

The skull (cranium)

I. **Neurocranium** (the container for the brain and the sense organs)

II. **Splanchnocranium** (viscerocranium) (contains the initial portions of the gastrointestinal and respiratory tracts and substructure for the face)

Boundary - from the root of the nose extends along the upper margin of the orbits to the external acoustic meatus

Neurocranium consists of:

frontal bone – *os frontale*

parietal bones – *ossa parietalia*

occipital bone – *os occipitale*

sphenoid bone – *os sphenoidale*

temporal bone – *ossa temporalia*

ethmoidal bone – *os ethmoidale*

Frontal bone – *Os frontale*

1. squama – *squama ossis frontalis*

2. orbital plates – *partes orbitales*

3. nasal part – *pars nasalis*

Squama (*squama ossis frontalis*):

External surface:

coronal suture – *sutura coronalis*

frontal eminence – *tuber frontale*

glabella

superciliary arch – *arcus superciliares*

supraorbital margin – *margo supraorbitalis*

frontal and supraorbital notches – *incisura frontalis et supraorbitalis*

zygomatic process – *processus zygomaticus*

inferior temporal line – *linea temporalis inferior*

Internal surface:

frontal crest – *crista frontalis*

groove for superior sagittal sinus – *sulcus sinus sagittalis superioris*

impressions digitatae / gyrorum

juga cerebralia

foramen caecum

arterial sulci (grooves) – *sulci arteriosi*

frontal sinus – *sinus frontalis*

septum of frontal sinus – *septum sinuum frontaliuum*

opening of frontal sinus to the nasal cavity – *apertura sinuum frontaliuum*

orbital plates – *partes orbitales* (a pit for lacrimal gland – *fossa glandulae lacrimalis*)

trochlear spine or pit – *fovea trochlearis (spina trochlearis)*

anterior and posterior ethmoidal foramen – *foramen ethmoidale anterius et posterius*

nasal part (*pars nasalis*)

ethmoidal notch (*incisura ethmoidalis*)

Parietal bones – *ossa parietalia*

coronal suture – *sutura coronalis*

sagittal suture – *sutura sagittalis*

lambdoid suture – *sutura lambdoidea*

squamous suture – *suturae squamosae*

External surface:

parietal eminence – *tuber parietale*

superior temporal line – *linea temporalis superior*

inferior temporal line – *linea temporalis inferior*

parietal foramen – *foramen parietale*

frontal angle – *angulus frontalis*

sphenoidal angle – *angulus sphenoidalis*

occipital angle – *angulus occipitalis*
mastoid angle – *angulus mastoideus*

Internal surface:

grooves for artery – *sulci arteriae meningeae mediae*
groove of superior sagittal sinus – *sulcus sinus sagittalis superioris*
foveolae granulares
groove of sigmoid sinus – *sulcus sinus sigmoidei*

Sphenoid bone – *Os sphenoidale*

Body – *corpus*
Lesser wings – *alae minores*
Alae majores – *greater wings*
Pterygoid processes – *processus pterygoidei*

Body of sphenoid bone – *corpus ossis sphenoidalis*

sphenooccipital synchondrosis or synostosis – *synchondrosis sphenooccipitalis (synostosis sphenooccipitalis)*
sphenoidal sinus – *sinus sphenoidales*
opening of sphenoidal sinus – *apertura sinus sphenoidalis*
septum of sphenoid sinus – *septum sinuum sphenoidalium*
sphenoidal crest – *crista sphenoidalis*
sphenoidal rostrum – *rostrum sphenoidale*
hypophysial fossa – *fossa hypophysialis*
turkish saddle – *sella turcica*
dorsum sellae
posterior clinoid processes – *processus clinoides posteriores*
groove for internal carotid artery – *sulcus caroticus*
sphenoidal lingula – *lingula sphenoidalis*
chiasmatic groove – *sulcus praechiasmaticus*
optic canal – *canalis opticus*

lesser wings – *alae minores*
anterior clinoid processes – *processus clinoides anteriores*

Greater wings – *Alae majores*

cerebral surface of greater wings – *facies cerebralis*
orbital surface of greater wings – *facies orbitalis*
temporal surface of greater wings – *facies temporalis*
infratemporal surface of greater wings – *facies infratemporalis*
maxilar surface of greater wings – *facies maxillaris*
foramen rotundum
foramen ovale
foramen spinosum (externally – sphenoidal spine – *spina ossis sphenoidalis*)
superior orbital fissure – *fissura orbitalis superior*

Pterygoid processes – *processus pterygoidei*

lateral plate – *lamina lateralis*
medial plate – *lamina medialis*
pterygoid hamulus – *hamulus pterygoideus*
pterygoid fossa – *fossa pterygoidea*
scaphoid fossa – *fossa scaphoidea*
pterygoid notch – *incisura pterygoidea*
pterygoid canal – *canalis pterygoideus*

Occipital bone – *Os occipitale*

lateral portions – *partes laterales*
basilar portions – *pars basilaris*
occipital squama – *squama occipitalis*

Basilar part – *Pars basilaris*

sphenooccipital synchondrosis (synostosis) – *synchondrosis (synostosis) sphenooccipitalis*

clivus

pharyngeal tubercle – *tuberculum pharyngeum*

petrooccipital fissure – *fissura petrooccipitalis*

Foramen magnum

Occipital squama – *Squama occipitalis*

external surface:

external occipital protuberance – *protuberantia occipitalis externa*

external occipital crest – *crista occipitalis externa*

highest nuchal line – *linea nuchae suprema*

superior nuchal line – *linea nuchae superior*

inferior nuchal line – *linea nuchae inferior*

nuchal area (surface) – *planum nuchale*
planum occipitale

endocranial surface:

internal occipital protuberance – *protuberantia occipitalis interna*

eminentia cruciformis – *cruciate eminence*

groove for superior sagittal sinus – *sulcus sinus sagittalis superioris*

groove for transverse sinus – *sulcus sinus transversi*

groove for sigmoid sinus – *sulcus sinus sigmoidei*

internal occipital crest – *crista occipitalis interna*

cerebral fossae for the occipital lobe of the brain – *fossae cerebrales*

cerebellar fossae for cerebellum – *fossae cerebellares*

Temporal bone – *Os temporale*

Squama – *Pars squamosa*

Petrosus part (pyramid) – *Pars petrosa (pyramis)*

Mastoid part – *Pars mastoidea*

Tympanic part – *Pars tympanica*

Styloid process – *Processus styloideus*

Squama – *Pars squamosa*

External surface:

zygomatic process – *processus zygomaticus*

inferior temporal line – *linea temporalis inferior*

supramastoid crest – *crista supramastoidea*

suprameatal spine – *spina suprameatum*

mandibular fossa – *fossa mandibularis*

articular tubercle – *tuberculum articulare*

internal surface:

arterial sulci – *sulci arteriosi*

juga cerebralia

impressiones gyrorum

Petrosus part (pyramid) – *Pars petrosa (pyramis)*

apex of pyramid – *apex pyramidis*

foramen lacerum

anterior surface (cerebral) – *facies anterior (cerebralis)*

superior margin (pyramidal crest) – *margo superior (crista pyramidis)*

sulcus for superior petrosal sinus – *sulcus sinus petrosi superioris*

arcuate eminence – *eminentia arcuata*

tegmen tympani

hiatus of canal for greater petrosal nerve – *hiatus canalis n. petrosi majoris*

groove for greater petrosal nerve – *sulcus n. petrosi majoris*

hiatus of canal for lesser petrosal nerve – *hiatus canalis n. petrosi minoris*

groove for lesser petrosal nerve – *sulcus n. petrosi minoris*

trigeminal impression – *impressio trigemini*

internal carotid foramen – *apertura interna canalis carotici*
 musculotubar canal – *canalis musculotubarius*
posterior surface of pyramid – *facies posterior pyramidis*:
 sulcus for inferior petrosal sinus – *sulcus sinus petrosi inferioris*
 internal acoustic foramen – *porus acusticus internus*
 internal acoustic meatus – *meatus acusticus internus*
 bottom of internal acoustic meatus – *fundus meatus acustici interni*
 transverse crest – *crista transversa*
 entrance for the facial nerve – *area n. facialis (introitus)*
 subarcuate fossa – *fossa subarcuata*
 vestibula aquaeductus – *apertura externa aquaeductus vestibuli*
 jugular notch (jugular foramen) – *incisura jugularis (foramen jugulare)*
 external foramen of cochlear canal – *apertura externa canaliculi cochleae*
 groove for sigmoid sinus – *sulcus sinus sigmoidei*
inferior surface of pyramid – *facies inferior pyramidis*
 external carotid foramen – *apertura externa canalis carotici*
 jugular fossa – *fossa jugularis*
 mastoid canal – *canaliculus mastoideus*
 external foramen of tympanic canaliculus – *apertura externa canaliculi tympanici*
Styloid process – *Processus styloideus*
 styломastoid foramen – *foramen stylomastoideum*
Tympanic part – *Pars tympanica*:
 external acoustic meatus – *meatus acusticus externus*
 external acoustic foramen – *porus acusticus externus*
 tympanomastoid fissure – *fissura tympanomastoidea*
 petrotympanic fissure – *fissura petrotympanica*
 tympanic groove (sulcus) – *sulcus tympanicus*
 tympanic notch – *incisura tympanica*
crista tympanica – tympanic crest
Mastoid part – *Pars mastoidea*
 mastoid process – *processus mastoideus*
cellulae mastoideae
 groove for sigmoid sinus – *sulcus sinus sigmoidei*
 mastoid foramen – *foramen mastoideum*
 mastoid notch (digastric fossa) – *incisura mastoidea*
 groove for occipital artery – *sulcus a. occipitalis*

Canals of the temporal bone (*os temporale*)

1. Carotid canal – *Canalis caroticus*
2. Caroticotympanic canals – *Canaliculi caroticotympanici*
3. Canal for facial nerve – *Canalis n. facialis*
4. Canal for chorda tympani – *Canaliculus chordae tympani*
5. Mastoid canal – *Canaliculus mastoideus*
6. Tympanic canal – *Canaliculus tympanicus*
7. Musculotubarius canal – *Canalis musculotubarius*
8. Cochlear canal – *Canaliculus cochleae*
9. Vestibular canal – *Canaliculus vestibuli*

Ethmoid bone – *Os ethmoidale*

Cribriform plate of ethmoid bone – *lamina cribrosa*
 Perpendicular plate of ethmoid – *lamina perpendicularis*
 Labyrinthi ethmoidales

Cribriform plate of ethmoid: – *Lamina cribrosa*

crista galli

Perpendicular plate of ethmoid – *Lamina perpendicularis*

Labyrinthi ethmoidales

cellulae ethmoidales

orbital lamina (anterior and posterior ethmoid foramen) – *lamina orbitalis (foramen ethmoidale anterius et posterius)*

superior nasal turbinate – *concha nasalis superior*

middle nasal turbinate – *concha nasalis media*

uncinate process – *processus uncinatus*

ethmoidal bulla – *bulla ethmoidalis*