

Contents

chapter 1 Introduction to the Human Body 1

chapter 2 Back 49

chapter 3 Thorax 91

chapter 4 Abdomen 155

chapter 5 Pelvis and Perineum 231

chapter 6 Lower Limb 289

chapter 7 Upper Limb 365

chapter 8 Head and Neck 435

Index 555

Clinical Focus Boxes

chapter 1 Introduction to the Human Body

- 1.1 Psoriasis, 5
- 1.2 Burns, 6
- 1.3 Langer's Lines, 6
- 1.4 Fractures, 12
- 1.5 Degenerative Joint Disease, 13
- 1.6 Atherogenesis, 19
- 1.7 Potential Spaces, 38

Available Online

- 1.8 Myasthenia Gravis

chapter 2 Back

- 2.1 Scoliosis, 51
- 2.2 Cervical Fractures, 53
- 2.3 Osteoarthritis, 55
- 2.4 Osteoporosis, 58
- 2.5 Spondylolysis and Spondylolisthesis, 59
- 2.6 Intervertebral Disc Herniation, 59
- 2.7 Back Pain Associated With the Zygapophysial (Facet) Joints, 61
- 2.8 Low Back Pain, 62
- 2.9 Whiplash Injury, 64
- 2.10 Herpes Zoster, 75
- 2.11 Lumbar Puncture and Epidural Anesthesia, 77
- 2.12 Spina Bifida, 83

Available Online

- 2.13 Myofascial Pain
- 2.14 Acute Spinal Syndromes

Clinical Focus Boxes

chapter 3

Thorax

- 3.1 Thoracic Cage Injuries, 96
- 3.2 Fibrocystic Breast Disease, 100
- 3.3 Breast Cancer, 101
- 3.4 Partial Mastectomy, 102
- 3.5 Modified Radical Mastectomy, 103
- 3.6 Chest Tube Thoracostomy, 107
- 3.7 Idiopathic Pulmonary Fibrosis, 109
- 3.8 Pulmonary Embolism, 110
- 3.9 Lung Cancer, 111
- 3.10 Chronic Obstructive Pulmonary Disease, 112
- 3.11 Cardiac Tamponade, 115
- 3.12 Dominant Coronary Circulation, 116
- 3.13 Angina Pectoris (the Referred Pain of Myocardial Ischemia), 120
- 3.14 Coronary Bypass, 120
- 3.15 Coronary Angiogenesis, 121
- 3.16 Myocardial Infarction, 123
- 3.17 Cardiac Auscultation, 124
- 3.18 Valvular Heart Disease, 125
- 3.19 Cardiac Pacemakers, 127
- 3.20 Cardiac Defibrillators, 128
- 3.21 Mediastinal Masses, 133
- 3.22 Ventricular Septal Defect, 142
- 3.23 Atrial Septal Defect, 143
- 3.24 Patent Ductus Arteriosus, 144
- 3.25 Repair of Tetralogy of Fallot, 145

Available Online

- 3.26 Hemothorax
- 3.27 Chronic Cough
- 3.28 Pneumonia
- 3.29 Cardiovascular Disease (Elderly and Women)
- 3.30 Saphenous Vein Graft Disease
- 3.31 Infective Endocarditis
- 3.32 Mitral Valve Prolapse
- 3.33 Ventricular Tachycardia
- 3.34 Chylothorax
- 3.35 Coarctation of the Aorta

chapter 4

Abdomen

- 4.1 Abdominal Wall Hernias, 162
- 4.2 Inguinal Hernias, 167
- 4.3 Hydrocele and Varicocele, 168
- 4.4 Acute Appendicitis, 173

- 4.5 Gastroesophageal Reflux Disease (GERD), 175
- 4.6 Hiatal Hernia, 176
- 4.7 Peptic Ulcer Disease, 177
- 4.8 Bariatric Surgery, 178
- 4.9 Crohn Disease, 179
- 4.10 Ulcerative Colitis, 180
- 4.11 Diverticulosis, 181
- 4.12 Colorectal Cancer, 182
- 4.13 Volvulus, 183
- 4.14 Intussusception, 185
- 4.15 Gallstones (Cholelithiasis), 186
- 4.16 Pancreatic Cancer, 188
- 4.17 Rupture of the Spleen, 189
- 4.18 Portal Hypertension, 195
- 4.19 Cirrhosis of the Liver, 196
- 4.20 Renal Stones (Calculi), 204
- 4.21 Obstructive Uropathy, 205
- 4.22 Malignant Tumors of the Kidney, 206
- 4.23 Surgical Management of Abdominal Aortic Aneurysm, 208
- 4.24 Congenital Megacolon, 215
- 4.25 Meckel's Diverticulum, 218
- 4.26 Congenital Malrotation of the Colon, 220
- 4.27 Pheochromocytoma, 221
- 4.28 Renal Fusion, 222

Available Online

- 4.29 Acute Abdomen: Visceral Etiology
- 4.30 Irritable Bowel Syndrome
- 4.31 Acute Pyelonephritis
- 4.32 Causes and Consequences of Portal Hypertension

chapter 5

Pelvis and Perineum

- 5.1 Pelvic Fractures, 233
- 5.2 Urinary Tract Infections, 239
- 5.3 Stress Incontinence in Women, 242
- 5.4 Uterine Prolapse, 243
- 5.5 Cervical Carcinoma, 243
- 5.6 Uterine Leiomyomas (Fibroids), 244
- 5.7 Endometriosis, 244
- 5.8 Uterine Endometrial Carcinoma, 245
- 5.9 Chronic Pelvic Inflammatory Disease, 245
- 5.10 Dysfunctional Uterine Bleeding, 246
- 5.11 Ectopic Pregnancy, 247
- 5.12 Assisted Reproduction, 247

Clinical Focus Boxes

- 5.13 Ovarian Cancer, 248
- 5.14 Vasectomy, 251
- 5.15 Testicular Cancer, 252
- 5.16 Hydrocele and Varicocele, 252
- 5.17 Transurethral Resection of the Prostate, 253
- 5.18 Prostatic Carcinoma, 254
- 5.19 Hemorrhoids, 267
- 5.20 Episiotomy, 268
- 5.21 Sexually Transmitted Diseases, 269
- 5.22 Urethral Trauma in the Male, 273
- 5.23 Urine Extravasation in the Male, 273
- 5.24 Erectile Dysfunction, 274
- 5.25 Hypospadias and Epispadias, 278
- 5.26 Uterine Anomalies, 279
- 5.27 Male Circumcision (Newborn), 280

Available Online

- 5.28 Ovarian Tumors

chapter 6

Lower Limb

- 6.1 Deep Venous Thrombosis, 291
- 6.2 Developmental Dislocation of the Hip, 294
- 6.3 Pelvic Fractures, 295
- 6.4 Intracapsular Femoral Neck Fracture, 296
- 6.5 Pressure (Decubitus) Ulcers, 300
- 6.6 Iliotibial Tract (Band) Syndrome, 302
- 6.7 Fractures of the Shaft and Distal Femur, 303
- 6.8 Thigh Muscle Injuries, 306
- 6.9 Diagnosis of Hip, Buttock, and Back Pain, 308
- 6.10 Revascularization of the Lower Limb, 310
- 6.11 Femoral Pulse and Vascular Access, 311
- 6.12 Multiple Myeloma, 317
- 6.13 Tibial Fractures, 318
- 6.14 Deep Tendon Reflexes, 318
- 6.15 Patellar Injuries, 319
- 6.16 Rupture of the Anterior Cruciate Ligament, 319
- 6.17 Sprains of the Knee Ligaments, 320
- 6.18 Tears of the Meniscus, 320
- 6.19 Osgood-Schlatter Lesion, 321
- 6.20 Osteoarthritis of the Knee, 321
- 6.21 Septic Bursitis and Arthritis, 322
- 6.22 Shin Splints, 324
- 6.23 Osteosarcoma of the Tibia, 324
- 6.24 Genu Varum and Valgum, 329

- 6.25 Exertional Compartment Syndromes, 329
- 6.26 Achilles Tendinitis and Bursitis, 330
- 6.27 Footdrop, 335
- 6.28 Ankle Sprains, 336
- 6.29 Rotational Fractures, 338
- 6.30 Fractures of the Calcaneus, 339
- 6.31 Congenital Clubfoot, 342
- 6.32 Plantar Fasciitis, 343
- 6.33 Deformities of the Toes, 343
- 6.34 Fractures of the Talar Neck, 344
- 6.35 Common Foot Infections, 345
- 6.36 Diabetic Foot Lesions, 346
- 6.37 Arterial Occlusive Disease, 347
- 6.38 Gout, 347

Available Online

- 6.39 Healing of Fractures

chapter 7

Upper Limb

- 7.1 Glenohumeral Dislocations, 368
- 7.2 Fracture of the Proximal Humerus, 369
- 7.3 Clavicular Fractures, 370
- 7.4 Rotator Cuff Injury, 374
- 7.5 Shoulder Tendinitis and Bursitis, 375
- 7.6 Brachial Plexopathy, 378
- 7.7 Deep Tendon Reflexes, 386
- 7.8 Fractures of the Humerus, 386
- 7.9 Biceps Brachii Rupture, 389
- 7.10 Elbow Dislocation, 390
- 7.11 Fracture of the Radial Head and Neck, 394
- 7.12 Biomechanics of Forearm Radial Fractures, 396
- 7.13 Fracture of the Ulnar Shaft, 402
- 7.14 Distal Radial (Colles') Fracture, 402
- 7.15 Median Nerve Compression and Carpal Tunnel Syndrome, 407
- 7.16 Fracture of the Scaphoid, 408
- 7.17 Allen's Test, 408
- 7.18 De Quervain Tenosynovitis, 409
- 7.19 Proximal Interphalangeal Joint Dislocations, 410
- 7.20 Finger Injuries, 411
- 7.21 Radial Nerve Compression, 417
- 7.22 Proximal Median Nerve Compression, 420
- 7.23 Ulnar Tunnel Syndrome, 421
- 7.24 Clinical Evaluation of Compression Neuropathy, 422
- 7.25 Ulnar Nerve Compression in Cubital Tunnel, 423

Clinical Focus Boxes

Available Online

- 7.26 Trigger Finger
- 7.27 Rheumatoid Arthritis
- 7.28 Central Venous Access

chapter 8

Head and Neck

- 8.1 Skull Fractures, 439
- 8.2 Zygomatic Fractures, 439
- 8.3 Midface Fractures, 440
- 8.4 Hydrocephalus, 446
- 8.5 Meningitis, 447
- 8.6 Subarachnoid Hemorrhage, 449
- 8.7 Epidural Hematomas, 451
- 8.8 Subdural Hematomas, 452
- 8.9 Transient Ischemic Attack, 452
- 8.10 Stroke, 453
- 8.11 Carotid-Cavernous Sinus Fistula, 454
- 8.12 Collateral Circulation After Internal Carotid Artery Occlusion, 454
- 8.13 Vascular (Multiinfarct) Dementia, 455
- 8.14 Brain Tumors, 456
- 8.15 Metastatic Brain Tumors, 457
- 8.16 Trigeminal Neuralgia, 462
- 8.17 Herpes Zoster (Shingles), 462
- 8.18 Facial Nerve (Bell's) Palsy, 463
- 8.19 Tetanus, 464
- 8.20 Orbital Blow-Out Fracture, 467
- 8.21 Clinical Testing of the Extraocular Muscles, 469
- 8.22 Horner's Syndrome, 470
- 8.23 Eyelid Infections and Conjunctival Disorders, 474
- 8.24 Papilledema, 475
- 8.25 Diabetic Retinopathy, 477
- 8.26 Glaucoma, 478
- 8.27 Ocular Refractive Disorders, 479
- 8.28 Cataract, 480
- 8.29 Pupillary Light Reflex, 481
- 8.30 Acute Otitis Externa and Otitis Media, 485
- 8.31 Cochlear Implant, 487
- 8.32 Mandibular Dislocation, 488
- 8.33 Mandibular Fractures, 490
- 8.34 Rhinosinusitis, 492
- 8.35 Nosebleed, 497
- 8.36 Common Oral Lesions, 505
- 8.37 Cancer of the Oral Cavity, 506

- 8.38 Hyperthyroidism With Diffuse Goiter (Graves' Disease), 515
- 8.39 Primary Hypothyroidism, 516
- 8.40 Manifestations of Primary Hyperparathyroidism, 517
- 8.41 Emergency Airway: Cricothyrotomy, 525
- 8.42 Manifestations of Hoarseness, 525
- 8.43 Nerve Lesions (CN X and CN XII), 538
- 8.44 Craniosynostosis, 546
- 8.45 Congenital Anomalies of the Oral Cavity, 546
- 8.46 Pharyngeal Arch and Pouch Anomalies, 547