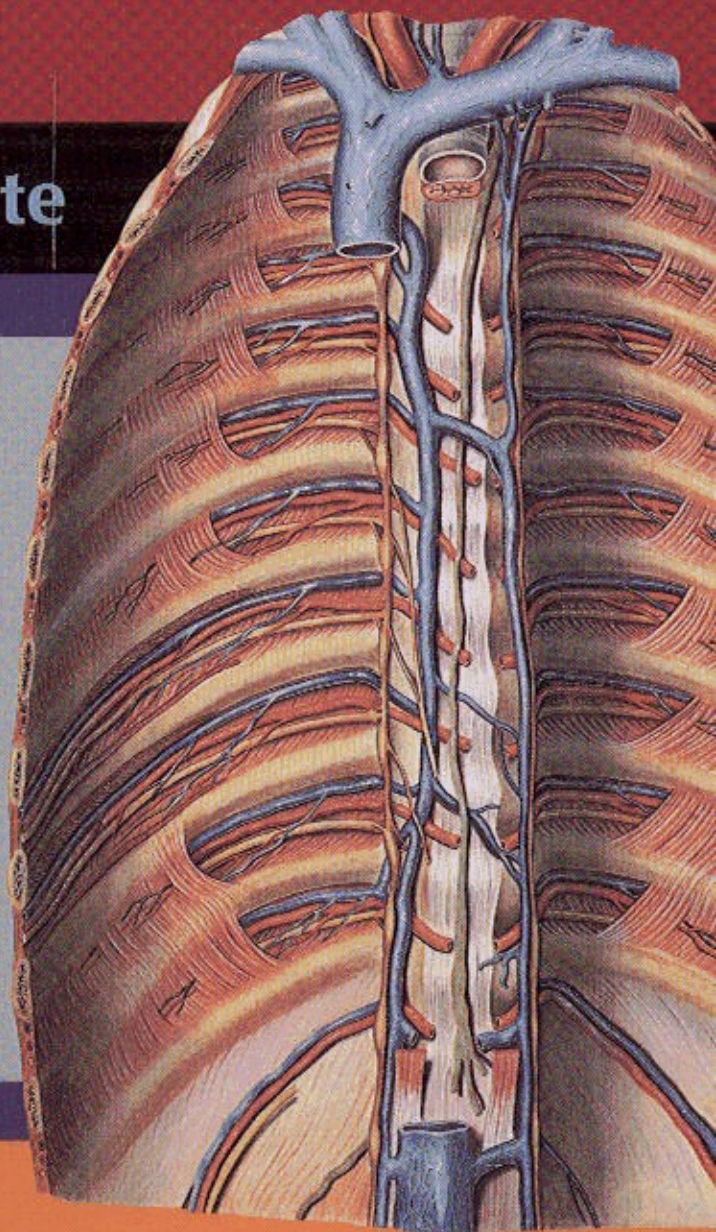
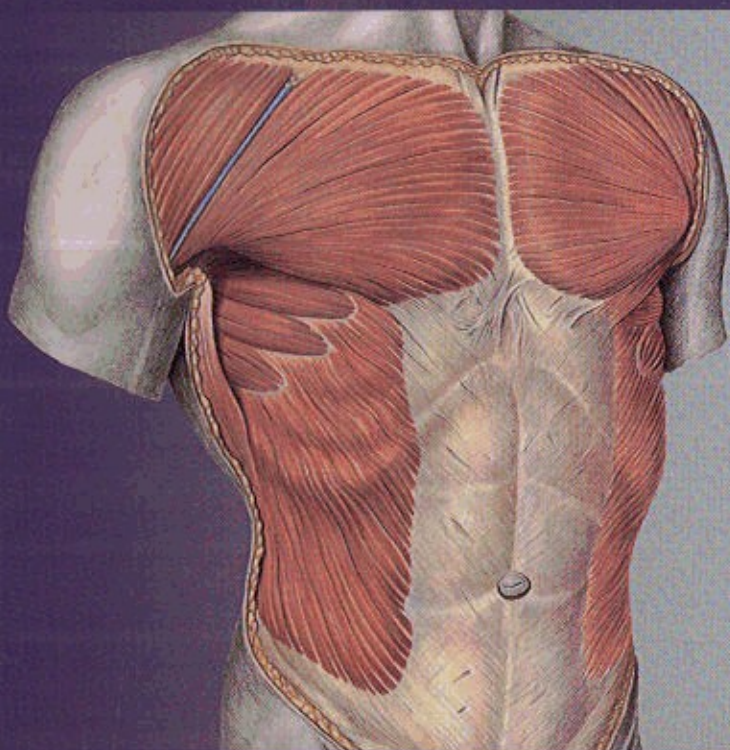


Clemente's Anatomy Dissector

SECOND EDITION

Carmine D. Clemente



CONTENTS

Preface v

How to Use This Book vii

DISSECTION #1

Introductory Session and Surface Anatomy of the Thorax, Shoulder, and Upper Limb1

- I. General Comments and Care of the Cadaver 1
- II. Dissection Instruments 1
- III. The Anatomic Position 1
- IV. Anatomic Planes 2
- V. Surface Anatomy of the Anterior Thorax, Shoulder, Axilla, and Upper Limb 2

DISSECTION #2

Mammary Gland and Pectoral Region8

- I. Observe Other Cadavers 8
- II. Reflection of Skin 8
- III. Mammary Gland 9
- IV. Reflection of the Superficial Fascia 12
- V. Pectoral Muscles and Other Structures 13

DISSECTION #3

Deep Pectoral Region and Axilla.....16

- I. Deep Pectoral Region 16
- II. Axilla 17

DISSECTION #4

Scapular and Deltoid Regions; Posterior Compartment of the Arm23

- I. Surface Anatomy; Skin Incisions; Cutaneous Nerves 23
- II. Cut Scapular Attachments of Trapezius and Deltoid Muscles; The Supraspinous and Infraspinous Fossae 24
- III. Lateral Border of Scapula; Triangular and Quadrangular Spaces; Axillary Nerve and Deltoid Region 27
- IV. Anastomoses Around the Scapula 29
- V. Posterior (Extensor) Compartment of the Arm 30

DISSECTION #5

Anterior Brachial Region; Cubital Fossa; Anterior Forearm and Wrist.....34

- I. Surface Anatomy; Skin Incisions; Superficial Veins and Nerves 34

II. Anterior Compartment of the Arm: Muscles, Vessels, and Nerves 37

III. The Cubital Fossa 40

IV. Anterior Forearm Muscles, Vessels, and Nerves 40

V. Tendons, Vessels, and Nerves on the Anterior Wrist 44

DISSECTION #6

Palmar Aspect of the Hand46

- I. Surface Anatomy; Skin Incisions; The Palmar Aponeurosis and Digital Vessels and Nerves 46
- II. Ulnar Artery and Nerve; Fascial Spaces of the Hand 49
- III. Flexor Retinaculum; Flexor Tendons and Synovial and Fibrous Sheaths; Dissection of Middle Finger 50
- IV. Thenar Muscles; Movements of the Thumb; Dissection of the Distal Thumb; The Hypothenar Muscles 53
- V. Adductor Pollicis Muscle; Deep Palmar Arch; Deep Branch of the Ulnar Nerve; Interosseous Muscles 54

DISSECTION #7

Posterior Compartment of Forearm and Dorsum of Hand.....56

- I. General Introduction 56
- II. Surface Anatomy; Removal of Skin; Superficial Veins and Nerves 56
- III. Muscles of the Extensor Compartment of the Forearm 58
- IV. Extensor Retinaculum; Extensor Synovial Sheaths; Structures Across the Dorsum of the Wrist 61
- V. Arteries and Nerves on Dorsum of Hand; Dorsal Interosseous Muscles 63

DISSECTION #8

Joints of the Upper Extremity65

- I. Joints of the Shoulder Region 65
- II. Joints at the Elbow Region 68
- III. The Middle and Distal Radio-ulnar Joints 71
- IV. Joints at the Wrist 72
- V. Metacarpophalangeal and Interphalangeal Joints 74

DISSECTION #9

Thorax I: Anterior Thoracic Wall.....76

- I. Surface Anatomy; Thoracic Vertebrae, Ribs, and Respiratory Movements; Projections of Heart and Lungs Onto the Thoracic Wall 76
- II. Anterior Thoracic Wall: Muscles, Vessels, and Nerves 82
- III. Removal of the Anterior Thoracic Wall 84
- IV. Pleura and Thoracic Viscera in Place; Removal of the Lungs 85

DISSECTION # 10

Thorax II: Pleura and Lungs; Anterior Mediastinum; Middle Mediastinum and Pericardium; Removal of the Heart88

- I. Pleural Reflections 88
- II. Lungs 89
- III. Mediastinum and Its Subdivisions; Anterior Mediastinum 93
- IV. Middle Mediastinum and Pericardium 94

DISSECTION # 11

Thorax III: The Heart: Blood Circulation; Heart Surface Anatomy; Blood Supply, Chambers, and Conducting System of the Heart.....97

- I. Circulation of the Blood: General Comments 97
- II. Surface Anatomy of the Heart 97
- III. Arteries and Veins of the Heart 99
- IV. Chambers of the Heart 101
- V. Conducting System of the Heart 106

DISSECTION # 12

Thorax IV: Posterior Mediastinum; Sympathetic Trunks; Diaphragm From Above; Superior Mediastinum109

- I. Posterior Mediastinum 109
- II. Sympathetic Trunks and Splanchnic Nerves 112
- III. Diaphragm 113
- IV. Superior Mediastinum 113

DISSECTION # 13

The Anterior Abdominal Wall118

- I. Surface Anatomy of the Anterior Abdominal Wall 118
- II. Skin Incisions; Superficial Fascia; Cutaneous Vessels and Nerves 119
- III. Flat Muscles and Nerves of the Anterior Abdominal Wall 122
- IV. Rectus Abdominis Muscle and Sheath; Epigastric Anastomosis 124
- V. Inguinal Region 126
- VI. Scrotum; Spermatic Cord; Testis 128
- VII. Female Inguinal Canal, Round Ligament of the Uterus, and the Labia Majora 129

DISSECTION # 14

Abdominal Cavity I: Topography of the Abdominal Viscera and Reflections of the Peritoneum.....131

- I. Exposure of Abdominal Cavity; Inner Surface of Abdominal Wall; Falciform and Round Ligaments 131

- II. Peritoneum and Abdominal Viscera *In Situ* 133
- III. Peritoneal Cavity; Greater and Lesser Peritoneal Sacs 137

DISSECTION # 15

Abdominal Cavity II: Rotation of the Gut; Dissection of Stomach; Liver; Duodenum and Pancreas; Spleen140

- I. Embryologic Events Related to the Development of the Gastrointestinal Tract 140
- II. Dissection of the Stomach, Liver and Gall Bladder, Duodenum and Pancreas, and Spleen 143

DISSECTION # 16

Abdominal Cavity III: Intestinal Tract From Duodenojejunal Junction to Rectum152

- I. Superior and Inferior Mesenteric Vessels 152
- II. Jejunum and Ileum 156
- III. Large Intestine 157

DISSECTION # 17

Abdominal Cavity IV: Posterior Abdominal Wall161

- I. Gonadal Vessels, Kidneys, Ureters, and Suprarenal Glands 161
- II. Muscles of the Posterior Abdominal Wall and the Lumbar Plexus 165
- III. The Diaphragm From the Abdominal Aspect 169
- IV. Abdominal Aorta; Inferior Vena Cava; Lumbar Sympathetic Chain 170

DISSECTION # 18

The Pelvis: Male and Female173

- I. General Features Found in Both the Male and Female Pelvis 173
- II. Male Pelvic Viscera: Urinary Bladder and Ureters; Seminal Vesicles and Ductus Deferens; Prostate Gland and Prostatic Urethra; Rectum 179
- III. Female Pelvic Organs: Urinary Bladder, Ureters, and Urethra; Ovaries and Uterine Tubes; Uterus and Vagina; Rectum 182
- IV. Lateral Pelvic Wall and Floor: Vessels, Nerves, and Muscles 185

DISSECTION # 19

The Perineum: Male and Female192

- I. General Information and Surface Anatomy 192
- II. Anal Triangle and Region 194
- III. Male Urogenital Triangle and Region 197
- IV. Female Urogenital Triangle and Region 203

DISSECTION # 20**The Gluteal Region, Posterior Thigh, and Popliteal Fossa**209

- I. Surface Anatomy; Skin Incisions; Cutaneous Innervation 209
- II. Gluteal Region 212
- III. Posterior Compartment of the Thigh 216
- IV. Popliteal Fossa 220

DISSECTION # 21**Anterior and Medial Compartments of the Thigh**223

- I. Surface Anatomy; Superficial Vessels and Nerves 223
- II. Femoral Triangle; Femoral Vessels and Their Branches; Adductor Canal; Femoral Nerve 226
- III. Quadriceps Femoris Muscle and Its Motor Nerves 228
- IV. The Medial (Adductor) Region of the Thigh 230

DISSECTION # 22**Anterior and Lateral Compartments of the Leg and Dorsum of the Foot**234

- I. Surface Anatomy; Superficial Vessels and Nerves; Anterior Leg, Ankle, and Dorsum of the Foot 236
- II. Anterior Compartment of the Leg 239
- III. Lateral Compartment of the Leg 243
- IV. Ankle Region and Dorsum of the Foot 243

DISSECTION # 23**The Posterior Leg and Sole of the Foot**248

- I. Surface Anatomy 248
- II. Incisions and Superficial Dissection of the Posterior Leg 249
- III. Posterior Compartment: Muscles, Vessels, and Nerves 249
- IV. Plantar Aspect of the Foot 253

DISSECTION # 24**Joints of the Lower Limb**260

- I. Sacroiliac Joint 260
- II. Symphysis Pubis 263
- III. Hip Joint 264
- IV. Knee Joint 268
- V. Tibiofibular Joints 271
- VI. Ankle Joint (Talocrural Joint) 272
- VII. Joints Within the Foot 275

DISSECTION # 25**Superficial and Deep Back; Spinal Cord**280

- I. Posterior Primary Rami; Trapezius and Latissimus Dorsi; Rhomboids and Levator Scapulae 280
- II. Intermediate Muscles of the Back 286

- III. Deep Muscles of the Back 287
- IV. Vertebral Canal and Spinal Cord 290

DISSECTION # 26**Back of the Neck and the Suboccipital Region**297

- I. Posterior Skull and First Two Cervical Vertebrae 297
- II. Dorsal Rami of the Cervical Nerves 298
- III. Suboccipital Triangle 300
- IV. Vertebral Artery 300

DISSECTION # 27**The Superficial Face and Anterior Scalp**303

- I. Bony Landmarks and Surface Anatomy of the Face and Forehead 303
- II. Skin Incisions; Reflections of Skin Flaps 304
- III. External Muscles of the Mouth 305
- IV. External Nose 306
- V. Anterior Orbital Region 307
- VI. Superficial Vessels and Nerves of the Face 309
- VII. Superficial Structures on the Lateral Face 312

DISSECTION # 28**Temporal and Infratemporal Regions (Deep Face)**316

- I. Veins of the Temporal and Retromandibular Regions 316
- II. Masseter and Temporalis Muscles 318
- III. Infratemporal Fossa and Its Contents 319
- IV. Temporomandibular Joint 325

DISSECTION # 29**Posterior Triangle of the Neck**328

- I. Boundaries of the Posterior Triangle; Skin Incisions 328
- II. Superficial Vessels and Nerves 330
- III. Omohyoid and Other Posterior Triangle Muscles 332
- IV. Expose the Subclavian Vessels and Brachial Plexus By Removing the Middle Third of the Clavicle 332
- V. Subclavian Vessels 332
- VI. Cervical Part of the Brachial Plexus 334

DISSECTION # 30**Anterior Triangle of the Neck**337

- I. Surface Landmarks and Triangles of the Neck 337
- II. Superficial Anterior Cervical Structures 339
- III. Infrahyoid Strap Muscles; the Ansa Cervicalis 341
- IV. Thyroid Gland; Superior and Inferior Thyroid Arteries; Recurrent Laryngeal Nerves; Parathyroid Glands 343
- V. Structures Within or Adjacent to the Carotid Triangle 345
- VI. Suprahyoid Region 348
- VII. Deep Structures at the Root of the Neck 349

DISSECTION #31

The Scalp; the Floor of the Cranial Cavity; the Base of the Brain353

- I. The Scalp 353
- II. Removal of Skull Cap and Wedge of Occipital Bone 356
- III. Meninges; Removal of the Brain 357
- IV. Base of Skull: Bony Markings; Foramina 360
- V. Arterial Blood Supply to the Brain 362

DISSECTION #32

The Orbit: Superior and Anterior Dissections..366

- I. The Bony Orbit 366
- II. The Orbit From Above 367
- III. The Orbit From the Anterior Approach 373

DISSECTION #33

Craniovertebral Joints and Prevertebral Region.....380

- I. Basilar Part of the Occipital Bone; the Atlas and Axis 380
- II. Median and Lateral Atlantoaxial Joints; Allantooccipital Joints 381
- III. Separation of the Head and Cervical Viscera From the Vertebral Column 384
- IV. The Prevertebral Region 384

DISSECTION #34

The Pharynx: External and Internal Dissections386

- I. Structure and Relationships of the Pharynx; Vagus and Glossopharyngeal Nerves 386
- II. Pharyngeal Constrictor Muscles 388
- III. Interior of the Pharynx 390

DISSECTION #35

The Nasal Cavity and Paranasal Sinuses in the Bisected Head394

- I. Bisection of the Head 394
- II. Nasal Septum 395
- III. Roof and Floor of the Nasal Cavity 396
- IV. Lateral Wall of the Nasal Cavity 397
- V. Pterygopalatine Ganglion; Greater and Lesser Palatine Nerves and Vessels 399
- VI. Paranasal Sinuses 400

DISSECTION #36

Nasopharynx; Oropharynx (Inner Wall); Palate; Mouth and Tongue.....403

- I. Nasopharynx 403
- II. Soft Palate From Above: Levator and Tensor Palati Muscles 404
- III. Internal Structure of the Oropharynx 404
- IV. Hard Palate Dissected From Its Oral Surface 406
- V. Oral Cavity and Tongue 407

DISSECTION #37

The Larynx and Laryngopharynx.....415

- I. The Skeleton of the Larynx 415
- II. Surface Anatomy of the Anterior Larynx 416
- III. The Posterior Larynx; the Laryngopharynx; the Lateral Laryngeal Muscles 418
- IV. The Interior of the Larynx 421

DISSECTION #38

The External and Middle Ear and the Semicircular Canals of the Inner Ear.....425

- I. The External Ear 425
- II. The Lateral (Mastoid) Approach to the Facial Nerve; Semicircular Canals; Tympanic Cavity 427
- III. The Superior (Cranial Cavity) Approach to the Middle Ear 430