

LAB 1 : THE SKELETON

AXIAL SKELETON (except for skull)

VERTEBRAE

GENERAL STRUCTURE

- body
- vertebral foramen
- vertebral (neural) arch
- pedicle
- lamina
- transverse process
- spinous process
- superior articulating process
- inferior articulating process

in between vertebrae

- intervertebral disc
- intervertebral foramen

CERVICAL VERTEBRAE

- transverse foramen
- atlas (C1)
- axis (C2)
- odontoid process ("the dens")
- bifid spinous process
C3 to C6
- prominent spinous process
C7

THORACIC VERTEBRAE

- transverse costal facet

LUMBAR VERTEBRAE

- large body

SACRUM

- sacral promontory
- auricular surface
- anterior sacral foramina
- posterior sacral foramina
- median sacral crest
- coccyx

STERNUM

- manubrium
 - jugular notch
 - clavicular notches
- sternal angle
 - aka Angle of Louis
- body
 - costal notches
 - ribs attach here via costal cartilage
 - xiphoid process

RIBS

- true ribs
- false ribs
- floating ribs
- costal groove
- costochondral joint
- articular surface for the transverse
facet of thoracic vertebrae

LAB 2 : THE SKULL

A PART OF THE AXIAL SKELETON

CRANIAL BONES

- FRONTAL**
 - frontal sinus
 - supraorbital border
- PARIETAL**
- TEMPORAL**
 - squamous portion mandibular fossa
 - zygomatic process
 - styloid process
 - mastoid process
 - petrous portion
- OCCIPITAL**
 - external occipital protuberance
 - occipital condyle
 - superior nuchal line
- SPHENOID**
 - sphenoid sinus
 - greater wing
 - lesser wing
 - sella turcica
 - medial pterygoid process
 - lateral pterygoid process
- ETHMOID**
 - crista galli
 - cribriform plate
 - perpendicular plate
 - superior nasal concha
 - middle nasal concha
 - ethmoid sinus

FACIAL BONES

- MAXILLA**
 - maxillary sinus
 - palatine process
 - median palatine suture
- PALATINE**
 - horizontal plate
- ZYGOMATIC**
 - temporal process
- LACRIMAL**
 - nasolacrimal canal
- NASAL**
- INFERIOR NASAL CONCHA**
- VOMER**
- MANDIBLE**
 - condyloid process
 - coronoid process
 - mandibular notch
 - body
 - angle
 - ramus
 - mylohyoid line
 - pterygoid tuberosity

FORAMEN

- supraorbital
- external acoustic meatus
- internal acoustic meatus
- stylomastoid
- carotid canal
- jugular
- magnum
- hypoglossal
- optic
- rotundum
- ovale
- spinosum
- lacerum
- superior orbital fissure
- inferior orbital fissure
- cribriform
- infraorbital
- mental
- mandibular

SINUSES

- frontal
- sphenoid
- ethmoid
- maxillary

SUTURES

- coronal
- sagittal
- squamosal
- lambdoidal
- median palatine

NOTE : In newborns, many sutures are incompletely fused. These "soft spots" between the cranial bones are called fontanels.

OTHER BONES

- AUDITORY OSSICLES**
 - malleus
 - incus
 - stapes
- HYOID**
 - body
 - greater cornu
 - lesser cornu

LABS 3 & 4 : NERVOUS SYSTEM

CRANIAL NERVE

FORAMEN

| | | |
|------|--|---|
| I | Olfactory | cribriform plate |
| II | Optic | optic foramen |
| III | Oculomotor | superior orbital fissure |
| IV | Trochlear | superior orbital fissure |
| V | Trigeminal Ophthalmic branch Maxillary branch Mandibular branch | superior orbital fissure foramen rotundum foramen ovale |
| VI | Abducens | superior orbital fissure |
| VII | Facial | in- internal auditory meatus out- stylomastoid foramen |
| VIII | Vestibulocochlear | internal auditory meatus |
| IX | Glossopharyngeal | jugular foramen |
| X | Vagus | jugular foramen |
| XI | Accessory | jugular foramen |
| XII | Hypoglossal | hypoglossal canal |
| | Spinal Cord | foramen magnum |

THE SPINAL CORD

- central canal
- conus medullaris
- cauda equina
- filum terminale
- plexus
 - cervical
 - brachial
 - lumbar
 - sacral

THE BRAIN

LOBES

- frontal
- parietal
- temporal
- occipital

MAJOR DIVISIONS

- cerebrum
- cerebellum
- brainstem

DIVIDING "LINES"

- lateral sulcus
- central sulcus
- transverse fissure
- longitudinal fissure

CEREBROSPINAL FLUID

- choroid plexus
- lateral ventricles
- third ventricle
- cerebral aqueduct
- fourth ventricle

- olfactory bulb
- olfactory tract
- optic nerve
- optic chiasma
- thalamus
- hypothalamus
- pituitary gland
- corpus callosum,
- pons
- medulla oblongata
- arbor vitae

MENINGES

- dura mater
- tentorium cerebelli
- falx cerebri
- arachnoid
- pia mater

LABS 3 & 4 : NERVOUS SYSTEM (con't)

THE SPECIAL SENSES

EAR

- pinna/auricle
- external auditory meatus
- tympanic membrane
- auditory ossicles
-
-
-
- cochlea
- vestibule
-
-
- semicircular canals
-
- vestibular nerve
- cochlear nerve
- vestibulocochlear nerve
- internal auditory meatus
- eustacian tube

Eye

- tunica
 - sclera
 - choroid
 - retina
 - rods
 - cones
- cornea
- iris
- pupil
- lens
- ciliary body
- suspensory ligaments
- fovea centralis
- optic disc
- chambers of the eye
 - anterior chamber
 - posterior chamber
 - vitreous chamber (aka posterior cavity)

EYE MOVEMENT

- | | |
|---|---|
| <input type="checkbox"/> superior oblique (w/tendon) | Innervated by |
| <input type="checkbox"/> superior rectus | <input type="checkbox"/> Trochlear (IV) |
| <input type="checkbox"/> lateral rectus | <input type="checkbox"/> Oculomotor (III) |
| <input type="checkbox"/> inferior rectus | <input type="checkbox"/> Abducens (VI) |
| <input type="checkbox"/> inferior oblique | <input type="checkbox"/> Oculomotor (III) |
| <input type="checkbox"/> medial rectus | <input type="checkbox"/> Oculomotor (III) |

LABS 5 & 6 : MUSCLES

Chest

- pectoantebrachialis
- pectoralis minor
- pectoralis major
- xiphohumeralis
- serratus ventralis
- scalenus medius
- transversus costarum

Abdomen

- linea alba
- external oblique
- internal oblique
- transversus abdominus
- rectus abdominus

Abdominal cavity (internal)

- psoas
- iliacus

Shoulder

- clavodeltoid
 - aka clavobrachialis
- acromiodeltoid
- spinodeltoid
- levator scapulae ventralis

Head and Neck

- temporalis
- masseter
- digastric
- mylohyoid
- sternohyoid
- sternothyroid
- sternocleidomastoid

Upper arms

- biceps brachii
- brachialis
- triceps
 - long head
 - lateral head
 - medial head (deep)

Forearm, ventral view

- flexor carpi ulnaris
- palmaris longus
- flexor digitorum profundus (deep)
- flexor carpi radialis
- pronator teres
- brachioradialis

Forearm, dorsal view

- extensor carpi ulnaris
- extensor digitorum lateralis
- extensor digitorum communis
- extensor carpi radialis
- anconeus

Thigh, dorsal view

- caudofemoralis
- gluteus maximus
- gluteus medius
- tensor fascia latae

Thigh, ventral view

- gracilis
- sartorius

Lower leg

- tibialis anterior
- extensor digitorum longus
- peroneus longus
- soleus
- gastrocnemius
- flexor digitorum longus

Thigh, medial view

- adductor longus
- adductor femoris
- hamstrings
 - semimembranosus
 - semitendinosus
 - biceps femoris
- quadriceps
 - vastus medialis
 - vastus intermedius
 - rectus femoris
 - vastus lateralis

Back and shoulders

Superficial

- clavotrapezius
- acromiotrapezius
- spinotrapezius
- latissimus dorsi
- lumbodorsal fascia
- multifidus
- longissimus dorsi
- iliocostalis

Deep

- supraspinatus
- infraspinatus
- subscapularis
- teres major
- rhomboideus
 - rhomboideus capitis
- splenius

MUSCLES NOT PRESENT IN HUMAN

- pectoantebrachialis
- xiphohumeralis
- caudofemoralis
- extensors digitorum lat/com.
 - combined in human to form extensor digitorum
- clavo/acromio/spinodeltoid
 - combined in human to form deltoid
- clavo/acromio/spinotrapezius
 - combined in human to form trapezius

MUSCLES TO KNOW IN HUMAN ONLY

- platysma
- teres minor
- tongue muscles
 - geniohyoid
 - genioglossus

LAB 7 : REPRODUCTIVE AND UROGENITAL SYSTEMS

MALE

PENIS

- foreskin
- glans penis
- corona glandis
- corpus spongiosum
- penile (spongy) urethra
- corpus cavernosum
- root of penis
- bulbus
- crus

PROSTATE GLAND

- prostatic urethra
- ejaculatory duct

BULBOURETHRAL GLAND

aka Cowper's gland

MEMBRANOUS URETHRA

SPERMATIC CORD

- vas deferens
- ampulla of vas deferens
- seminal vesicle
- testicular nerve
- testicular artery
- testicular vein
- pampiniform plexus
support for spermatic cord
- inguinal canal
- inguinal ligament

SCROTUM

- scrotal septum
- cremaster muscle
- dartos muscle

TESTICLES

- seminiferous tubules
- interstitial cells
- rete testes
- epididymis
- tunica albuginea
- tunica vaginalis

FEMALE

VULVA

- mons pubis
- labia majora
- labia minora
- clitoris
- vestibule

VAGINA

- vestibular glands
- fornix

UTERUS

- cervix
- external os
- internal os
- body
- fundus
- layers*
- perimetrium
- myometrium
- endometrium
- vesicouterine pouch
- rectouterine pouch

UTERINE TUBE (FALLOPIAN)

- ampulla
- infundibulum
- fimbriae

OVARY

- ovarian artery
- ovarian vein
- broad ligament
- round ligament
- ovarian ligament
- uterosacral ligament
- mesovarium

BREAST

- mammary glands
- lobule
- lactiferous ducts
- lactiferous sinus
- areola

KIDNEY

STRUCTURE

- capsule
- cortex
- medulla
- renal sinus
- renal pelvis
- renal pyramids
- renal columns
- nephron
- renal corpuscle
 - glomerular capsule
aka Bowman's Capsule
 - glomerulus
- proximal convoluted tubule
- loop of Henle
 - descending loop
 - ascending loop
- distal convoluted tubule
- collecting ducts
- renal papillae
- minor calyx
- major calyx
- ureter

BLOOD VESSELS

- renal artery
- interlobar artery
- arcuate artery
- interlobular artery
- afferent arteriole
 - blood enters glomerulus
- efferent arteriole
- peritubular capillaries
- vasa recta
- interlobular veins
- arcuate veins
- interlobar veins
- renal vein

BLADDER

- trigone
- rugae
- detrussor muscle

URETHRA

- Male
 - prostatic
 - membranous
 - penile

LABS 8 & 9 : CIRCULATION AND RESPIRATION

HEART

- BASIC STRUCTURE**
- right atrium
 - right ventricle
 - left atrium
 - left ventricle
 - interventricular septum

- VALVES**
- tricuspid
 - bicuspid
 - aka mitral
 - chordae tendinae
 - papillary muscles
 - pulmonic semilunar valve
 - aortic semilunar valve

- LAYERS**
- pericardial sac
 - made of parietal pericardium
 - epicardium
 - myocardium
 - endocardium

- VESSELS**
- coronary arteries
 - coronary veins
 - coronary sinus
 - aorta
 - pulmonary trunk
 - vena cava
 - pulmonary veins

- FETAL HEART CIRCULATION**
- ductus arteriosus
 - ligamentum arteriosum
 - foramen ovale
 - becomes fossa ovale

VEINS

- superior vena cava
- inferior vena cava
- posterior facial
- anterior facial
- external jugular
- transverse jugular
- transverse scapular
- subscapular
- brachiocephalic
- subclavian
- internal mammary
- azygous
- cephalic
- brachial
- median cubital
- adrenolumbar
- renal
- spermatic
- ovarian
- iliolumbar
- common iliac
- internal iliac
- external iliac
- femoral
- greater saphenous
- popliteal

HEPATIC PORTAL SYSTEM

- hepatic portal vein
- superior mesenteric vein
- inferior mesenteric vein
- mesenteric vein
- gastrosplenic vein
- pancreaticoduodenal vein

ARTERIES

- pulmonary
- aorta
 - ascending
 - arch
 - descending
 - thoracic
 - abdominal
- brachiocephalic
- right subclavian
- left subclavian
- right common carotid
- left common carotid
- internal mammary
- vertebral
- transverse scapular
- intercostals
- celiac trunk
 - splenic
 - gastric
 - hepatic
- superior mesenteric
- inferior mesenteric
- adrenolumbar
- renal
- spermatic
- ovarian
- iliolumbar
- common iliac
- internal iliac
- external iliac
- femoral
- deep femoral
- popliteal

LARYNX

- pharynx
 - nasopharynx
 - oropharynx
 - laryngopharynx
- thyroid cartilage
- laryngeal prominence
- cricoid cartilage
- glottis
- epiglottis
- vocal chords
- thyroid gland
- thyroid vessel

LARYNX (con't)

- trachea
- carina
- primary bronchus
- secondary bronchus
- tertiary bronchus
- alveolus

LUNGS

- BASIC STRUCTURE**
- apex
 - base
 - hilum
- LOBES**
- right lung
 - right superior
 - right middle
 - right inferior
 - left lung
 - left superior
 - left inferior