

OSTEOLOGY 4

Bones of the skull: the occipital bone, the parietal bone, the frontal bone, the sphenoid, the ethmoid

STRUCTURES TO BE RECOGNIZED^{i,ii}

BONES

Occipital bone

- Foramen magnum
- Basilar part
 - Clivus
 - Pharyngeal tubercle
 - Groove for inferior petrosal sinus

Lateral part

- Squamous part of occipital bone
 - Mastoid border
 - Lambdoid border

Occipital condyle

Condylar canal

Hypoglossal canal

Condylar fossa

Jugular tubercle

Jugular notch

Jugular process

Intrajugular process

External occipital protuberance

External occipital crest

Highest nuchal line

Superior nuchal line

Occipital plane

Cruciform eminence

Internal occipital protuberance

Internal occipital crest

Groove for transverse sinus

Groove for sigmoid sinus

Groove for occipital sinus

Cerebral fossa

Cerebellar fossa

Parietal bone

Internal surface

- Groove for sigmoid sinus
- Groove for superior sagittal sinus
- Groove for middle meningeal artery
- Grooves for arteries

External surface

- Superior temporal line
- Inferior temporal line
- Parietal tuber (parietal eminence)

Occipital border

Squamosal border

Sagittal border

Frontal border

Frontal angle

Occipital angle

Sphenoidal angle

Mastoid angle

Parietal foramen

Frontal bone

Squamous part

- External surface
 - * Frontal tuber (frontal eminence)
 - * Superciliary arch
 - * Glabella
 - * Frontal suture (metoptic suture)
 - * Supraorbital margin
 - ** Supra-orbital notch/foramen
 - ** Frontal notch/foramen

- Temporal surface

* Parietal margin

* Temporal line

* Zygomatic process

- Internal surface

* Frontal crest

* Groove for superior sagittal sinus

* Foramen caecum

Nasal part

- Nasal spine

- Nasal margin

Orbital part

- Orbital surface

* Trochlear spine

* Trochlear fovea

* Fossa for lacrimal gland

Sphenoidal margin

Ethmoidal notch

Frontal sinus

- Opening of frontal sinus

- Septum of frontal sinuses

Sphenoid (sphenoidal bone)

Body

- Jugum sphenoidale (sphenoidal yoke)

- Limbus of sphenoid

- Prechiasmatic sulcus

- Sella turcica

* Tuberculum sellae

* Middle clinoid process

* Hypophysial fossa

* Dorsum sellae

* Posterior clinoid process

- Carotid sulcus

- Sphenoidal lingula

- Sphenoidal crest

- Sphenoidal rostrum

- Sphenoidal sinus

* Septum of sphenoidal sinuses

* Opening of sphenoidal sinus

- Sphenoidal concha

Lesser wing

- Optic canal

- Anterior clinoid process

- Superior orbital fissure

Greater wing

- Cerebral surface

- Temporal surface

- Infratemporal surface

- Infratemporal crest

- Maxillary surface

- Orbital surface

- Zygomatic margin

- Frontal margin

- Parietal margin

- Squamosal margin

- Foramen rotundum

- Foramen ovale

- Foramen spinosum

- Spine of sphenoid bone

- Sulcus of auditory tube

Pterygoid process

- Lateral plate

- Medial plate

- Pterygoid notch

- Pterygoid fossa

- Scaphoid fossa

- Vaginal process

* Palatovaginal groove

* Vomerovaginal groove

- Pterygoid hamulus

* Groove of pterygoid hamulus

- Pterygoid canal

Ethmoid (ethmoidal bone)

- Cribriform plate
- Cribriform foramina
- Crista galli
- Ala of crista galli
- Perpendicular plate
- Ethmoidal labyrinth
- Anterior ethmoidal cells
- Middle ethmoidal cells
- Posterior ethmoidal cells
- Orbital plate
- Supreme nasal concha
- Superior nasal concha
- Middle nasal concha

- Ethmoidal bulla
- Uncinate process
- Ethmoidal infundibulum
- Hiatus semilunaris

OTHER**Cranial bones**

- External table
- Diploe
- Diploic canals
- Internal table
- Granular foveolae
- Impressions of cerebral gyri

- Arterial grooves

Foramina

- Jugular foramen
- Foramen lacerum

Fissures

- Petro-occipital fissure
- Sphenopetrosal fissure

Joints

- Spheno-occipital
synchondrosis/synostosis

ⁱ in specimens and models

ⁱⁱ All the above structures are to be found and recognized during your laboratory class. Nevertheless, knowledge about other structures mentioned in your textbooks and atlases is obligatory as well. We can ask about them in the intermediate test and the final examination test. Some textbook figures can appear in the MCQ questions.