

# Photographic Atlas of Anatomy

General Anatomy  
and Musculo-  
skeletal System

1 General Anatomy

→ p. 1

2 Trunk

→ p. 19

3 Upper Limb

→ p. 82

4 Lower Limb

→ p. 148

Internal Organs

5 Thoracic Organs

→ p. 219

6 Abdominal Organs

→ p. 267

7 Retroperitoneal Organs

→ p. 301

Head, Neck,  
and Brain

8 Head and Neck

→ p. 349

9 Brain and Sensory Organs

→ p. 442

Appendix

Additional Resources

→ p. 521

# General Anatomy and Musculoskeletal System

## 1 General Anatomy

Position of the Internal Organs, Palpable Points, and Regional Lines .....	2
Planes and Directions of the Body .....	4
Osteology:	
Skeleton of the Human Body .....	6
Bone Structure .....	8
Ossification of the Bones .....	9
Arthrology:	
Types of Joints .....	10
Architecture of the Joint .....	12
Myology:	
Shapes of Muscles .....	13
Structure of the Muscular System .....	14
Organization of the Circulatory System .....	16
Organization of the Lymphatic System .....	17
Organization of the Nervous System .....	18

## 2 Trunk

Skeleton .....	20
Head and Cervical Vertebral Column .....	23
Joints Connecting to the Head .....	24
Vertebrae .....	26
Vertebral Joints .....	28
Thorax and Vertebral Column: Bones .....	29
Vertebral Column: Ligaments .....	32
Costovertebral Joints .....	34
Costovertebral Joints and Intercostal Muscles .....	35
Thoracic and Abdominal Walls:	
Surface Anatomy (Female) .....	36
Surface Anatomy (Male) .....	37
Muscles .....	38
Epigastric Vessels .....	42
Vessels and Nerves .....	44
Superficial Layer .....	46
Thoracic Deeper Layer .....	47
Abdominal Deeper Layer .....	48
Inguinal Region:	
Superficial Layer (Male) .....	49
Deep Layer (Male) .....	50
Deep Layer, Hernias (Male) .....	51
Superficial and Deep Layers (Female) .....	52
Sections through the Trunk .....	53
Back:	
Surface Anatomy .....	54
Muscles .....	55
Vessels and Nerves .....	60
Spinal Cord .....	61
Superficial Layer .....	62

Deeper Layer .....	63
Deepest Layer .....	64
Vertebral Canal Opened .....	65
Sections through the Lumbar Part of the Vertebral Column and the Spinal Cord .....	68
Nuchal Region:	
Superficial Layer .....	72
Deeper Layer .....	73
Deep Layer .....	74
Deepest Layer .....	76
Vertebral Canal Partly Opened .....	77
Vertebral Canal and Cranial Cavity Opened .....	78
Cranial Cavity Opened .....	79
Oblique-Lateral Aspect .....	80
Sections through the Nuchal Region of the Cervical Vertebral Column .....	81

## 3 Upper Limb

Shoulder Girdle and Thorax .....	83
Scapula and Clavicle .....	85
Shoulder Girdle and Upper Arm .....	86
Upper Arm: Humerus .....	87
Forearm: Radius and Ulna .....	88
Forearm and Hand .....	89
Hand .....	90
Joints and Ligaments:	
Shoulder .....	92
Elbow .....	93
Hand .....	94
Muscles of the Shoulder and Upper Arm:	
Dorsal Muscles .....	96
Pectoral Muscles .....	98
Muscles of the Upper Arm:	
Lateral Muscles .....	100
Pectoral Muscles, Tendons of Biceps Brachii Muscle .....	101
Muscles of the Forearm and Hand:	
Flexor Muscles .....	102
Flexor Muscles and Synovial Sheaths .....	104
Extensor Muscles and Synovial Sheaths .....	106
Extensor Muscles (Deep Layer) .....	107
Muscles and Tendons of the Hand .....	108
Arteries .....	110
Veins .....	112
Nerves .....	113
Surface Anatomy and Cutaneous Veins:	
Posterior Aspect .....	115
Anterior Aspect .....	116
Posterior Regions of Shoulder and Upper Arm:	
Superficial Layer .....	117
Deep Layer .....	118
Deepest Layer .....	119

Anterior Regions of Shoulder and Upper Arm:	
Superficial Layer	120
Deep Layer	121
Posterior Aspects of Upper Arm:	
Superficial Layer	122
Deep Layer	123
Axillary Region:	
Inferior Aspect	124
Anterior Aspect	125
Brachial Plexus	127
Sections through the Shoulder and Upper Arm	128
Sections through the Forearm and Hand	129
Upper Arm: Neurovascular Systems, Regional Anatomy	130
Cubital Region:	
Superficial Layer	132
Middle Layer	133
Deepest Layer	134
Sections through the Cubital Region	135
Posterior Regions of Forearm and Hand: Superficial Layer	136
Posterior Regions of Forearm: Superficial and Deep Layer	137
Anterior Regions of Forearm and Hand:	
Superficial Layer	138
Deep Layer	139
Dorsum of Hand: Superficial and Deep Layer	140
Wrist and Palm:	
Superficial Layer	142
Deeper Layer	143
Palm:	
Superficial Layer	144
Deeper Layer	145
Sections through the Hand	146

## 4 Lower Limb

Pelvic Girdle and Lower Limb	149
Female and Male Pelvis:	
Superior Aspect	151
Anterior Aspect	152
Posterior Aspect	153
Sacrum and Diameters of Pelvis	154
Hip Bone and Coccyx	155
Hip Joint: Bones	156
Femur	157
Tibia and Fibula	158
Knee Joint: Bones	159
Foot: Bones	160
Pelvis and Hip Joint: Ligaments	162
Knee Joint: Ligaments	164
Sections through the Joints of the Ankle	167
Foot: Ligaments	168
Muscles of the Thigh:	
Anterior Muscles	170

Posterior Muscles (Gluteal Muscles)	172
Flexor Muscles	173
Muscles of the Leg: Flexor Muscles	175
Muscles of the Leg and Foot:	
Medial and Posterior Aspects	176
Lateral Aspect	177
Deep Flexor Muscles	178
Extensor Muscles	180
Sole of Foot: Muscles and Tendons	181
Arteries	184
Veins	186
Nerves	188
Nerves: Lumbosacral Plexus	189
Surface and Regional Anatomy:	
Posterior Aspect	190
Anterior Aspect	191
Anterior Region of the Thigh:	
Superficial Layer	192
Deeper Layer	194
Gluteal Region:	
Superficial Layer	196
Deep Layer	197
Posterior Region of the Thigh:	
Superficial Layer	198
Deeper and Deepest Layer	199
Sections through the Pelvis and Thigh	200
Sections through the Thigh and Leg	201
Knee and Popliteal Fossa:	
Superficial Layer	202
Deeper Layer	203
Deep and Deepest Layer	204
Posterior and Medial Crural Region:	
Superficial Layer	205
Superficial and Middle Layer	206
Deep Layer	207
Anterior and Medial Crural Regions and Dorsum of Foot:	
Superficial Layer	208
Lateral Crural Region and Foot:	
Superficial Layer	209
Deep Layer	210
Sections through the Foot and Ankle Joint	211
Dorsum of the Foot:	
Superficial Layer	212
Superficial and Deep Layer	213
Sole of the Foot:	
Superficial and Middle Layer	214
Middle Layer	215
Deep Layer	216
Sections through the Sole of the Foot	217
Sections through the Ankle Joint and Foot	218

# Internal Organs

## 5 Thoracic Organs

Position of the Thoracic Organs .....	220
Respiratory System:	
Bronchial Tree .....	222
Projections of Lungs and Pleura .....	224
Lungs .....	225
Bronchopulmonary Segments .....	226
Heart:	
Position of the Heart .....	228
Shape and Structure .....	230
Atrioventricular Valves .....	232
Pulmonic and Aortic Valves .....	233
Direction of Blood Flow .....	234
Conducting System .....	235
Morphological Changes during Cardiac Cycle .....	236
Coronary Arteries and Veins .....	238
Fetal Circulatory System .....	240
Regional Anatomy:	
Internal Thoracic Vein and Artery .....	242
Anterior Mediastinum and Pleura .....	243
Thymus .....	244
Heart .....	246
Pericardium .....	250
Pericardium and Epicardium .....	251
Posterior Mediastinum, Mediastinal Organs .....	253
Diaphragm .....	260
Sections through the Thorax .....	262
Mammary Gland .....	266

## 6 Abdominal Organs

Position of the Abdominal Organs .....	268
Anterior Abdominal Wall .....	269
Stomach .....	270
Pancreas and Bile Ducts .....	272
Liver .....	275
Spleen .....	277
Vessels and Nerves .....	278
Vessels .....	279
Portal Venous System .....	281
Mesenteric Artery and Vein .....	282
Vessels of the Retroperitoneal Organs .....	283
Regional Anatomy:	
Regional Anatomy of the Abdominal Organs .....	284
Colon, Cecum, and Vermiform Appendix .....	285
Mesentery, Duodenojejunal Flexure, and	
Ileocecal Valve .....	286
Upper Abdominal Organs .....	287
Lower Abdominal Organs .....	294
Root of the Mesentery and Peritoneal Recesses .....	296
Sections through the Abdominal Cavity .....	298

## 7 Retroperitoneal Organs

Position of the Retroperitoneal Organs .....	302
Structure and Segments of the Kidney .....	304
Kidneys:	
Arteries and Veins .....	305
Arteries .....	306
Urinary System .....	307
Retroperitoneal Region:	
Lymph Vessels and Lymph Nodes .....	310
Vessels and Nerves .....	312
Autonomic Nervous System .....	314
Male Urogenital System:	
Position of Organs .....	316
Urinary Bladder and Related Organs .....	318
Penis .....	320
Testis and Epididymis .....	321
Accessory Glands of Genital Organs .....	322
Vessels .....	324
Vessels and Nerves .....	327
Male External Genital Organs:	
Superficial Layer .....	328
Deeper Layer .....	329
Muscles of the Pelvic Floor .....	330
Urogenital and Anal Regions in the Male:	
Superficial Layer .....	331
Deeper Layer .....	332
Deepest Layer .....	333
Female Urogenital System:	
Position of Organs .....	334
Uterus and Related Organs .....	336
Arteries and Lymph Vessels .....	338
Female Internal Genital Organs .....	339
Female External Genital Organs and Inguinal Region .....	341
Sections through the Female Pelvic Cavity .....	342
Urogenital and Anal Regions in the Female:	
Superficial Layer .....	344
Deeper Layer .....	346
Female Genital Organs: Course of Pudendal Nerve,	
Artery, and Vein .....	348

# Head, Neck, and Brain

## 8 Head and Neck

### Bones of the Skull:

Lateral Aspect .....	350
Anterior Aspect .....	352
Cranial Skeleton:	
Sphenoid and Occipital Bones .....	354
Temporal Bone .....	356
Frontal Bone .....	358
Calvaria and Parietal Bone .....	359
Base of the Skull (Internal Aspect) .....	360
Skull of the Newborn .....	363
Base of the Skull (Inferior Aspect) .....	364
Sections through the Skull .....	366
Facial Skeleton:	
Ethmoid Bone .....	368
Palatine Bone and Maxilla .....	370
Ethmoid and Palatine Bones .....	373
Maxilla, Zygomatic Bone, and Bony Palate .....	375
Pterygopalatine Fossa and Orbit .....	376
Nasal Bone, Lacrimal Bone, and Orbit .....	377
Bones of the Nasal Cavity .....	378
Septum and Cartilages of the Nose .....	379
Maxilla and Mandible with Teeth .....	380
Deciduous and Permanent Teeth .....	381
Mandible .....	382
Temporomandibular Joint: Ligaments .....	383
Temporomandibular Joint and Masticatory Muscles .....	384
Nasal and Oral Cavities: Overview .....	388
Hyoid Bone and Muscles of the Oral Cavity .....	389
Supra- and Infrhyoid Muscles .....	390
Facial Muscles .....	392
Maxillary Artery .....	394
Trigeminal, Facial, Glossopharyngeal, and Hypoglossal Nerves .....	395
Regions of the Head:	
Lateral Region .....	396
Retromandibular Region .....	400
Infratemporal Region .....	403
Submandibular Triangle .....	404
Oral Cavity and Salivary Glands .....	405
Sections through the Cavities of the Head .....	406
Organs of the Neck: Overview .....	408
Sections through the Head and Neck .....	409
Muscles of the Neck:	
Anterior Aspect .....	410
Pharynx .....	411
Larynx:	
Cartilages and Hyoid Bone .....	414
Muscles .....	416
Vocal Folds .....	417
Arteries .....	418
Arteries and Veins .....	420

Veins .....	421
Lymph Nodes and Lymph Vessels .....	422
Anterior Region of the Neck:	
Superficial Layer .....	424
Deeper Layer .....	425
Deeper Layer and Thyroid Gland .....	426
Deep Layer .....	428
Posterior Region of the Neck:	
Deep Layer .....	429
Deepest Layer .....	430
Lateral Region of the Neck:	
Superficial Layer .....	432
Deeper Layer .....	433
Deep Layer .....	438
Sections through the Neck .....	441

## 9 Brain and Sensory Organs

Cranial Nerves: Overview .....	443
Innervation Area of Cranial Nerve I:	
Nose and Nasal Cavities .....	446
Nerves and Vessels of Nasal Cavities .....	448
Sections through the Nasal Cavities and the Orbit .....	450
Innervation Area of Cranial Nerve II: Orbit and Eye .....	452
Eye:	
Eyelids and Lacrimal Apparatus .....	453
Extra-Ocular Muscles .....	454
Orbits .....	456
Eyeball .....	458
Visual Pathways:	
Optic Tract .....	460
Thalamus .....	461
Cranial Nerves of the Orbit .....	462
Eye and Cranial Nerves II, III, IV, V <sub>1</sub> , and VI .....	463
Cranial Nerve V .....	466
Cranial Nerve VII .....	468
Cranial Nerves in Connection with the Brainstem and Cranial Nerve III .....	469
Auditory and Vestibular Apparatus and Cranial Nerve VIII .....	470
Auditory and Vestibular Apparatus:	
Temporal Bone .....	473
Middle Ear .....	474
Internal Ear .....	477
Auditory Pathway and Auditory Areas .....	479
Cranial Nerves IV, VII, VIII, IX, X, XI, XII .....	480
Brain and Meninges: Overview .....	482
Vertex of the Skull and Meninges .....	483
Meninges:	
Venous Sinuses of the Dura Mater .....	484
Dura Mater .....	486
Pia Mater and Arachnoid .....	487
Sections through the Brain and the Meninges .....	488

<b>Brain:</b>	
Arteries and Veins .....	490
Cerebrum .....	497
Cerebellum .....	500
Corpus Callosum and Lateral Ventricle .....	502
Lateral Ventricle and Limbic System .....	503
Limbic System .....	504
Hypothalamus .....	506
Subcortical Nuclei .....	507
Ventricular System .....	510
Brainstem .....	512
Sections through the Brain .....	514
<b>Appendix: Additional Resources</b>	
<b>Trunk:</b>	
Arteries and Veins of the Trunk and Body Cavity .....	522
Vessels and Lymphatics of the Trunk and Body Cavity....	528
Muscles of the Trunk .....	529
Innervation and Segmentation of the Trunk .....	533
<b>Upper Limb:</b>	
Arteries and Veins of the Upper Limb .....	534
Vessels and Nerves of the Upper Limb .....	536
Muscles of the Upper Limb .....	538
Innervation and Segmentation of the Upper Limb .....	543
<b>Lower Limb:</b>	
Arteries and Veins of the Lower Limb .....	544
Lymphatics of the Lower Limb .....	546
Nerves of the Lower Limb .....	547
Vessels and Nerves of the Lower Limb .....	548
Muscles of the Lower Limb .....	549
Innervation and Segmentation of the Lower Limb .....	555
<b>Head and Neck:</b>	
Arteries and Veins of the Head and Neck .....	556
Lymphatics of the Head and Neck and Cranial Nerves....	560
Cranial Nerves .....	561
Muscles of the Head .....	565
Muscles of the Head and Neck .....	566
Vessels and Nerves of the Head and Neck .....	567
<b>Index</b> .....	569