Book reviews

Finger bone and joint injuries. Edited by *Peter Brüser* and *Alain Gilbert*. Pp 300. London, Martin Dunitz, 1999. ISBN: 1-85317-690-7. £65.00.

This multiauthor textbook on the management of fractures and joint injuries in the hand gives a refreshing European perspective. It makes a pleasant change from the standard textbooks from the English-speaking world which most UK surgeons tend to use. There is a tendency to ignore the European literature as, shamefully, we know that we are neither good at speaking nor reading a foreign language. It will encourage more trainees to look at the European literature when researching topics of interest to them.

The book is well produced with excellent reproduction radiographs and diagrams. The chapters are concise and easy to read. Some attempt to give a broad overview of the topic being discussed, others give a more personal view and on occasion simply refer to work that has been undertaken by the author. On the whole, however, the quality of the writing and the content are of a high standard. The book provides an excellent overview of not only acute injuries but also the management of post-traumatic problems and has a good section at the beginning on basic principles and techniques.

I strongly recommend it to any surgeon who is managing acute hand injuries and my copy travels around with me in my briefcase. I believe that it is a book, not only for the library, but for personal ownership. I think that the editors should be congratulated on pulling together such a large topic with such a representative team of surgical experts. I personally hope that it will be a textbook which will be revised and updated every few years.

Rupert Eckersley.

Foot and ankle disorders. Vols 1 to 2. Edited by *Mark S. Myerson*. Pp 1911. London: Harcourt Publishers Ltd. ISBN: 07216-7155-1. £200.00

Mark Myerson has brought together an extensive work on the management of disorders of the foot and ankle covering every aspect of disease at this site. As a multiauthored work it is exceptionally well referenced and up-to-date. It is broken down into logical sections so that orthopaedic surgeons not specifically working in the area of foot and ankle pathology can pick out appropriate parts of general interest. Any foot and ankle surgeon will find it a most useful addition to their library in that it encompasses all aspects of their field with good synopses of natural history and up-to-date guidelines on management.

There is an excellent section on what could be described as the basic science of the foot, covering anatomy, every technique of imaging and kinetics, leading on to orthotics. A large number of other specialists have been brought together contributing on such subjects as vascular disease, plastic surgery and paediatric problems. There is valuable information about dermatological disorders and coloured plates at the front of each volume enhancing the black-and-white entries within the text. These

provide clear, pictorial examples of many conditions and operative observations. Each chapter is set out logically and there are useful guidelines at the end of each section which give the author's preferred method of management for the various conditions discussed.

These volumes will provide core material to the library of any department with trainees working in orthopaedics in the build-up for examinations. Orthopaedic surgeons training in the field of foot and ankle surgery and already established consultants will find much support for their studies into specific conditions. They can be assured that they are reading up-to-date information as a cornerstone for research.

H. P. J. Walsh.

The wrist. Edited by *H. Kirk Watson* and *Jeffrey Weinzweig*. Pp 985. Philadelphia, etc: Lippincott Williams & Wilkins, 2001. ISBN: 0-397-51726-2. \$299.00.

Knowledge of the complex series of joints known as 'the wrist' has increased enormously since the first publication of a book on the subject by Julio Taleisnik. These theoretical advances have stimulated an understanding of conditions which occur in the wrist and promoted wrist surgery as a specialty in its own right. The recent publication of two separate works on the wrist has cemented its position as a joint complex worthy of further study. In this book, 76 chapters are organised into 16 separate sections. The reader is guided by an assembled group of international authors, most of whom are acknowledged experts in the field.

The book begins with a fascinating insight into the evolutionary history of the wrist over the last 400 million years. The initial six chapters form a sound basis for progress into more specific topics. Those on anatomy, kinematics, biomechanics, examination and imaging are all areas of core knowledge for those involved in treatment. Further sections on carpal and distal radial fractures, carpal instability, the distal radio-ulnar joint, ulnar pain, arthritis and rehabilitation provide a complete spectrum of instruction. The final section, including 28 chapters on specific techniques, combines invaluable technical tips with instruction on some of the newer methods such as reconstruction of the scapholunate ligament. The overall layout and quality of imaging and line drawings are outstanding. The use of colour photographs and diagrams is appropriate in some areas, but in others, for example on clinical examination, is somewhat confusing and unclear.

The editors have extended their role in an innovative fashion by providing a 'comments' paragraph at the end of most chapters. These give a personal insight into many of the problems alluded to within the chapter, but must be read with caution by less experienced readers. It is useful to have the editors' personal opinions, but they must be interpreted separately from the core text of each chapter. My own personal favourites within this text are the section on 'ulnar-sided wrist pain' and the chapters on 'extra-articular aetiology of wrist pain', 'lunate revascularisation' and 'reconstruction of secondary carpal problems following distal radius fracture'.

The treatment of problems around the wrist will continue to increase since a growing number of surgeons have already declared this to be an area of special interest to them. The development of wrist replacement, distal ulnar replacement, vascularised pedicle bone grafts and aggressive approaches to fractures of the wrist will continue to expand the remit of the wrist

surgeon. This book can be thoroughly recommended as a coherent, easy-to-read and well-illustrated text on a developing area of hand surgery and traumatology.

Douglas Campbell.

Principles and practice of orthopaedic sports medicine. Edited by William E. Garrett Jr, Kevin P. Speer and Donald T. Kirkendall. Pp 976. Philadelphia, etc: Lippincott Williams & Wilkins, 2000. ISBN: 0-7817-2578-X. \$169.00.

In the UK, sports medicine is still frowned upon by those in mainstream orthopaedics. This is reflected by the fact that, although our own Sport Trauma Association (BOSTA) has been established for some time, it is still struggling to achieve recognition. This book should dispel any doubt that orthopaedic sports medicine has a solid foundation in basic science and true clinical standing. It is essential reading for all surgeons who treat athletes.

The book is part of a three-volume series tracking basic science and clinical practice in the care of athletes. It concentrates on causes, prevention, treatment and the rehabilitation of sports injuries. The three editors, all from North Carolina, have assembled a panel of 107 experts in orthopaedic sports medicine to give a thorough picture of the subspecialty. The 54 chapters are divided into four parts: basic sciences, torso and axial skeleton, upper extremity and lower extremity. The first section is up to date, with all that even an academic sports trauma surgeon needs to appear knowledgeable of the advances in the field.

In the clinical sections, each chapter starts with a short review of the mechanism of injury and of the relevant basic and clinical issues, and progresses to physical examination, diagnostic tests, and options for both non-operative and operative management. Essentially, each section can stand alone as a monograph on its subject, with both current and classic references. On the minus side, I did not quite understand why the chapter on ankle impingement is in the section on the knee and why, despite the involvement of world authorities in foot and ankle surgery, ligament injuries of the ankle are not discussed. The illustrations are generally clear and accurately labelled, although the arthroscopic views would have benefited from colour.

This work very much reflects North American practice: of the 107 contributors, all but five are from the US, with none from the UK.

Nicola Maffulli.

Skeletal function and form: mechanobiology of skeletal development, ageing and regeneration. Edited by D. R. Carter and G. S. Beaupré. Pp 318. Cambridge: Cambridge University Press, 2001. ISBN: 0-521-79000-X. £45.00.

This philosophical work addresses in detail the musculoskeletal system in its anatomical and physiological aspects. The authors quote heavily from D'Arcy Thompson and before him from Charles Darwin, Wilhelm Roux and Julius Wolff. It is an essential book for the library but I suspect that those who have the time to dip into it will quickly become so fascinated with the subject as to require to have a copy of their own. Inevitably, many of the words are long and the studies of both genes and interleukins require a certain amount of basic information if they are to be understood. However, the writing is clear, the style simple and the logic stimulating to anyone who has an interest in the microscopic and macroscopic structure of the skeleton.

The authors describe two periods of life, the embryonic during which growth occurs with differentiation under carefully controlled genetic control, and adulthood in which there is selective hypertrophy and atrophy on the one hand and the process of wear

and replacement on the other. Even before it was possible to tinker with genes, the alterations in form which can be achieved by specific training, both in simple muscle and in intellectual activity, are the basis of athletic training and education.

To read this work requires time because it is a scholarly subject not bearing directly on the day-to-day problems of orthopaedic surgery. However, it becomes clear to the imaginative reader that an appreciation of what Roux describes as "developmental mechanics in the skeletal system" will lead to a better understanding of the inter-relationship between functional development, ageing evolution and histomorphological alteration. It will also lead us to the conclusion that what we implant can be very crude by comparison.

Parallels are drawn in the developmental abnormalities of the hip, for example, the micromechanics of cartilage including its capacity to self-lubricate and regenerate, and how all these manifestations impinge upon gross development and repair. There are many lengthy equations with Greek symbols which will satisfy the mathematician. Readers who wish to skip these, however, will find a stimulating and fascinating essay which is of much greater practical value than they realise until they become absorbed in it. Every centre with pretensions to academic enquiry must have this book on their shelves.

Michael Laurence.

Atlas of pediatric orthopaedic surgery. 3rd edition. Edited by Raymond T. Morrissy and Stuart L. Weinstein. Pp 908. Philadelphia, etc: Lippincott Williams & Wilkins, 2001. ISBN: 0-7817-2095-8. \$225.00.

This is a very good reference work for paediatric orthopaedic surgeons. It is particularly useful to those in training as preparatory reading, before their exposure to the operating theatre. It emphasises very well that children are not simply small adults and that surgical techniques are different.

I have a few minor reservations. In regard to the correction of deformity in osteogenesis imperfecta, it is my practice usually to wait until the relevant bone fractures, and then to use this as an excuse to operate, but I accept that there are instances in which the deformity alone demands correction. Secondly, there is a special place for the use of external fixators for fractures of the femoral shaft in children with severe head injuries. Overall, this is a book to be recommended.

Michael Smith.

Assessment of skeletal maturity and prediction of adult height (TW3 method). 3rd edition. Edited by J. M. Tanner, M. J. R. Healy, H. Goldstein and N. Cameron. Pp 110. London, etc: W. B. Saunders, 2001. ISBN: 0-7020-2511-9. £69.95.

The assessment of skeletal maturity is important to many medical disciplines which involve decisions on treatment. In orthopaedic practice, accurate knowledge is required to decide on the optimum time for operative intervention in, for example, scoliosis. It also allows prediction of the deformity which may result from injury to the growth plate. The approximate timing of epiphyseal appearance and closure has been known since the early days of radiology, but visual scanning of the images is not sufficiently precise or reproducible to allow accurate monitoring of the response to treatment, for example, with growth hormone.

The authors have developed a system of skeletal maturity based on the assessment of bone age derived from the allocation of individual scores to 20 epiphyses in the hand and wrist taken every six months over a period of 12 years. The dedication and the attention to detail required to achieve this can only be

wondered at! The assessment is based on both the presence and alteration in shape of the epiphyses as they develop to maturity, a process which is both predictable, ordered and independent of racial or socio-economic influence. Although there may be some overall retardation of bone age with deprivation, the process of maturation remains ordered, hence the concept of skeletal maturity, rather than just bone age.

The original authors of this book were Tanner, Whitehouse and Healey. The scoring system became known colloquially as the TW method, followed by some modifications, and now, in the third edition, the TW3! There are separate scores for the radius, ulna, metacarpals and phalanges and, independently, the carpals. The centile curve for skeletal maturity, which is the chronological age at which the 50th centile child has the maturity score of the patient, is used to assign a bone age. The maturity scores derived are then compared with charts which give a bone age for the child. This, and therefore skeletal maturity, can be monitored by serial radiographs when needed. Children with endocrine disease, and especially those on growth hormone, require continuous monitoring, and the TW method is now the method of choice for this.

Assessment of bone age by this method is usually performed by radiologists, unless they are lucky enough to have other doctors wishing to do their own! It is a time-consuming, tedious and non-educational task, but nonetheless it is important that it is done carefully, and ideally by the same assessor, to ensure accuracy and reproducibility. This is a bench book but it is essential reading if the concepts of skeletal maturity need to be understood.

Helen Carty.

Atlas of thumb and finger reconstruction. By *Guillermo Loda*. Pp 240. Stuttgart: Georg Thieme Verlag, 1999. ISBN: 3-13-101191-2. SFr 265.00.

This exciting atlas, with excellent photography and hand-drawn illustrations, is a major publication on surgery of the hand. The author describes his lifetime's experience in reconstruction of the thumb and fingers in a very readable manner.

These injuries can present to the surgeon at any time, usually the most inconvenient. Reconstruction is time-consuming and demanding, and the results can be painfully disappointing. Those of us who have spent hours with the operating microscope, only to lose replanted parts, or meet the unhappy patients at follow-up clinics, can only admire the superb results obtained by the author, and thank him for revealing to us the details of his techniques.

With its wealth of anatomical dissections of the vasculature and innervation of the hand, followed by informative biomechanics, the first chapter would immediately captivate anyone interested in hand surgery. Every paragraph presents exciting new tips. Consider just this detail: "The cephalic vein is large and receives very few collateral branches. This allows it to be used as a graft in replantations. In one particular case, we repaired only the dorsal vein of the thumb, which saved the completely amputated hand." Such priceless advice is multiplied throughout the book. The section on the vascular rein technique leaves the reader marvelling at the ingenuity, creativity and brilliance of Dr Loda, not only in pioneering this technique, but also in his clear presentation to the reader. This will, I believe, be a technique of choice in creating a sensate tip to an amputated digit. His results in preserving fine sensation to the amputated digit are much superior to those obtainable by other means in current practice. The sections on replantation and vascularisation, thumb reconstruction, finger and thumb reconstruction and reconstruction of the digital pinch have beautiful illustrations, tables and algorithms and give sound personal advice.

The book is essential for all committed hand surgeons, whether they are involved in hand trauma or not. Needless to say, it must

also be on the reference shelf of the library of all trauma units and available to trauma residents and their teams, both from the orthopaedic and plastic reconstructive specialties, at all hours. I recommend it highly to my surgical colleagues, both senior and junior.

Swee Ang.

Pathological basis of orthopaedic and rheumatic disease: clinical, radiological and pathological correlation. Edited by *N. A. Athanasou*. Pp 385. London: Arnold, 2001. ISBN: 0-340-76382-5. £95.00.

This is a slim but handy textbook of osteoarticular pathology. The information is condensed, to the point, and yet well referenced. There are many images to support the text which illustrate the radiology and histology, but, unfortunately, many are rather small and all are in monochrome. Nevertheless, this text may be complemented by the *Colour atlas of bone, joint and soft tissue pathology* by the same author.

The eight chapters cover: skeletal structure and development; injury and repair; infection; disorders of skeletal development; metabolic and generalised diseases of the skeleton; articular disease; tumours and tumour-like lesions of bone; and tumours and tumour-like lesions of soft tissue. Of particular note is the comprehensive chapter on disorders of skeletal development which incorporates several helpful tables classifying disorders such as chondrodysplasia, osteogenesis imperfecta, and the lysosomal storage diseases. The 165 pages devoted to neoplasms and other tumours are invaluable to surgeons, radiologists and histopathologists who will encounter these entities from time to time. Again, the information is enhanced by clear tables and diagrams depicting the radiological appearances, age of presentation, skeletal location, grading, differential diagnoses of histological features, karyotypic abnormalities, and antigenic profiles. This book will be a useful bench volume for all histopathologists, not just those with an interest in diseases of bone and soft tissue. My reservation is that there is no chapter on autoimmune disorders and, in particular, no coverage of autoimmune muscle disease.

Dominic G. O'Donovan.

Medicolegal reporting in orthopaedic trauma. 3rd edition. Edited by *Michael A. Foy and Phillip S. Fagg*. Pp 541. London, etc: Churchill Livingstone, 2002. ISBN: 0-443-06374-5. £99.95.

Medicolegal practice is totally different from clinical practice, but fitness for the first depends upon substantial experience of the second. The principles are lucidly laid out in the introductory chapter of this book and the recent changes in the law in regard to civil practice Rule 35 are clearly explained by partners from Hempsons, the solicitors to the Medical Defence Union. Many, but not all chapters, have information tables in shades of grey, widely quoted from the major publications on each subject. The material is thoroughly analysed for outcome, principally from the viewpoint of the complainant which, mercifully, not every patient is. This valuable contribution is unevenly balanced, however, in that some parts are fully covered while others, as much of a legal problem as any, are abbreviated. Curiously, for example, two topics with the shortest coverage are those addressing backache and repetitive strain injury! The fact that this is the third edition within ten years indicates that the authors have correctly identified a gap in the market, but also suggests that they have not adequately filled it. I anticipate a fourth edition which may be even larger.

Michael Laurence.