnosis, and management of thermal and decompression illnesses.

Given that the book is very worthwhile, there is some unevenness of treatment that ought to be ironed out in the next edition. For amusement I constructed three histograms based on the bibliographies ending each chapter. They displayed the average number of references per page of text, the percentage of self-references and the percentage of references more recent than the last edition. The results showed considerable variations. Average references per page of text varied from one to 13, self-references from 0 to 42% and recent references from two to 76%. Clearly there are many reasons for this, some subtle and some not so. As examples, the chapters on procedures and equipment are the least referenced, chapters on *Inert Gas Narcosis* and the *High Pressure Nervous Syndrome* have exhaustive but dated bibliographies with high levels of self-reference, whereas the chapters on *Fitness to Dive* and *The Long Term Health Effects of Diving* have 67% and 76% of references from 1983 onwards. In part these reflect the shifts in the emphasis of research away from

narcosis and the nervous syndrome to fitness and long term effects, currently of much interest. Nevertheless, it would have been good to see for example the outstanding recent work of Lieb and Franks on the site of action of inhaled anaesthetic agents referred to. These are points the editors may wish to consider when they or their successors tackle the next update of this valuable work.

DAVID DENISON

The Physician's Guide to Eye Care. By J D TROBE (Pp 188; price £40.) 1993. 655 Beach Street, PO Box 7424, San Francisco: American Academy of Ophthalmology. ISBN 1-56055-073-2.

This book is unusual in that it is intended neither to be a specialist volume for ophthalmologists, nor is it aimed at the medical student. It is rather a practical manual for general clinicians such as GPs, casualty officers, and other providers of primary care, who see eye problems from time to time among a broad range of other conditions. Its organisation is also unusual, in that it does not follow the conventional disease-by-structure pattern. Instead, it is organised according to the most common eye problems encountered by general clinicians.

Although it is a soft cover volume, the book exemplifies American medical publishing at its best. Minor differences between American and British usage and practice present no great difficulty. The book is replete with excellent colour photographs of many conditions that affect both the front of the eye and the retina. The large scale line drawings are clear and well labelled, and they convey their point instantly. A glossy white paper is used that enables a very high standard of reproduction to be attained.

The page layout is uncluttered, with succinct, to the point text. When technical terms are used that are likely to tax the memory of the generalist, Trobe does not hesitate to add an explanation in parenthesis, as for hyphaema (blood in the anterior chamber).

Clear, brief guidance is offered on many conditions and the right balance is struck with an adequate, but not excessive, level of caution. When dealing with a foreign body embedded in the cornea, for example, the clinician is advised first to try rolling a moistened cotton-tip applicator across the corneal surface: if this fails, it is suggested that an attempt then be made to nudge the foreign body out with the side of a 22 or 25 swg needle, but only by someone with experience with this manoeuvre.

The advice about when to refer is particularly helpful. Ophthalmic traumata, for example, are categorised according to whether they should be referred within 48 hours, within 24 hours, immediately, or immediately after on site treatment (as for chemical burns).

The book contains a useful section on common questions raised by patients, in which suggested answers are provided. As well as general vision, eye diseases and conditions, the subjects covered also include contact lenses and spectacles.

For the question "What is a 'lazy' eye and

how can I tell if my child has one?" the following answer is suggested: "A lazy eye is one that has reduced vision, usually arising from either strabismus (crossed eyes) or a large refractive error. Known as 'amblyopia' the condition is detected by the physician who measures visual acuity. In children under 3 years of age, in whom visual acuity is difficult to assess, the physician may make a presumptive diagnosis of amblyopia based on whether the child has a wandering eye or objects to having one eye covered." Suggested answers such as this offer helpful frameworks for the simple explanations required.

G E DIGGLE

Toxic Substances in the Environment. By B MAGNUS FRANCIS (Pp 360, £41.50). 1994. New York: Wiley Interscience. ISBN 0-471-50781-4.

This book was intended to provide information about toxic substances in the environment and about the hazards they may cause, and covers a wide range of topics related both to ecosystems and human health. The cover suggests that it is basic enough to serve as an advanced undergraduate introduction to environmental toxicology, but, at the same time, it provides accurate scientific detail. The cover goes even further and predicts that this volume was destined to become "the environmental toxicological bible of future generations". The book has in fact a number of positive features: firstly, it attempts to outline both ecological and health related aspects of environmental toxicology. Secondly, it is very illustrative, with several interesting case studies to highlight relevant issues. Finally, it covers subjects of environmental health policy, and considers both economic and social aspects.

The weaknesses of the book result mainly from its (too) broad scope. As a result, it is "choosy" on the subjects or issues covered and neglects important parts of many of them. For example, in dealing with air pollution, effects on ecosystems are well covered, whereas human health effects are marginally touched upon, with emphasis on radioactive pollutants. Other environmental media are dealt with similarly. Some subjects on environmental media are not dealt with at all—for example, food and drinking water.

The book shows a remarkable structure in that after the discussion of toxic substances in some environmental media (with emphasis on ecological effects and with health effects marginally mentioned) effects of chemicals on human health are dealt with in a classical general manner independent of various environmental media. A number of toxicological endpoints are discussed, with emphasis on testing procedures, but specific aspects of environmental toxicology (multi-media exposure, partitioning between media, exposure to mixtures) are not adequately covered. Apart from that, several toxic endpoints particularly in environmental toxicology—for example, immunotoxicity, organ-directed toxicity) are not covered. In fact, textbooks on general toxicology cover these issues in a broader and more comprehensive way.

Some inaccuracies have found their way