

Contents

chapter 1

Introduction to the Human Body 1

chapter 2

Back 49

chapter 3

Thorax 87

chapter 4

Abdomen 145

chapter 5

Pelvis and Perineum 217

chapter 6

Lower Limb 271

chapter 7

Upper Limb 345

chapter 8

Head and Neck 411

Index 525

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, 18
- 1-7 Asthma, 22
- 1-8 Potential Spaces, 38

Available Online

- 1-9 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

chapter 3

Thorax

- 3-1 Thoracic Cage Injuries, 92
- 3-2 Fibrocystic Breast Disease, 96

- 3-3 Breast Cancer, 97
- 3-4 Partial Mastectomy, 98
- 3-5 Modified Radical Mastectomy, 99
- 3-6 Chest Drainage Tubes, 103
- 3-7 Pulmonary Embolism, 105
- 3-8 Lung Cancer, 106
- 3-9 Chronic Obstructive Pulmonary Disease, 107
- 3-10 Idiopathic Pulmonary Fibrosis, 107
- 3-11 Cardiac Tamponade, 110
- 3-12 Dominant Coronary Circulation, 112
- 3-13 Angina Pectoris (the Referred Pain of Myocardial Ischemia), 115
- 3-14 Coronary Bypass, 115
- 3-15 Coronary Angiogenesis, 116
- 3-16 Myocardial Infarction, 118
- 3-17 Cardiac Auscultation, 119
- 3-18 Valvular Heart Disease, 120
- 3-19 Cardiac Pacemakers, 122
- 3-20 Cardiac Defibrillators, 123
- 3-21 Mediastinal Masses, 127
- 3-22 Ventricular Septal Defect, 136
- 3-23 Atrial Septal Defect, 137
- 3-24 Patent Ductus Arteriosus, 138
- 3-25 Repair of Tetralogy of Fallot, 139

Available Online

- 3-26 Hemothorax
- 3-27 Chronic Cough
- 3-28 Pneumonia
- 3-29 Cardiovascular Disease
- 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, 152
- 4-2 Inguinal Hernias, 157
- 4-3 Hydrocele and Varicocele, 158
- 4-4 Acute Appendicitis, 163
- 4-5 Gastroesophageal Reflux Disease (GERD), 164
- 4-6 Hiatal Hernia, 165
- 4-7 Peptic Ulcer Disease, 166
- 4-8 Bariatric Surgery, 167

- 4-9 Crohn Disease, 168
- 4-10 Ulcerative Colitis, 169
- 4-11 Diverticulosis, 170
- 4-12 Colorectal Cancer, 171
- 4-13 Volvulus, 172
- 4-14 Intussusception, 175
- 4-15 Gallstones (Cholelithiasis), 176
- 4-16 Pancreatic Cancer, 178
- 4-17 Rupture of the Spleen, 179
- 4-18 Cirrhosis of the Liver, 185
- 4-19 Portal Hypertension, 186
- 4-20 Renal Stones (Calculi), 194
- 4-21 Obstructive Uropathy, 195
- 4-22 Malignant Tumors of the Kidney, 196
- 4-23 Surgical Management of Abdominal Aortic Aneurysm, 198
- 4-24 Congenital Megacolon, 206
- 4-25 Meckel's Diverticulum, 208
- 4-26 Congenital Malrotation of the Colon, 210
- 4-27 Renal Fusion, 211
- 4-28 Pheochromocytoma, 212

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, 219
- 5-2 Urinary Tract Infections, 225
- 5-3 Stress Incontinence in Women, 228
- 5-4 Uterine Prolapse, 229
- 5-5 Cervical Carcinoma, 229
- 5-6 Uterine Leiomyomas (Fibroids), 230
- 5-7 Endometriosis, 230
- 5-8 Uterine Endometrial Carcinoma, 231
- 5-9 Chronic Pelvic Inflammatory Disease, 231
- 5-10 Dysfunctional Uterine Bleeding, 232
- 5-11 Ectopic Pregnancy, 233
- 5-12 Assisted Reproduction, 233
- 5-13 Ovarian Cancer, 234
- 5-14 Vasectomy, 237
- 5-15 Testicular Cancer, 238
- 5-16 Hydrocele and Varicocele, 238
- 5-17 Transurethral Resection of the Prostate, 239

- 5-18 Prostatic Carcinoma, 240
- 5-19 Hemorrhoids, 253
- 5-20 Episiotomy, 254
- 5-21 Sexually Transmitted Diseases, 255
- 5-22 Urethral Trauma in the Male, 259
- 5-23 Urine Extravasation in the Male, 259
- 5-24 Erectile Dysfunction, 260
- 5-25 Hypospadias and Epispadias, 264
- 5-26 Uterine Anomalies, 265

Available Online

- 5-27 Ovarian Tumors

chapter 6

Lower Limb

- 6-1 Deep Venous Thrombosis, 273
- 6-2 Congenital Hip Dislocation, 276
- 6-3 Pelvic Fractures, 277
- 6-4 Intracapsular Femoral Neck Fracture, 278
- 6-5 Pressure (Decubitus) Ulcers, 282
- 6-6 Iliotibial Tract (Band) Syndrome, 283
- 6-7 Fractures of the Shaft and Distal Femur, 284
- 6-8 Thigh Muscle Injuries, 287
- 6-9 Diagnosis of Hip, Buttock, and Back Pain, 289
- 6-10 Revascularization of the Lower Limb, 291
- 6-11 Femoral Pulse and Vascular Access, 292
- 6-12 Multiple Myeloma, 298
- 6-13 Tibial Fractures, 299
- 6-14 Deep Tendon Reflexes, 299
- 6-15 Patellar Injuries, 300
- 6-16 Rupture of the Anterior Cruciate Ligament, 300
- 6-17 Sprains of the Knee Ligaments, 301
- 6-18 Tears of the Meniscus, 301
- 6-19 Osgood-Schlatter Disease, 302
- 6-20 Osteoarthritis of the Knee, 302
- 6-21 Septic Bursitis and Arthritis, 303
- 6-22 Shin Splints, 305
- 6-23 Osteosarcoma of the Tibia, 305
- 6-24 Genu Varum and Valgum, 310
- 6-25 Exertional Compartment Syndromes, 310
- 6-26 Achilles Tendinitis and Bursitis, 311
- 6-27 Footdrop, 316
- 6-28 Lateral Ankle Sprain, 316
- 6-29 Ankle Fractures, 317
- 6-30 Rotational Fractures, 319
- 6-31 Fractures of the Calcaneus, 320

- 6-32 Congenital Clubfoot, 323
- 6-33 Metatarsal and Phalangeal Injuries, 324
- 6-34 Plantar Fasciitis, 325
- 6-35 Deformities of the Toes, 325
- 6-36 Fractures of the Talar Neck, 326
- 6-37 Common Foot Infections, 327
- 6-38 Diabetic Foot Lesions, 328
- 6-39 Arterial Occlusive Disease, 329
- 6-40 Gout, 329

Available Online

- 6-41 Healing of Fractures

chapter 7

Upper Limb

- 7-1 Glenohumeral Dislocations, 348
- 7-2 Fracture of the Proximal Humerus, 349
- 7-3 Clavicular Fractures, 350
- 7-4 Rotator Cuff Injury, 354
- 7-5 Shoulder Tendinitis and Bursitis, 355
- 7-6 Brachial Plexopathy, 358
- 7-7 Axillary Lipoma, 361
- 7-8 Deep Tendon Reflexes, 367
- 7-9 Fractures of the Humerus, 367
- 7-10 Biceps Brachii Rupture, 370
- 7-11 Elbow Dislocation, 371
- 7-12 Fracture of the Radial Head and Neck, 375
- 7-13 Biomechanics of Forearm Radial Fractures, 377
- 7-14 Fracture of the Ulna Shaft, 382
- 7-15 Distal Radial (Colles') Fracture, 382
- 7-16 Median Nerve Compression and Carpal Tunnel Syndrome, 387
- 7-17 Fracture of the Scaphoid, 388
- 7-18 Allen's Test, 388
- 7-19 De Quervain Tenosynovitis, 389
- 7-20 Proximal Interphalangeal Joint Dislocations, 390
- 7-21 Finger Injuries, 391
- 7-22 Radial Nerve Compression, 397
- 7-23 Proximal Median Nerve Compression, 400
- 7-24 Ulnar Tunnel Syndrome, 401
- 7-25 Clinical Evaluation of Compression Neuropathy, 402
- 7-26 Ulnar Nerve Compression in Cubital Tunnel, 403

Available Online

- 7-27 Trigger Finger
- 7-28 Rheumatoid Arthritis
- 7-29 Central Venous Access

chapter 8

Head and Neck

- 8-1 Skull Fractures, 415
- 8-2 Zygomatic Fractures, 415
- 8-3 Midface Fractures, 416
- 8-4 Hydrocephalus, 422
- 8-5 Meningitis, 423
- 8-6 Subarachnoid Hemorrhage, 425
- 8-7 Epidural Hematomas, 427
- 8-8 Subdural Hematomas, 428
- 8-9 Transient Ischemic Attack, 428
- 8-10 Stroke, 429
- 8-11 Carotid-Cavernous Sinus Fistula, 430
- 8-12 Collateral Circulation after Internal Carotid Artery Occlusion, 430
- 8-13 Vascular (Multi-infarct) Dementia, 431
- 8-14 Brain Tumors, 432
- 8-15 Metastatic Brain Tumors, 433
- 8-16 Trigeminal Neuralgia, 438
- 8-17 Herpes Zoster (Shingles), 438
- 8-18 Facial Nerve (Bell's) Palsy, 439
- 8-19 Tetanus, 440
- 8-20 Orbital Blow-out Fracture, 443
- 8-21 Clinical Testing of the Extra-ocular Muscles, 445
- 8-22 Horner's Syndrome, 446
- 8-23 Eyelid Infections and Conjunctival Disorders, 451
- 8-24 Papilledema, 451
- 8-25 Diabetic Retinopathy, 452
- 8-26 Glaucoma, 453
- 8-27 Ocular Refractive Disorders, 454
- 8-28 Cataract, 455
- 8-29 Pupillary Light Reflex, 456
- 8-30 Mandibular Dislocation, 457
- 8-31 Mandibular Fractures, 459
- 8-32 Rhinosinusitis, 461
- 8-33 Nosebleed, 466
- 8-34 Acute Otitis Externa and Otitis Media, 471
- 8-35 Weber and Rinne Tests, 473
- 8-36 Cochlear Implant, 473
- 8-37 Vertigo, 474
- 8-38 Removal of an Acoustic Neuroma, 475
- 8-39 Common Oral Lesions, 480
- 8-40 Cancer of the Oral Cavity, 481
- 8-41 Hyperthyroidism with Diffuse Goiter (Graves' Disease), 490
- 8-42 Primary Hypothyroidism, 491
- 8-43 Manifestations of Primary Hyperparathyroidism, 492
- 8-44 Emergency Airway: Cricothyrotomy, 500

- 8-45 Manifestations of Hoarseness, 500
- 8-46 Nerve Lesions, 511
- 8-47 Craniosynostosis, 518
- 8-48 Congenital Anomalies of the Oral Cavity, 518
- 8-49 Pharyngeal Arch and Pouch Anomalies, 519

- 8-37 Common Foot Infection, 433
- 8-38 Diabetic Foot Lesions, 433
- 8-39 Arterial Occlusive Disease, 433
- 8-40 Gout, 437
- 8-41 Epidural Hematomas, 437
- 8-42 Subdural Hematomas, 438
- 8-43 Transient Ischemic Attack, 438
- 8-44 Stroke, 439
- 8-45 Carotid-Cavernous Sinus Fistula, 439

- 8-46 Collateral Circulation after Internal Carotid Artery Occlusion, 439

Upper Limb

- 8-14 Brain Tumors, 433
- 8-15 Metastatic Brain Tumors, 433
- 8-16 Fracture of the Humerus, 433
- 8-17 Trigeminal Neuralgia, 438
- 8-18 Herpes Zoster (Shingles), 438
- 8-19 Rotator Cuff Injury, 439
- 8-20 Facial Nerve (Bell's) Palsy, 439
- 8-21 Tetanus, 440
- 8-22 Brachial Plexus Injury, 440
- 8-23 Orbital Blow-out Fracture, 443
- 8-24 Clinical Testing of the Extra-ocular Muscles, 443
- 8-25 Horner's Syndrome, 448
- 8-26 Eyelid Infection and Conjunctival Disorders, 481
- 8-27 Papilledema, 481
- 8-28 Diabetic Retinopathy, 482
- 8-29 Glaucoma, 483
- 8-30 Ocular Refractive Disorders, 484
- 8-31 Cataract, 485
- 8-32 Pupillary Light Reflex, 485
- 8-33 Mandibular Dislocation, 487
- 8-34 Mandibular Fractures, 489
- 8-35 Rhinorrhea, 481
- 8-36 Epistaxis, 488
- 8-37 Proximal Interphalangeal Joint, 471
- 8-38 Acute Gouty Arthritis and Gouty Nodules, 471
- 8-39 Weber and Rinne Tests, 473
- 8-40 Cochlear Implant, 473
- 8-41 Proximal Medial Nerve, 474
- 8-42 Vertigo, 474
- 8-43 Removal of an Acoustic Neuroma, 475
- 8-44 Common Oral Lesions, 480
- 8-45 Cancer of the Oral Cavity, 481

- 8-46 Hypothyroidism with Diffuse Goiter (Graves' Disease), 480
- 8-47 Primary Hypothyroidism, 481
- 8-48 Manifestations of Primary Hypothyroidism, 482
- 8-49 Emergency Airway: Chondrolysis, 480