Medical Imaging

Clinical MR Neuroimaging
Diffusion, Perfusion and Spectroscopy
Edited by Jonathan H. Gillard
University of Cambridge, UK
Adam D. Waldman
Charing Cross Hospital, London, UK
and Peter B. Barker
The Johns Hopkins University, Baltimore, USA

The physiological magnetic resonance techniques of diffusion imaging, perfusion imaging and spectroscopy offer insights into brain structure, function and metabolism. Until recently, they were mainly applied within the realm of medical research, but with their increasing availability on clinical MRI machines, they are now coming into clinical practice for the evaluation of neuropathology in individual patients. This book provides the reader with a thorough review of the underlying physical principles of each of these methods, as well as comprehensive coverage of their clinical applications.

Features
• Comprehensive review of advanced neuroimaging techniques
• Explains clinical applications
• With illustrative case studies included throughout

2004 852pp 485 illustrations
978 0 521 82457 6 (0 521 82457 5) • Hardback • £185.00

Interpreting Chest X-Rays
Illustrated with 100 Cases
Philip Eng
and Foong-Koon Cheah
Both from Singapore General Hospital

Interpreting chest X-rays can seem baffling and intimidating for senior medical students and newly qualified doctors. This highly illustrated guide provides the ideal introduction to chest radiology. It uses 100 clinical cases to illuminate a wide range of common medical conditions, each illustrated with a chest X-ray and a clear description of the significant diagnostic features and their clinical relevance. Where appropriate CT scans are also included as part of the investigation. This illustrated collection of case studies will help make the learning process easier and more enjoyable and less painful.

Features
• Designed as a ready reference and revision aid for those in training and taking medical exams
• Problem orientated learning use a wide variety of real-life clinical cases
• Covers common patterns of abnormal chest X-rays encountered in daily clinical practice

2005 210pp 208 illustrations
978 0 521 6073 2 (0 521 60732 9) • Paperback • £24.99
MRI from A to Z
A Definitive Guide for Medical Professionals
Gary Liney
University of Hull, UK

From ‘AB systems’ to ‘Zipper artefact’ – even for the experienced practitioner in MRI, the plethora of technical terms and acronyms can be bewildering. More than 800 terms commonly encountered in MR Imaging and Spectroscopy are clearly defined, explained and cross-referenced, and the volume concludes with a useful collection of appendices, which tabulate many of the key constants, properties and equations. Illustrations are used to enhance and explain many of the definitions.

Features
• Concise, clear and comprehensive coverage of MRI terminology
• Definitions are enhanced with illustrations and references to further reading
• Appendices provide a core listing of key data, constants and equations

2005 270pp 32 illustrations
978 0 521 60638 7 (0 521 60638 1) • PB • £19.99

A-Z of Emergency Radiology
Erskine J. Holmes
Oxford Rotational Training Programme, UK
and Rakesh R. Misra
Wycomb Hospital, Buckinghamshire, UK

Provides a simple, easily accessible guide to the key aspects of the most commonly encountered problems. The simple A-Z format of the book allows the reader to look up the key features of a known condition. For each condition, the presentation, key features on seen imaging, and the diagnostic (and differential diagnostic) aspects are all described.

Features
• Illustrated with high quality scans throughout, A-Z layout allows rapid access to information
• All imaging modalities covered
• Perfect for radiologists and emergency department personnel alike

2004 178pp 100 illustrations
978 1 841 10201 6 (1 841 10201 6) • PB • £24.99

QBase Radiology
Volume 2: MCQs for the FRCR
Rakesh R. Misra
St Mary’s Hospital, London, UK
M. C. Uthappa
St Mary’s Hospital, London, UK
P. S. Richards
Royal London Hospital, UK
D. Evans
Royal London Hospital, UK
and O. Chan
Royal London Hospital, UK

QBase examination analysis software allows the reader to attempt exams and will automatically mark, analyse and store completed exams.

Features
• Modular approach encourages structured revision
• Includes new imaging techniques such as CT and MRI
• Approximately 250 multiple-choice questions and explanatory answers

2003 212pp
978 0 521 52153 6 (0 521 52153 X) • PB • £23.99

Radiology for Surgeons
Rakesh R. Misra
St Mary’s Hospital, London, UK
M. C. Uthappa
St Mary’s Hospital, London, UK
and Pradip K. Datta
Caithness General Hospital, Wick, UK

A superbly illustrated guide to interpreting all forms of images.

2001 212pp 120 illustrations
978 1 841 10033 3 (1 841 10033 1) • PB • £26.00
Magnetic Resonance Imaging in Stroke
Edited by Stephen Davis
Royal Melbourne Hospital and University of Melbourne, Australia
Marc Fisher
National Institute of Mental Health, Bethesda, Maryland, USA
Steven Warach
National Institute of Health, Bethesda, Maryland, USA
Advances in magnetic resonance imaging (MRI) are transforming the investigation and treatment of cerebrovascular disease. Echoplanar techniques with diffusion and perfusion weighted imaging, together with developments in magnetic resonance spectroscopy and angiography, are replacing CT scanning as the diagnostic modality of choice. In this profusely illustrated book world leaders in these technologies review the scientific basis and clinical applications of MRI in stroke.

‘This book provides a good overview of the use of MRI in stroke and is of educational benefit to both clinicians and radiologists involved in the care of patients with stroke and has started to take on some very important issues …’

NEURORADIOLOGY
2003 280pp 127 illustrations
978 0 521 80683 1 (0 521 80683 6) • HB • £85.00

Magnetic Resonance Imaging in Stroke

Imaging in SARS
A. T. Ahuja and C. G. C. Ooi
Both from the Chinese University of Hong Kong
This book aims to be a state-of-the-art update on SARS, with particular reference to imaging, which plays a crucial role in the diagnosis, management and follow-up of patients with the disease. It will also provide a perspective on the treatment and experience of the disease outside Hong Kong.
2004 194pp 150 illustrations
978 1 841 10219 1 (1 841 10219 9) • HB • £40.00

Imaging in SARS

Introduction to Functional Magnetic Resonance Imaging
Principles and Techniques
Richard B. Buxton
University of California, San Diego, USA
Functional Magnetic Resonance Imaging (fMRI) is an important and highly interdisciplinary field involving neuroscientists and physicists as well as clinicians who need to understand the rapidly increasing range, flexibility and sophistication of the techniques. Richard Buxton, a leading authority on fMRI, provides an invaluable, broad introduction for this readership to how fMRI works.

‘Buxton has an art of taking complex concepts and describing them in simple words, without oversimplifying them, using images and metaphors in a very sound way … For all of us using fMRI techniques in our research, this book is a must for our libraries. Who would have guessed that a physics textbook about fMRI could be a pleasure to read.’

TRENDS IN NEUROSCIENCES
2002 536pp 168 illustrations
978 0 521 58113 4 (0 521 58113 3) • HB • £115.00
978 0 521 00274 5 (0 521 00274 5) • HB and CD Rom • £200.00
978 0 521 00275 2 (0 521 00275 3) • CD Rom • £115.00

Introduction to Functional Magnetic Resonance Imaging

Digital Imaging
A Primer for Radiographers, Radiologists and Health Care Professionals
Edited by Jason Oakley
University of Portsmouth, UK
Fulfils the need of the modern radiographer and radiologist to understand how digital imaging, manipulation and storage systems actually work on a practical level. It explains the equipment and principles behind computers in radiology, and will also serve as an invaluable reference to radiologists, radiographers, managers and information technologists when purchasing and installing equipment. The book features a series of MCQs to test the reader’s knowledge and to enhance its use as a self-learning and staff training tool.
2003 224pp 75 illustrations
978 1 841 10121 7 (1 841 10121 4) • PB • £24.99

Digital Imaging

Practical Head and Neck Ultrasound
Edited by Anil T. Ahuja
The Chinese University of Hong Kong and Rhodri M. Evans
Morriston Hospital, Swansea, Wales
With excellent diagrams and high quality images, this book illustrates the key technical and diagnostic steps needed by both trainee and established radiographers or radiologists. It provides clear guidance on scanning technique, potential pitfalls and common problems, and how to achieve optimum image quality.
2000 232pp 150 illustrations
978 1 841 10090 6 (1 841 10090 0) • HB • £40.00

Practical Head and Neck Ultrasound

Fundamentals of Medical Imaging
Paul Suetsens
Medical Image Computing, K. U. Leuven, Belgium
Medical imaging has become a very important technology in medical diagnosis and treatment. This book explains the mathematical and physical principles of medical imaging and image processing. It introduces digital image processing, explains the most important imaging modalities, and describes image analysis and visualization after images are available. An accompanying CD includes all the images in colour and some animations.
2002 294pp 130 illustrations
978 0 521 80362 4 (0 521 80362 4) • HB and CD Rom • £70.00

Fundamentals of Medical Imaging
Medical Imaging
Forthcoming

Diagnostic Ultrasound
Physics and Equipment
Peter Hoskins
University of Edinburgh, Scotland
Abigail Thrush
The London NHS Trust, UK
Kevin Martin
University Hospitals of Leicester, UK
and Tony Whittingam
Newcastle General Hospital, UK

A technical introduction to the subject, without going beyond the level of knowledge required. Fully illustrated throughout, with high-quality halftones and explanatory line diagrams, it covers all aspects of the topic from the basic physics of waves and wave propagation, transducer design and beam formation, signal processing and information storage (including PACS), through spectral, colour and 3D Doppler, to contrast agents and safety implications.

2002   248pp   190 illustrations
978 1 841 10042 5   (1 841 10042 0) • PB • £38.00

Atlas of Musculoskeletal Ultrasound Anatomy
Mike Bradley
University of Bristol, UK
and Paul O’Donnell
Royal National Orthopaedic Hospital, Middlesex, UK

Provides the reader with the essential grounding in normal ultrasound anatomy that they require in order to be able to assess when this anatomy is disrupted through injury and/or disease. The book is structured systematically, with each anatomical area of interest being covered by high quality ultrasound scans and accompanying, concise text.

2002   272pp
978 1 841 10118 7   (1 841 10118 4) • PB • £24.99

Paediatric Ultrasound
Edited by Helen M. L. Carty
Sharon F. Crawford
and Julie B. Higham
All from Alder Hey Children’s Hospital, Liverpool, UK

A practical and detailed grounding in the techniques and diagnostic applications of ultrasound imaging in children. It focuses on the principles of best practice, the key topics and the common problems encountered as the technologist and clinician acquire the fundamental skills of equipment selection and image optimisation.

2001   216pp   200 illustrations
978 1 900 15117 7    (1 900 15117 0) • PB • £35.00

Atlas of Musculoskeletal Ultrasound Anatomy
Mike Bradley
University of Bristol, UK
and Paul O’Donnell
Royal National Orthopaedic Hospital, Middlesex, UK

Provides the reader with the essential grounding in normal ultrasound anatomy that they require in order to be able to assess when this anatomy is disrupted through injury and/or disease. The book is structured systematically, with each anatomical area of interest being covered by high quality ultrasound scans and accompanying, concise text.

2002   272pp
978 1 841 10118 7   (1 841 10118 4) • PB • £24.99

Forthcoming

Radiology Made Easy
2nd Edition
Arpan K. Banerjee
Birmingham Heartlands and Solihull Hospitals, UK

Radiology plays a central role in diagnosis, management and even treatment of a patient’s condition. This book adopts a systemic approach to cover the commonest clinical problems that are encountered on the wards, in tutorials and in examinations. It is highly illustrated throughout with numerous radiographic and images.

Nov 2005   180pp   160 illustrations
978 0 521 67635 9   (0 521 67635 5) • PB • £23.95

Breast Calcification
A Diagnostic Manual
Edited by Andy Evans
Ian Ellis
Sarah Pinder
and Robin Wilson
All from City Hospital, Nottingham, UK

A practical understanding to the diagnosis and treatment of breast calcification this will be essential reading for all members of the breast screening team, including pathologists, radiologists and surgeons. Covering in detail the main pathologies that present with calcification, and go on to describe the techniques of fine needle aspiration and core biopsy and large bore biopsy sampling of tissue, reporting procedures, radiological management of calcification and clinical aspects of the diagnosis of breast calcification.

2002   208pp
978 1 841 10111 8   (1 841 10111 7) • HB • £50.00

Forthcoming

New Edition Practical Gynaecological Ultrasound
Edited by Jane Bates
St James’s University Hospital, Leeds

This user-friendly book provides a practical introduction to gynaecological ultrasound. It describes and explains background anatomy and physiology, instrumentation and how to make the best use of equipment. Emphasis is placed on how to maximise image quality, and how to recognise normal and pathological features. The volume assesses other relevant diagnostic techniques and various management strategies, and evaluates the role of ultrasound as part of patient management. Illustrated throughout with numerous high-quality ultrasound images and line drawing, this is essential reading for practitioners in training, including radiologists, gynaecologists and sonographers.

November 2005   250pp   7 illustrations
978 1 841 10207 8   (1 841 10207 5) • PB • £35.00

C A M B R I D G E  U N I V E R S I T Y  P R E S S
www.cambridge.org

ISBN 9780521982078
The book industry is changing its numbering system. When quoting the ISBN, please use either the 13 or 10 digit ISBN (shown in brackets) when ordering during 2005 and 2006.

Please order from your local bookseller

---

**English in Medicine**

**A Course in Communication Skills**

3rd Edition

Eric H. Glendinning and Beverly Holmström

English in Medicine is a course for doctors, medical students and other medical professionals who need to communicate with patients and medical colleagues. The course is at an intermediate level and does not require specialist knowledge of medicine on the part of the teacher. Each of the seven units focuses on one area of doctor-patient communication, from history taking and examination to diagnosis and treatment. The course develops all four skills with a wide variety of activities. The third edition has been updated to take account of developments in medicine and the impact of new information technology and is now in full colour.

978 0 521 60666 0   (0 521 60666 7) • PB • £14.99
978 0 521 60667 7   (0 521 60667 5) • Audio Cassette • £12.00
978 0 521 60668 4   (0 521 60668 3) • Audio CD • £12.00

---

**The Journal of Diagnostic Radiography and Imaging**

*The Journal of Diagnostic Radiography and Imaging* covers all of the current modalities used in diagnostic imaging.

[www.journals.cambridge.org/jid_JDR](http://www.journals.cambridge.org/jid_JDR)

---

**The Journal of Radiotherapy in Practice**

*The Journal of Radiotherapy in Practice* is a peer-reviewed journal covering all of the current modalities specific to clinical oncology and radiotherapy.

[www.journals.cambridge.org/jid_JRP](http://www.journals.cambridge.org/jid_JRP)

Information is correct at time of going to press but subject to change without prior notice.