

Axial skeleton: bones of skull, vertebral column and rib cage

Appendicular skeleton: bones of upper/lower limbs, pectoral/pelvic girdles

Axial skeleton: most are flat bones-making an outer covering for brain. Mandible is a moveable bone in the skull for chewing/talking. Facial bones are anterior (front).

Cranium: vault: up the sides, covering the top

Base: underneath to support the head.

Facial bones: openings for eyes, nose, mouth. Anchor the facial muscles for emotions

Cranium: 2 parietal and temporal lobes for both sides. Single frontal, occipital. Flat bones around the skull to support and give protection to the brain.

Frontal bone: (yellow) joins with parietal bones. Supraorbital foramen-where frontal bone is curving in, where eyebrows are sitting, hole on each side, passageway for vessels/nerves.

Glabella: between 2 supraorbital foramen, flat area that is heading down to structure of nose.

Parietal bone: knit together at the top of the head. Forming most of cranial vault.

Occipital bone: curves underneath. Contributes to posterior cranial fossa. Firmly attached to parietal and temporal bones. Spinal cord passes through hole (foramen magnum). Rounded, bumpy projections (occipital condyles), sit on top of first cervical vertebra. External occipital protuberance: circle on diagram. Where head begins to bend inwards.

Temporal bones: paired bones below parietal. Contribute to floor of cranium. 3 diff. Regions:

- 1) Squamous part: largest part. Fan shaped going up on either side of face. Zygomatic process: coming out from temporal part. Mandibular fossa: receives condyle of mandible to form temporomandibular joint. Fossa is a shallow depression.
- 2) Tympanic part: smaller, area immediately surrounding external acoustic meatus.
- 3) Petrous part: towards the back, curving underneath. Mastoid process: opening of ear, attachment of some muscles. Styloid process: thinner, pointed. Attachment area for muscles. Attachment site for muscles for the tongue and neck.

Sphenoid bone: (pink), contributes to anterior & middle cranial fossa.

Pterygoid process attaches muscles for pterygoid muscles-help chewing.

Passageways for vision and eye movement, nerves for moving eyes. Optic canal passageway for sensory optic nerves. Orbital fissure: passageways for cranial nerves associated with eye movement.

Ethmoid bone: in front of sphenoid bone. Cube that lies deep between orbits and nasal cavities.

Tiny holes for passageway of sensory nerves for the sense of smell (cribriform/olfactory)

foramina). Perpendicular plate contributes to nasal septum. Ethmoid sinuses on both sides. Left orbital plates are where ethmoid bones are contributing to the orbit. Superior, middle and inferior concha.

Major cranial sutures: 1) coronal suture: Up and around. Between frontal and two parietal bones. 2) squamous suture: either side of parietal and temporal. 3) Lambdoid suture: around back of head to link parietal bones with occipital. 4) sagittal suture: 2 parietal bones. Sutural bones: additional sites of ossification.

Facial bones: mandible and vomer are unpaired. Paired bones: maxillae (formation of palate), zygomatic, nasal, lacrimal, palatine (formation of palate), inferior, conchae. Does not fuse upper jaw: cleft palate.

Mandible: strongest and largest bone of face-moveable bone. Body is horizontal-contains chin; left & right rami at mandible angle. Coronoid process: located anteriorly Mandibular condyle: located posteriorly. Mandibular notch is a depression. Alveolar margin (upper part of jaw bone where teeth are embedded). Mandibular foramina (upper circle), mental foramina(lower). Temporomandibular joint is where the jaw locks.

Maxillary bones: central location. Articulates with facial bones to anchor itself. Alveolar margins holds teeth and upper jaw.

24: diagrams for exam/midterms.

Zygomatic bones: central location allows them to articulate with bones. Cheekbones. Contribute to structure of the orbit.

Nasal bones: give bridge of nose. Reach up to articulate w maxillary bones.

Lacrimal bones: tiny, the lacrimal sacs sits inside and collect tears. Lacrimal sacs drain into nasal cavity, contributes to orbit. Articulates w bones all around.

Orbits: For diagrams only name the bone. Dips/rims in. Know 7 bones, not other details,

Palatine: 2 L shaped, come across to form hard palate, vertical plates form nasal cavity and orbit. Vomer: behind where hard palate is located. Goes back quite far. Extends forward for nasal septum

Inferior nasal conchae: largest of conchae. Diagram for midterm\*\*\* slide 28. Sphenoid sinus. Don't need anterior nasal.

Maxillary: significant size in the anterior view. Easy diagram\*\*

Hyoid: sitting under chin. Supports tongue, gives attachment to muscles for swallowing/speech.

