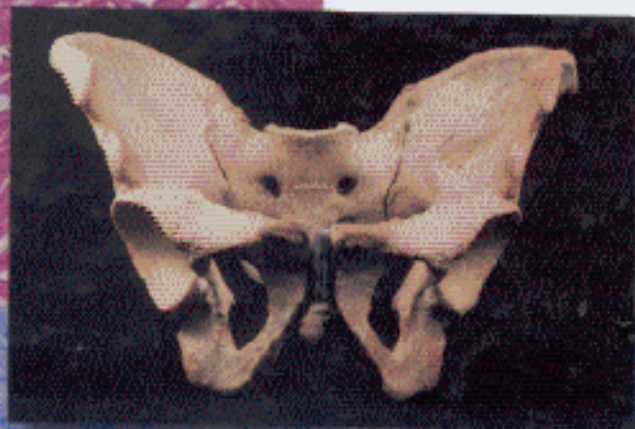
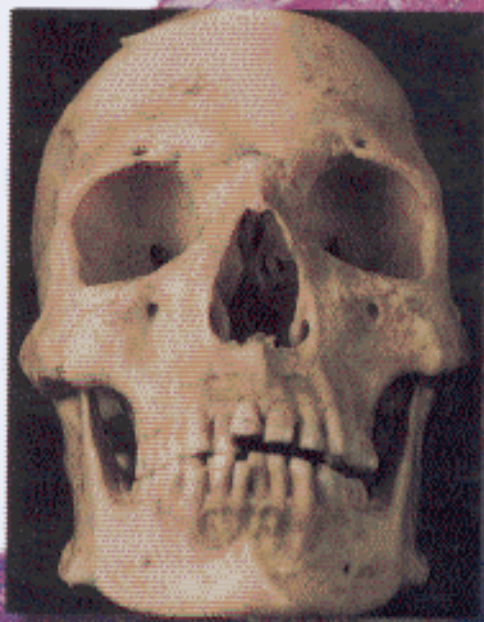


A N A T L A S T O Human Anatomy



Suranaree University of Technology



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STRETE / CREEK

Cells and Tissues

1

1 Anatomy at the Cellular Level 3

Electron micrograph (EM) of animal cell, EM of nucleus, plasma membrane, ER, ribosomes, mitochondria, Golgi apparatus, lysosome, centrioles and centrosome, peroxisome, cytoplasmic inclusions, diagram cell cycle, chromosomes, karyotyping, mitosis, meiosis.

2 Tissue Organization: Epithelial, Connective, Muscle, and Nervous Tissue 17

Types of epithelia: simple squamous, stratified squamous, simple columnar, ciliated columnar, transitional epithelium, stereocilia.

Organ Systems

29

3 Integumentary System 31

Cross section (CS) of thick skin, thin skin, skin and hair follicles, Pacinian corpuscles, sebaceous and sweat glands, nail.

4 Skeletal System 37

Histology of bone, osteon, spongy bone, dense bone, ground bone with haversian systems, whole skeleton; axial skeleton: fetal skull (different positions), adult skull (different positions), disarticulated skull bones (in a chart form), skull bones (frontal, parietal, occipital, temporal, zygomatic, maxilla, hyoid, mandible, nasal, lacrimal, inferior concha, palatine, ethmoid, sphenoid); vertebral column: cervical (three types), thoracic vertebra, lumbar vertebra, sacrum, coccyx, sternum, ribs, rib cage; appendicular skeleton: scapula (different positions), clavicle, humerus, radius and ulna, carpals, metacarpals, phalanges, articulated male and female pelvic girdles, femur, tibia and fibula, tarsals and metatarsals, phalanges, patella.

5 Muscular System 89

Histology of muscles to include smooth muscle, skeletal muscle, cardiac muscle, facial muscles (different positions), chest muscles, abdominal muscles, back muscles, muscles of the arms and legs.

6 Nervous System 111

Histology of brain tissue: neurons (different types), CS cerebral cortex, cerebellum, ventricle and ependymal cells, choroid plexus; nervous system: whole human brain (different positions), sagittal section of brain, brainstem (different positions), coronal sections of brain, horizontal sections of brain, insula of brain, cerebellum; spinal cord: complete brain and spinal cord.

7 Special Senses: Olfactory, Gustation, Auditory, Visual 123

Histology of receptors (Pacinian corpuscles, Meissner's corpuscles, taste buds); eye: histology of eye tissue (retina, cornea, eyelid, lacrimal gland, optic nerve), whole eye, eye muscles, eye socket, eye lens; ear; histology of ear: CS of cochlea, CS of crista ampullaris, organ of Corti.

8 Endocrine System 129

Histology of endocrine tissue (pineal gland, pituitary gland, thyroid gland, parathyroid gland, adrenal gland, pancreas), photographs of the above-mentioned glands.

9 Cardiovascular System 133

Histology, blood (erythrocytes, eosinophil, neutrophil, basophil, lymphocyte, monocyte, reticulocytes, platelet), neurovascular bundle, CS of an artery, CS of a vein, histology of heart tissue, fetal myocytes, myocardium, Purkinje fibers, body wall of heart, diagram of arterial system, diagram of the venous system, human heart (several photographs), mediastinum in thoracic region.

10 Lymphatic System 145

Histology of lymph node, thymus, tonsils, spleen, Peyer's patches, photographs of lymph node, spleen.

11 Respiratory System 149

Histology of lung tissue, nasal epithelium, trachea, photograph of thoracic cavity with lungs, photograph of trachea, lung (different position), body wall of thorax, sagittal section of skull showing respiratory structures.

12 Digestive System 155

Histology, CS of tooth, tongue, esophagus, small intestine, colon, liver, gall bladder, pancreas, submaxillary gland, parotid gland, photograph of esophagus and trachea, stomach, small and large intestine, liver (whole), pancreas (whole), gall bladder, appendix, sagittal section of the skull to show the esophagus.

13 Urinary System 165

Histology, CS of kidney, ureter, urinary bladder, urethra, photograph of whole kidney, sagittal section of kidney, kidney with blood vessels.

14 Male Reproductive System 173

Histology, CS of testis, epididymis, ductus deferens, urethra, seminal vesicle, penis, prostate, photo of testis (different positions).

15 Female Reproductive System 179

Histology, CS of ovary, oviduct, uterus, vagina, mammary gland, photograph of oviduct.