

Bio& 241 (A&P) Unit 2 Lab 1: THE SKULL



AXIAL SKELETON

*You need to be able to distinguish
Left and right bones and processes.*

SKULL - Cranium Special Features

Sutures

- Sagittal
- Coronal
- Squamosal
- Lambdoidal
- Wormian bones

Fontanels (Fetal skull)

- Anterior (or frontal)
- Posterior (or occipital)
- Anterolaterals (or sphenoidals)
- Posterolaterals (or mastoidals)

Air sinuses

- Paranasal sinuses
 - Frontal sinus
 - Sphenoidal sinus
 - Ethmoidal sinus
 - Maxillary sinus
- Mastoid sinus

Blood sinus sulci (grooves on of cranium created by veins called sinuses)

- Superior sagittal sulcus
- Transverse sulci
- Sigmoid sulci

SKULL - Cranium Bones [8]

Frontal Bone [1]

- Superciliary arch
- Glabella
- Supraorbital margin

Supraorbital notch (sometimes foramen)

Parietal bones [2]

Occipital bone [1]

- Foramen magnum
- Occipital condyles
- Hypoglossal canal (fossa)
- External occipital protuberance
- Superior nuchal line
- Inferior nuchal line

Temporal bones [2]

- Squamous portion
 - Zygomatic process
- Mastoid portion
 - Mastoid process
 - Mastoid air cells (or sinuses)
- Petrous portion
 - External auditory meatus
 - Mandibular fossa
 - Styloid process
 - Stylomastoid foramen
 - Jugular fossa
 - Jugular foramen
 - Carotid canal (or foramen)
 - Internal auditory meatus

Sphenoid bone [1]

- Body
- Sphenoid sinuses
- Greater wings
- Lesser wings

Sphenoid bone [1]

- Sella turcica (or Turk's saddle)
 - Chiasmatic groove
 - Hypophyseal fossa
- Optic foramen
- Superior orbital fissure
- Pterygoid processes
 - Medial
 - Lateral
- Foramen ovale

Sphenoid bone

- Foramen rotundum

Ethmoid bone [1]

- Horizontal (or cribriform) plate
- Crista galli
- Perpendicular plate
- Lateral masses (or labyrinths)
- Superior turbinates (or conchae)
- Middle turbinates (or conchae)
- Ethmoid sinuses

SKULL - Facial Bones [14]

Mandible [1]

- Body
- Angle
- Ramus
- Condylar process (or head)
- Neck
- Coronoid process
- Mandibular notch
- Alveolar processes
- Mandibular foramen
- Mental foramen

Maxillae [2]

- Maxillary sinus (or antrum of Highmore)
- Alveolar process
- Palatine process
- Incisive fossa (or foramen)
- Infraorbital foramen
- Inferior orbital fissure
- Lacrimal groove

Lacrimal bones [2]

Palatine bones [2]

Inferior nasal conchae (turbinates) [2]

Nasal Bones [2]

Zygomatic (or malar) bones [2]

- Temporal process (forming zygomatic arch with temporal bone)

Vomer [1]

SKULL - Facial Special Features

Nasal Septum formed by

- Perpendicular plate of ethmoid bone and the Vomer

Orbits formed by

- Frontal (roof of orbit)
- Ethmoid (medial wall)
- Lacrimal (medial wall)
- Sphenoid (lateral wall)
- Zygomatic (lateral wall)
- Maxillary (floor)
- Palatine (floor)

SKULL-Miscellaneous Bones [7]

Auditory ossicles [6]

- Malleus (or hammer) [2]
- Incus (or anvil) [2]
- Stapes (or stirrup) [2]

Hyoid [1]