BOOK REVIEWS

Book review editor: R L Maynard

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This indigestible book is packed with scientific papers covering topics as diverse as physiology, experimental psychology, ergonomics, and sociology, under the theme that of aging. This is the proceedings of the 1993 European Symposium on Work and Aging, with a few additional contributions.

The commentaries interspersed with the papers provide interesting insight into the lunacy of international business practice that "lays off" by early retirement or redundancy, increasing numbers of workers raising, by displacing costs on to the State. This is in spite of steadily falling numbers of new entrants into work. The demographic changes say it all, as the average age of the European population continues to rise.

The papers taken individually are of interest, but the book as a whole is confusing to the reader, and it has clearly been difficult for the editors to maintain a coherent approach. There is little of immediate relevance to the occupational physician, although the paper on health effects of shift work on the older workers is of some interest. (Pp 417 291-379). London: the essay on motivational and cultural factors by M J Schabracq, who is an organisational psychologist.

This book has the stated intention of stimulating discussion within a wide audience, which includes occupational health practitioners. It fails in its purpose by being too diffuse, but is nevertheless relevant reading for those interested in assessing and maintaining the personnel and political policies currently in place across Europe. It is of little comfort that the United Kingdom is not alone in its current pattern of pensioning off the older worker.

S B DIGGLE


This multidisciplinary, multiauthor book of approaching four hundred pages examines the nervous system as it is affected by exposure to toxins and ergonomic stressors at work. It considers epidemiology, exposure measurement, dysfunction, psychosocial, neuropsychiatric disorders, outcomes, rehabilitation, and medico-legal consequences. The "centre of gravity" is in the United States, with 13 of the 15 chapters having American authors.

The authors start from the disciplines of neurology and neurotoxicology, and focus onto the "rapidly developing specialty of occupational neurology". Thus they bring together into one book chemical and physical stressors affecting the nervous system. The occupational physician from the United Kingdom, used to chemical toxicology and ergonomics as separate subjects may find the 9th chapter on psychosocial prerequisites interesting.

The book can be divided structurally into two main sections. The first (chapters 1 to 9) looks at the effects of chemicals; the second (chapters 10 to 11) on physical forces on the nervous system. There is an interspersed third small section (chapter 10) on medico-legal issues.

As should be expected, this essentially American book uses United States references, occupational health standards, and examples. OSHA, NIOSH, ACGIH, and TLVs are used throughout with a brief mention of German MAK values.

The first comprehensive book with epidemiology in the neurological context (chapter 1) with a description of the basic elements needed to relate exposure to nervous tissue injury. Methods are then developed to present chemical results and statistics. The difficulties in diagnosis of, for instance, a diffuse chemically induced encephalopathy are not shirked, and various methods of avoiding pitfalls are illustrated.

Retrospective and prospective case-control studies are encompassed so that the reader may acquire a firm understanding of modern epidemiological practice.

Assessment of exposure (chap. 2) and the continuum from exposure to disease, provide an overview of occupational hygiene practice. Next comes biological monitoring and clinical disease (chapter 3) covering somatosensory, pulmonary, and gas exposure summaries of named chemicals and their biological indicators.

Neurological examination (chapter 4) evaluates ways of determining mental status as well as quantitative methods of neurobiological testing, with brief descriptions of the various ancillary tests in current use. Neuropsychological tests used in assessments are reviewed (chapter 5) and the neuropsychiatric consequences of exposure to neurotoxins (chapter 6). The overview of psychosis, dementia, depression, anxiety, and post-traumatic stress disorder in relation to occupation provides a useful synopsis for the occupational doctor.

The visual system (chapter 7) is well covered, with a list of neurotoxins and their spectral effects. Brain tumours associated with occupational chemical exposure (chapter 8), and a literature review of substances with an excess risk are tabulated and summarised. Chapter 9 provides an alphabetical list of neurotoxic compounds, human exposure, and clinical manifestations.

Chapter 11 by Buckley from the Robens Institute in the United Kingdom begins the second main section (chapters 11–15). The mechanical effects on the extremities, nerve entrapment, spinal biomechanics, and industrial low back pain are examined, followed by occupational rehabilitation. These chapters are well illustrated with technical and mechanical formulae aimed essentially at prevention and advice for the occupational physician.

Chapter 10 "Interaction of Medical and Legal Systems" is entirely American and examples of United States law are quoted from courts in various states. A number of general principles apply universally, but American details have limited value to the United Kingdom reader.

Inevitably with many writers, style varies, but the editor has done well in pulling it all together. The various authors themselves have taken care to make what could be turgid reading as interesting as possible, with the insertion of practical examples that liven the text, and focus the mind on the typical everyday problems the reader will face.

In future editions, as research progresses, and as evaluation of the many classes of psychiatric disorders relating to toxins and occupation expands, then the section on ergonomics and mechanical effects could well be hived off into a separate volume.

For the occupational physician, particularly working in the chemical industry, this will be a useful new publication that should enhance knowledge, and act as a guide in tackling problems arising from actual and potential workplace exposure. The section on physical agents will have an additional interest, and the book as a whole could be helpful for candidates for the Associate of the Faculty of Occupational Health.

COLIN JUNIPER


This is a fascinating short volume on how to present data to policy makers. The author is a distinguished and experienced public health writer, former Dean of a Medical School. In his later years he became interested in epidemiology and its use in the investigation of the health effects of air pollution. Public decisions deals with five major topics, air pollution, cigarette smoking, asbestos, lead, and electromagnetic fields and their association with health effects. In the first part of the book selected studies are chosen that have been used to show the possible risks. The second part deals with some of the policy issues in relation to these risks. The third part provides cautionary tales of the way in which the public, media, courts, and governments approach the problems of risk assessment.
If you knew zootic acid was a synonym for hydrocyanic acid you should be congratulated, but if you knew the seconxone, Pearlstick, Bronco, Golden Bear, and oxygen cubes are "Gardner" will tell you.

Who should have a copy of this book? Occupational physicians, safety engineers, new products, clinical toxicologists dealing with poisoning by commercial products and those interested in general toxicology should all have ready access to copies. Much of the book cannot be easily found elsewhere and as a first source when dealing with difficult enquiries this book is invaluable. If you need yet more information: an excellent set of addresses of producers of chemicals is included.

R L MAYNARD


This 200 page paperback practical guide is the third in a series of NCRP reports on radiofrequency radiation and is effectively a companion volume to the two that describe quantities, units, and biological effects. Together they encompass a wealth of information on this much discussed subject that is primarily the concern of occupational health and safety practitioners. Interest in the subject has increased recently largely because the media and public have latched on to the notion that electromagnetic fields at the intensities experienced in the home, where close proximity to radiofrequencies lines, might constitute a health hazard. This hypothesis is being explored and, although it is far from being internationally agreed, it has intensified the debate and stimulated scientific interest in the subject to the extent that serious attempts are now being made to measure low intensity electric and magnetic fields in a methodical and reproducible way.

The NCRP guide is prepared by a committee of academic and industrial experts. Being the product of a committee the guide draws on the members' wide experience and includes a broad range of examples of practical situations. Much of the text is in the form of appendices that describe practical aspects of measuring fields associated with specific applications as diverse as electrocautery equipment or marine radar. The 23 sections in the guide are set out very clearly in a uniform way for easy reference.

The NCRP does not claim to be international and readers outside the United States may be put off by constant reference to national organisations, government departments, committees, and regulations, which may be unfamiliar in other countries. Nevertheless, the basic science and the practical methodology is universally. The terms are clearly explained in a glossary and the collaborating organisations are listed in the addendum with great consideration for the reader, although the meaning of some of the acronyms can be found only by searching the text.

Appendix B very usefully gives four detailed examples of exposure determinations and discusses the range of difficulties that might be encountered when measuring fields and when writing a report. Besides the appendices the text is in five sections including an introduction. These sections include basic concepts, approaches for analysing measurement data, instrumentation and techniques, and a brief section on recommendations for further research. Six recommendations are boldly stated in a conclusion that seems to reflect the heartfelt needs of frustrated practitioners.

All in all this well presented book is more than just a guide: it is a minibook textbook, guide, and handbook.

G HOOKER


Work related musculoskeletal disorders (WMSDs) are a significant problem throughout the world. In and within the United Kingdom they represent a major challenge to all those professions concerned with occupational health and safety (Hodgson et al'). Although WMSDs are diseases like mesures, study determines (odds ratios)—together with critical comments. This is followed in chapter 4 by the identification, measurement, and evaluation of risk factors for WMSDs and covers physical demands to cognitive demands, organisational and psychosocial risk factors. The book provides an excellent inventory of measurement tools for evaluating risk. Similarly the importance of health and risk factor surveillance is also emphasised. Additionally analysis and interpretation of data is well presented. The foregoing material is clearly a prerequisite to any attempts at managing solutions (chapter 6). This preventive approach is within an ergonomics framework that emphasises the need to consider the interrelation between various aspects of the work system—that is, organisational structure, people, technology, work tasks, environment.

Managing change, WMSD related training (as an adjunct to the ergonomic approach), and medical management, provide further value in the concluding chapters of this invaluable book. Such an authoritative source should be required reading for occupational medicine and nursing professions and all other professionals in the allied health and safety fields (physiotherapists, ergonomists), also those within the legal professions including some High Court Judges might find this excellent text instructive.

DA STUBBS

Environment Health Risks and Public Policy: Decision Making in Free Societies

Walter W Holland

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