CONTENTS

Contributors vii
Foreword ix
Preface xi
Acknowledgements xiii
Abbreviations xiv

SECTION 1 IMAGING PRINCIPLES

1. Film/screen imaging 3
   Susan Penelope Nash
2. Digital imaging 9
   Philip Cosson
3. Exposure factors, manipulation and dose 19
   Barry Carver

SECTION 2 SKELETAL RADIOGRAPHY

4. Introduction to Sections 2 and 3: skeletal, chest and abdominal radiography 27
   Elizabeth Carver
5. Fingers, hand and wrist 35
   Elizabeth Carver
6. Forearm, elbow and humerus 57
   Elizabeth Carver
7. The shoulder girdle 73
   Linda Williams
8. Foot, toes, ankle, tibia and fibula 87
   Linda Williams
9. Knee and femur 107
   Linda Williams
10. Pelvis and hips 121
    Linda Williams
11. Cervical spine 135
    Barry Carver
12. Thoracic spine 153
    Linda Williams
13. Lumbar spine 159
    Barry Carver, Margot McBride, Elizabeth Carver
14. Sacrum and coccyx 175
    Elizabeth Carver
15. Thoracic skeleton 181
    Elizabeth Carver
16. Principles of radiography of the head: conventional technique 189
    Elizabeth Carver
17. Principles of radiography of the head: isocentric technique 197
    Amanda Royle
18. Cranial vault 203
    Barry Carver, Amanda Royle
19. Facial bones 213
    Elizabeth Carver, Amanda Royle
20. Paranasal sinuses 233
    Elizabeth Carver
21. Specialised projections of the skull 239
    Elizabeth Carver, Amanda Royle
22. Dental radiography 253
    Elizabeth Carver
23. Orthopantomography 269
    Elizabeth Carver
24. Cephalometry 273
    Elizabeth Carver

SECTION 3 CHEST AND ABDOMEN

25. Chest and thoracic contents 277
    Elizabeth Carver
26. Abdomen 301

Elizabeth Carver

SECTION 4 ACCIDENT AND EMERGENCY IMAGING

27. Accident and emergency 309

Jonathan McConnell, Elizabeth Carver

SECTION 5 BREAST IMAGING

28. Mammography: introduction and rationale 339

Julie Burnage

29. Mammography technique 345

Julie Burnage

30. Breast ultrasound 355

Julie Burnage

31. Mammography localisation 359

Julie Burnage

SECTION 6 PAEDIATRIC IMAGING

32. Paediatric imaging 365

Tim Palarm, Michael Scriven, Elizabeth Carver

SECTION 7 CONTRAST STUDIES

33. Contrast media 387

Susan Cutler

34. Gastrointestinal tract 403

Joanne Rudd, Darren Wood

35. Accessory organs of the gastrointestinal tract 421

Darren Wood, Elizabeth Carver

36. Investigations of the genitourinary tract 431

Elizabeth Carver, Catherine Williams

37. Cardiovascular system 449

Mark Cowling, Colin Monaghan

38. Interventional and therapeutic procedures 457

Mark Cowling

39. Vascular imaging of the head and neck 481

Patricia Fowler, Andrew Layt

SECTION 8 ADDITIONAL IMAGING METHODS

40. Computed tomography 493

Barry Carver

41. Magnetic resonance imaging 517

John Talbot

42. Radionuclide imaging 563

David Wyn Jones, Julian MacDonald

43. Ultrasound 583

Rita Philips, Mike Stocksley

Glossary of radiographic terms 611

Index 615