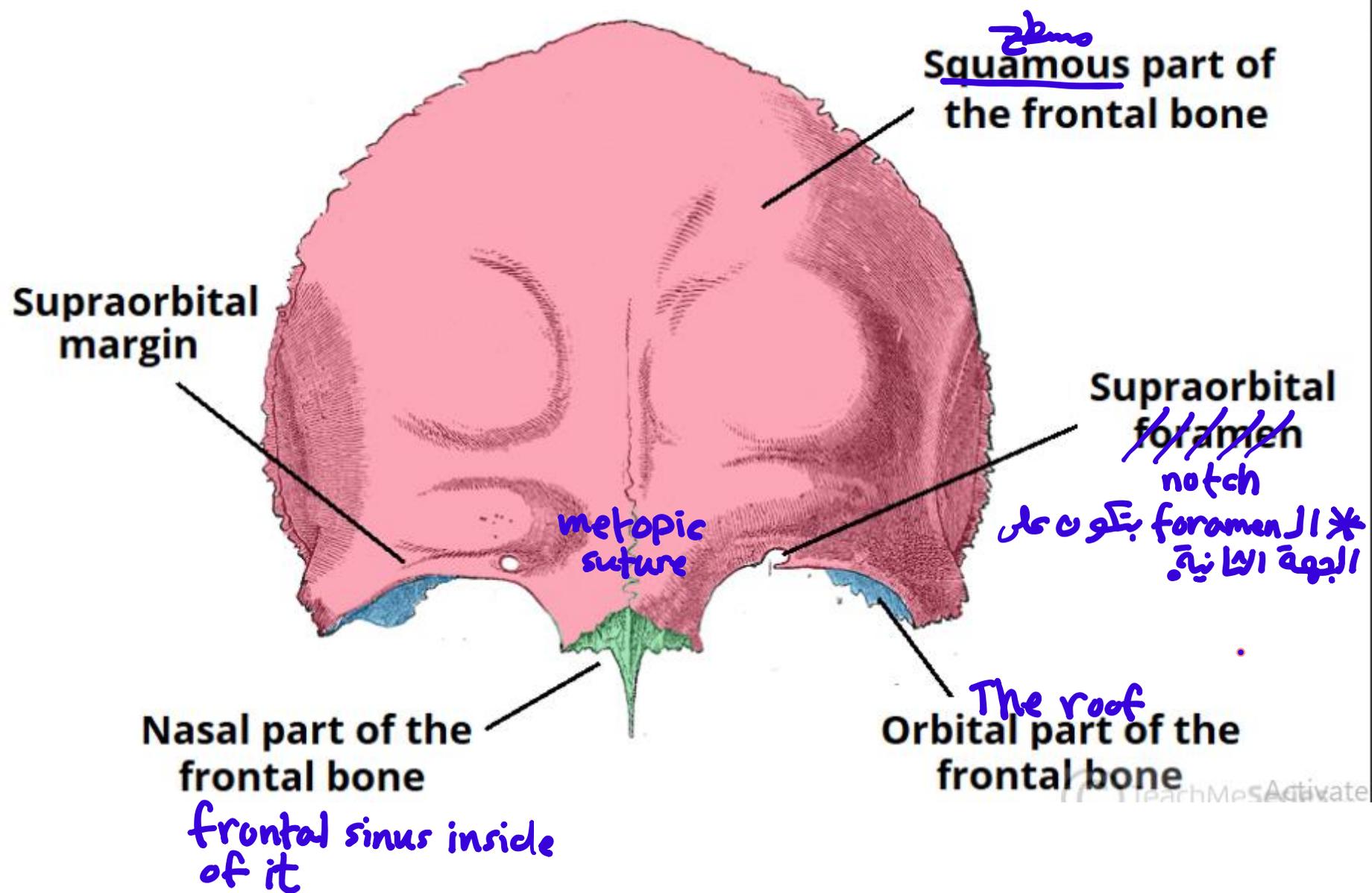
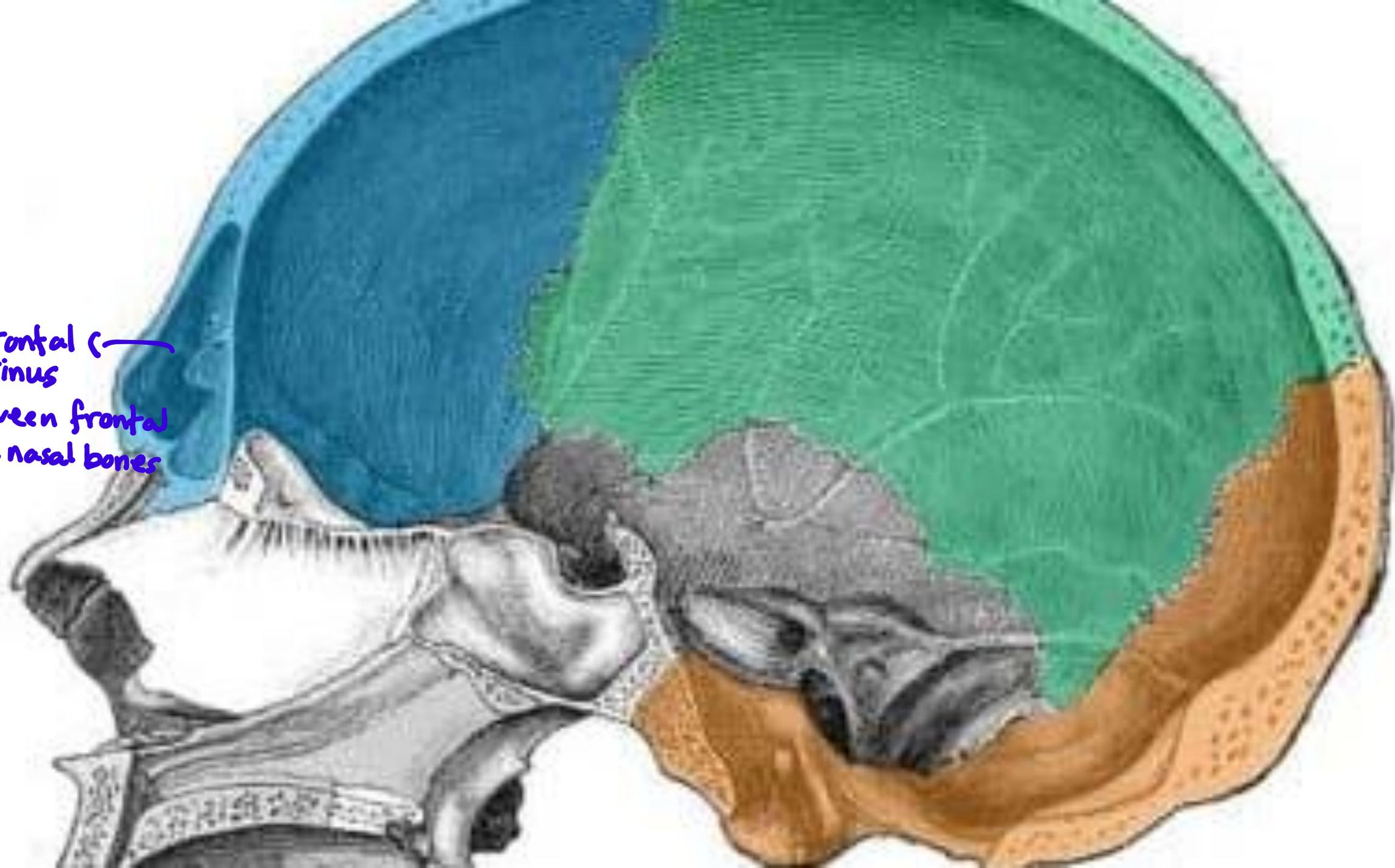


<https://radiopaedia.org/cases/skull-illustrations#image-65721036>

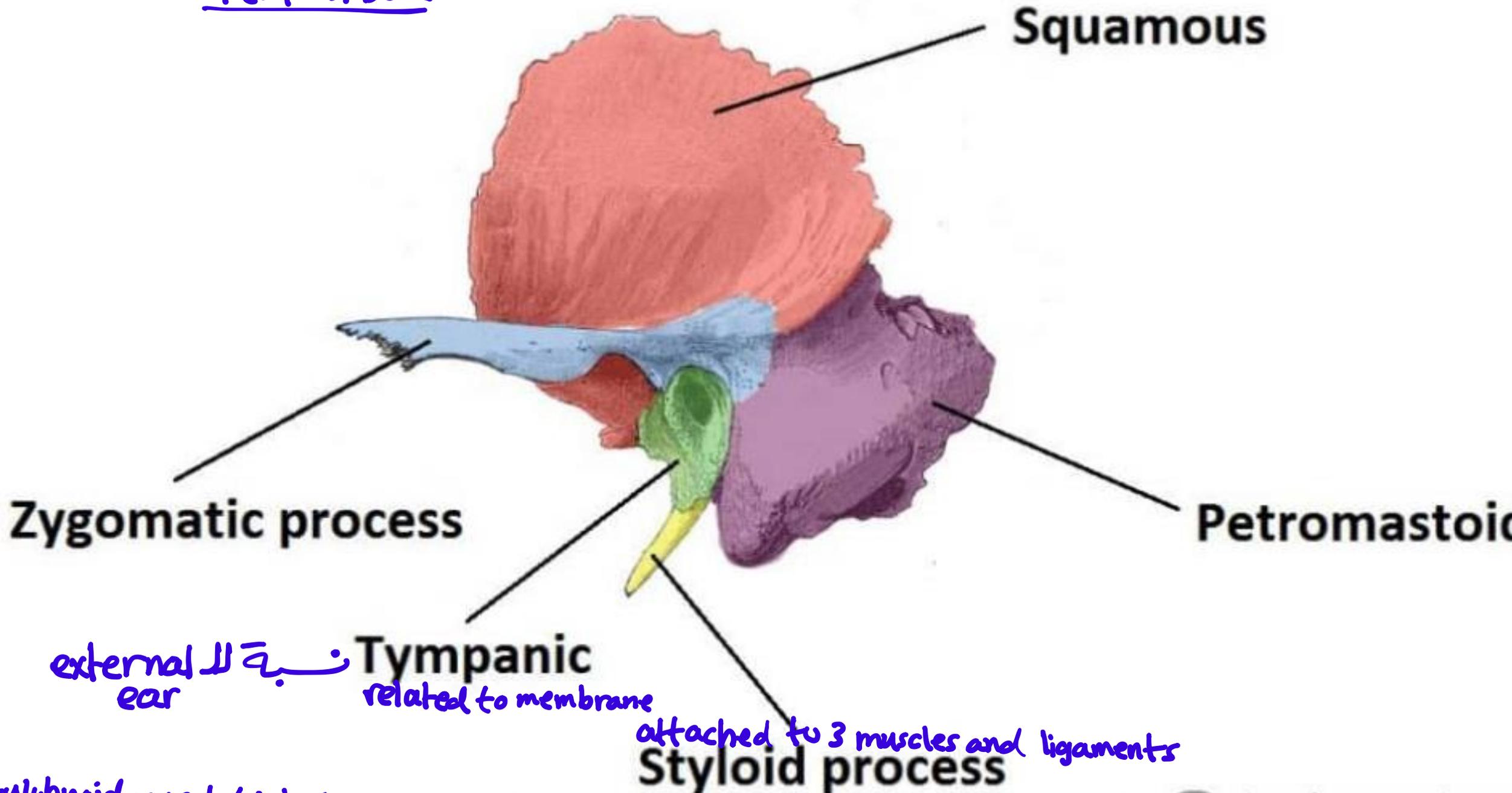
# frontal bone



frontal sinus  
between frontal  
and nasal bones



Temporal bone



Squamous

Zygomatic process

Petromastoid

external **نبة** ear

**Tympanic**  
related to membrane

attached to 3 muscles and ligaments  
**Styloid process**

Stylohyoid muscle/styloglossus muscle/stylopharyngeus muscle/stylomanibular and stylohyoid ligament



Aditus to  
Mastoid Antrum

بُطَيِّه/مدخل

Mastoid  
Air Cells

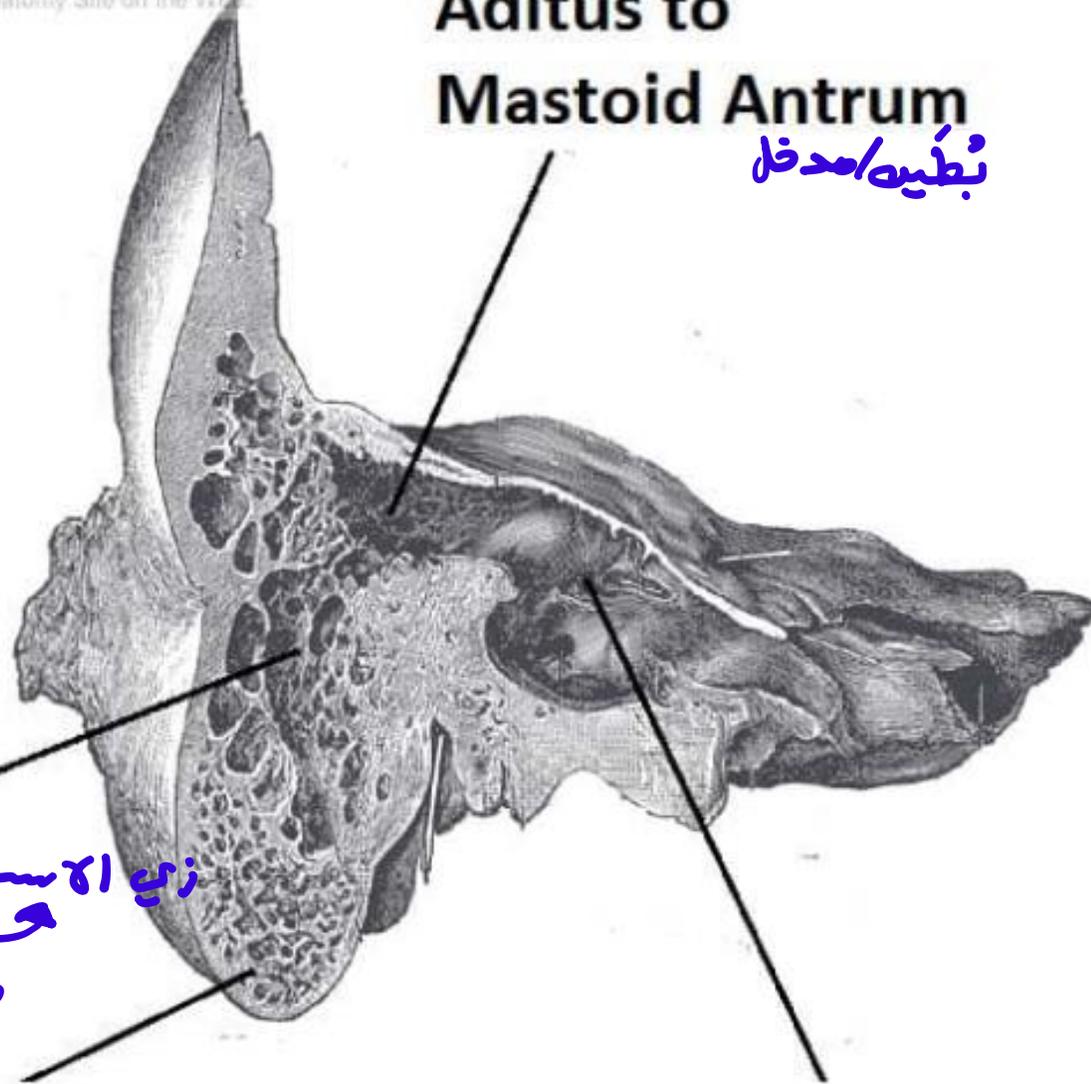
زيب الاسفنج

مثل sinuses

بكون فتحة واسعة

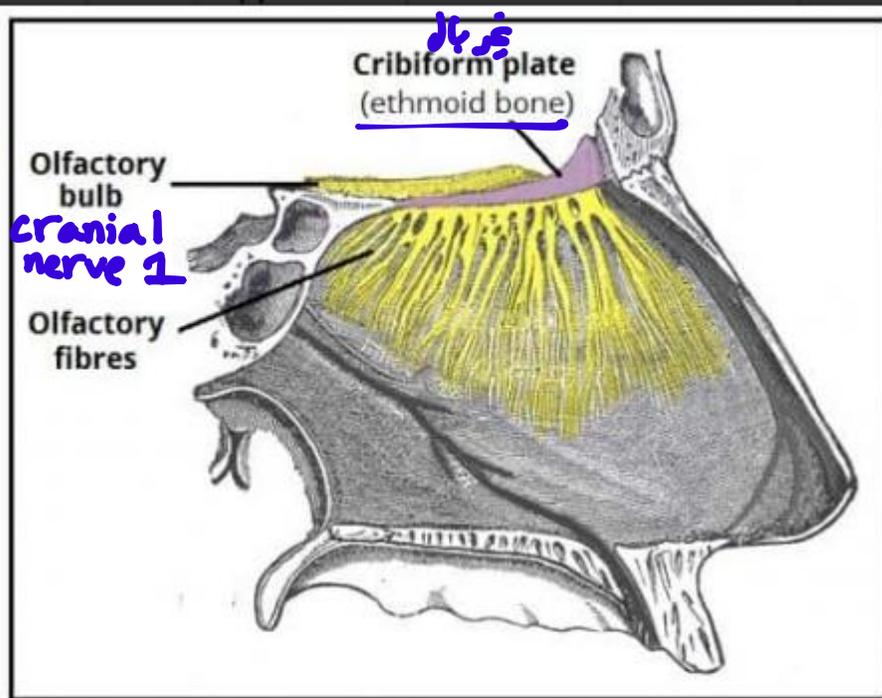
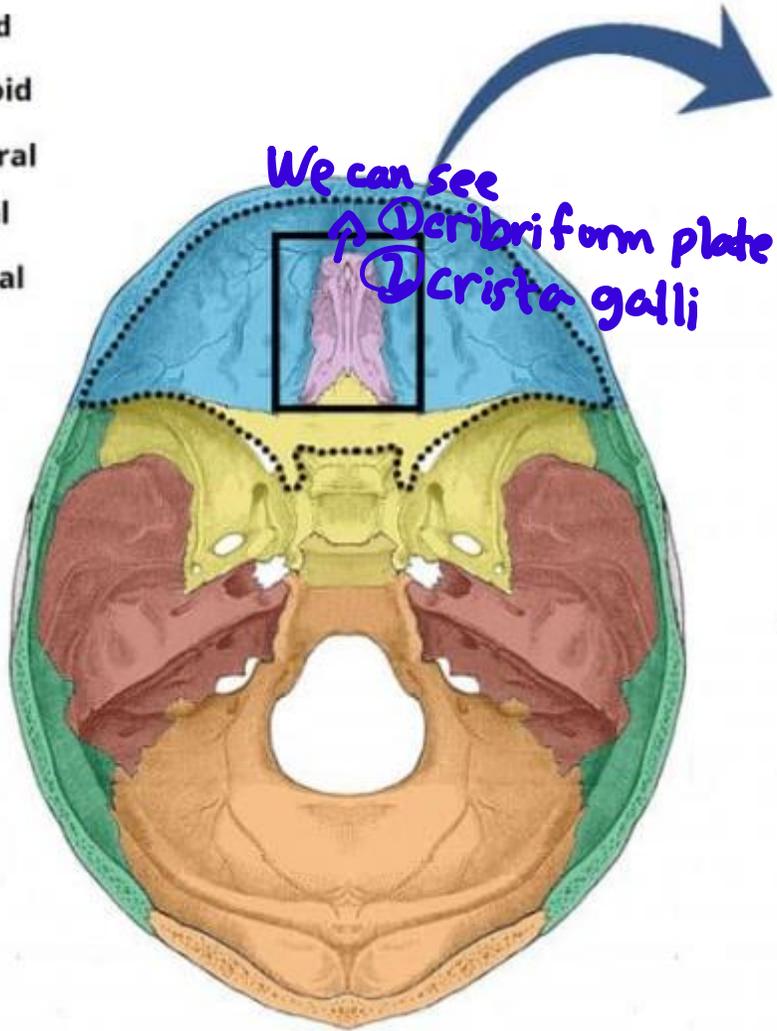
Mastoid Process

Tympanic Cavity



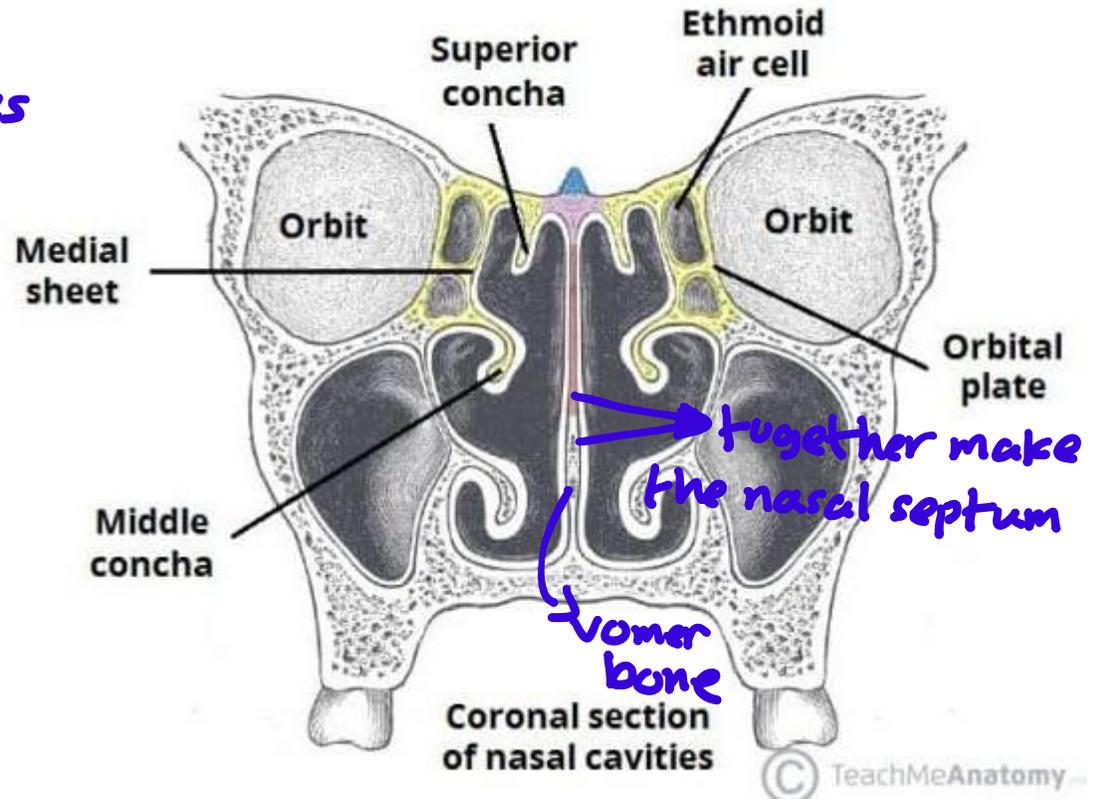
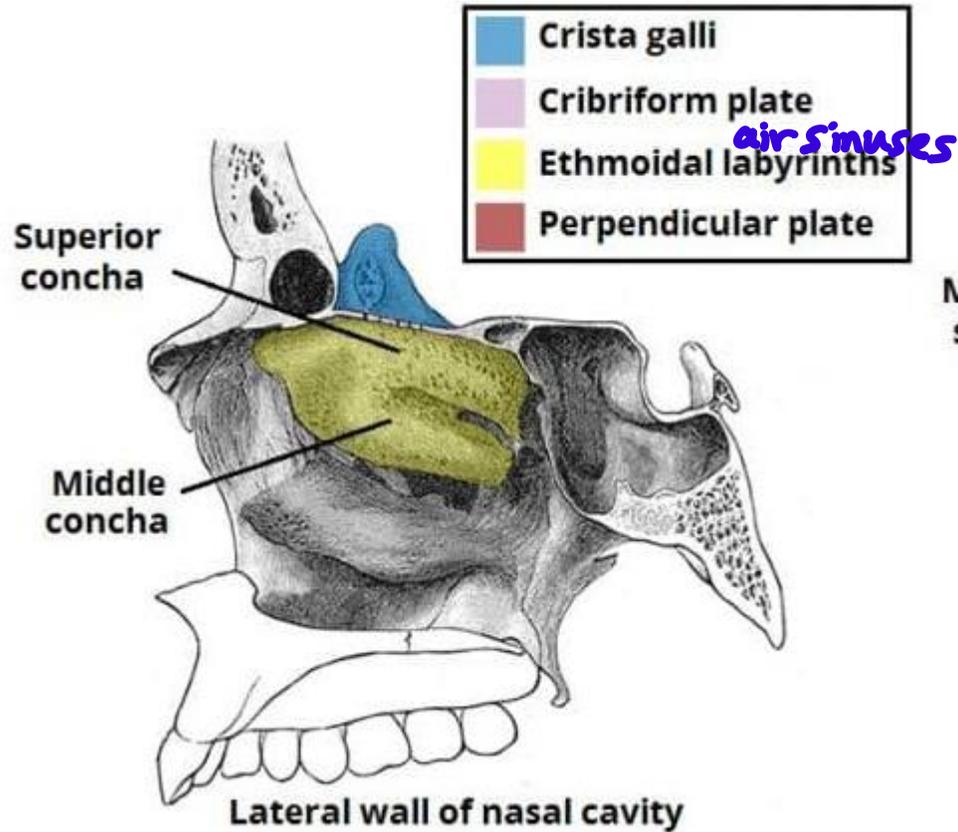
- Frontal
- Ethmoid
- Sphenoid
- Temporal
- Parietal
- Occipital

interior view



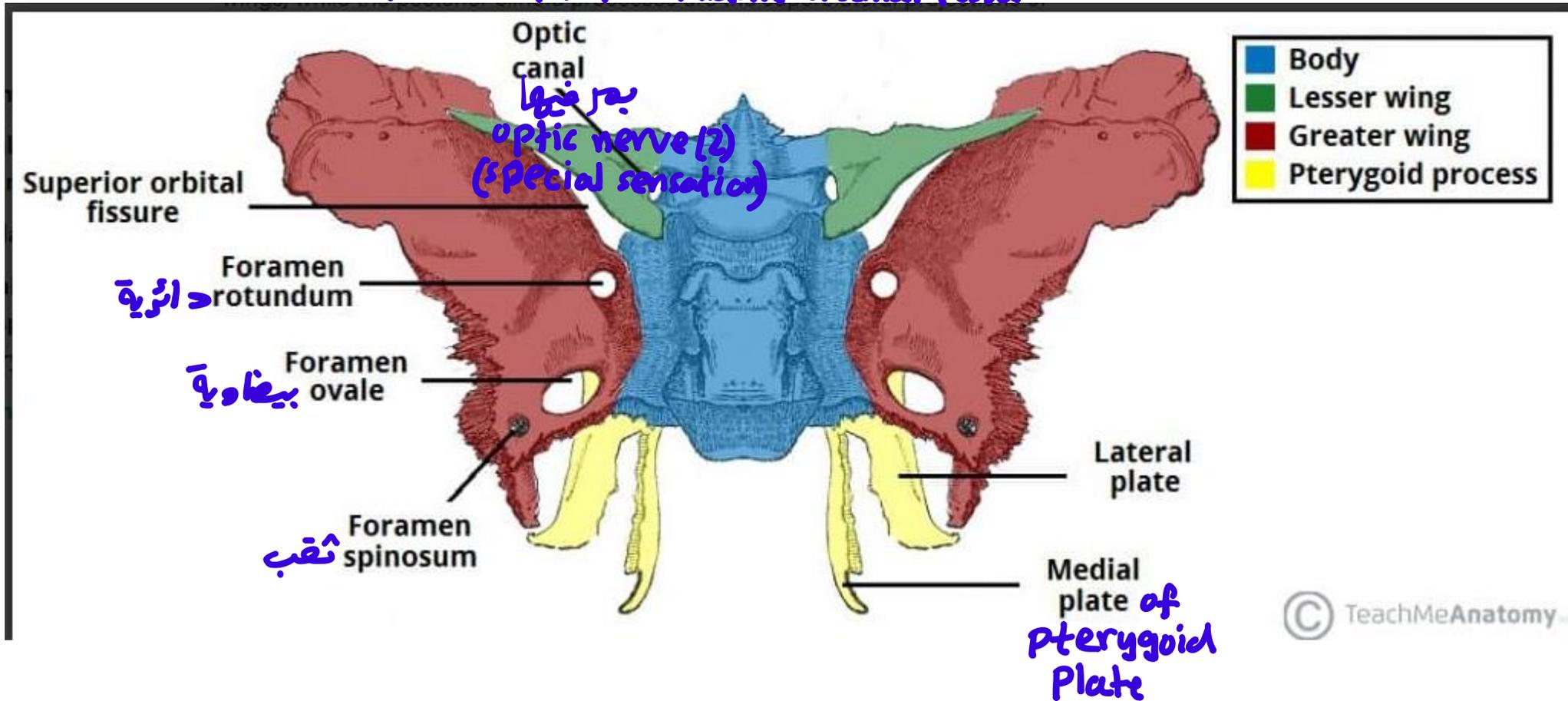
# Interior of Nasal cavity

\* inferior concha is separated from the ethmoid bone.

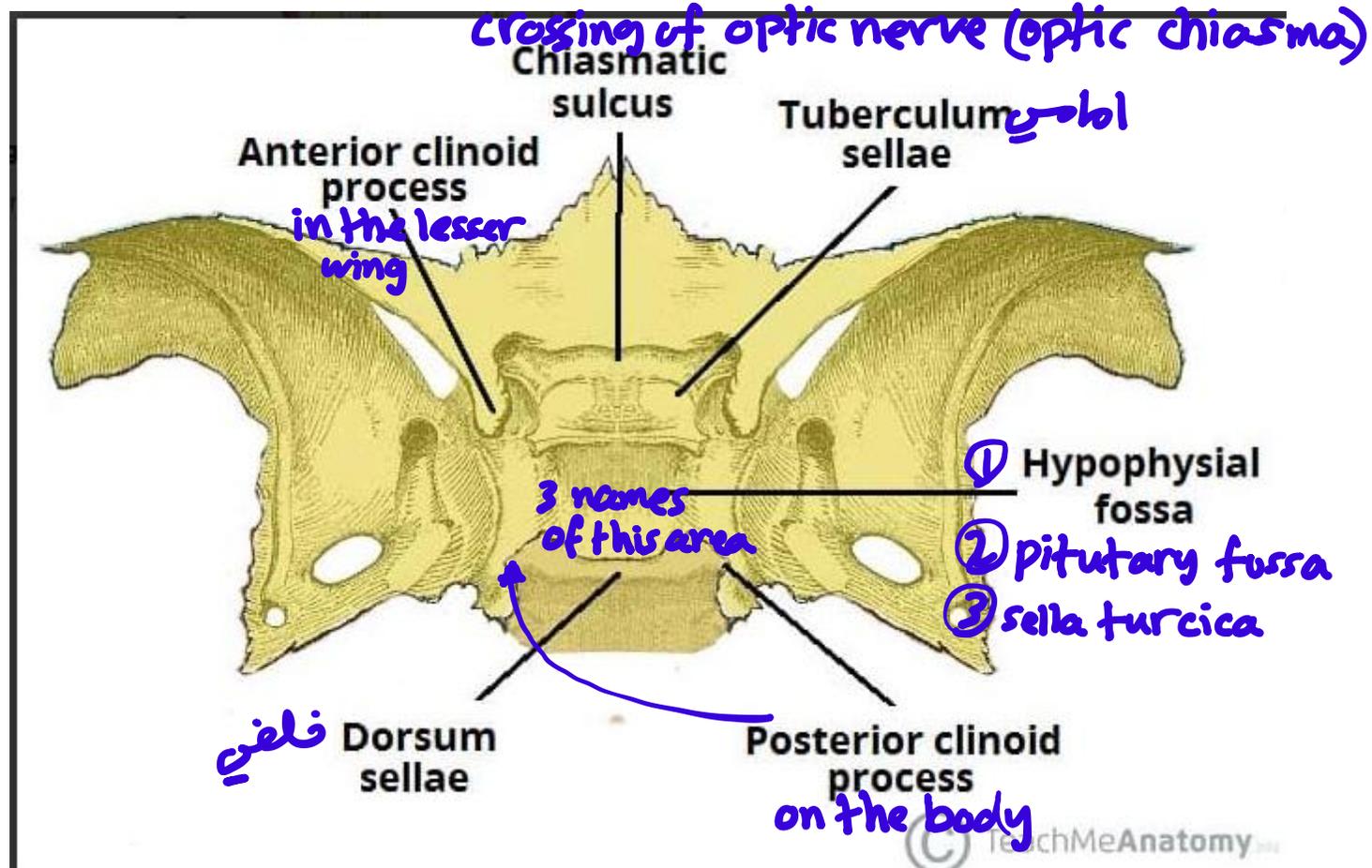


sphenoid bone

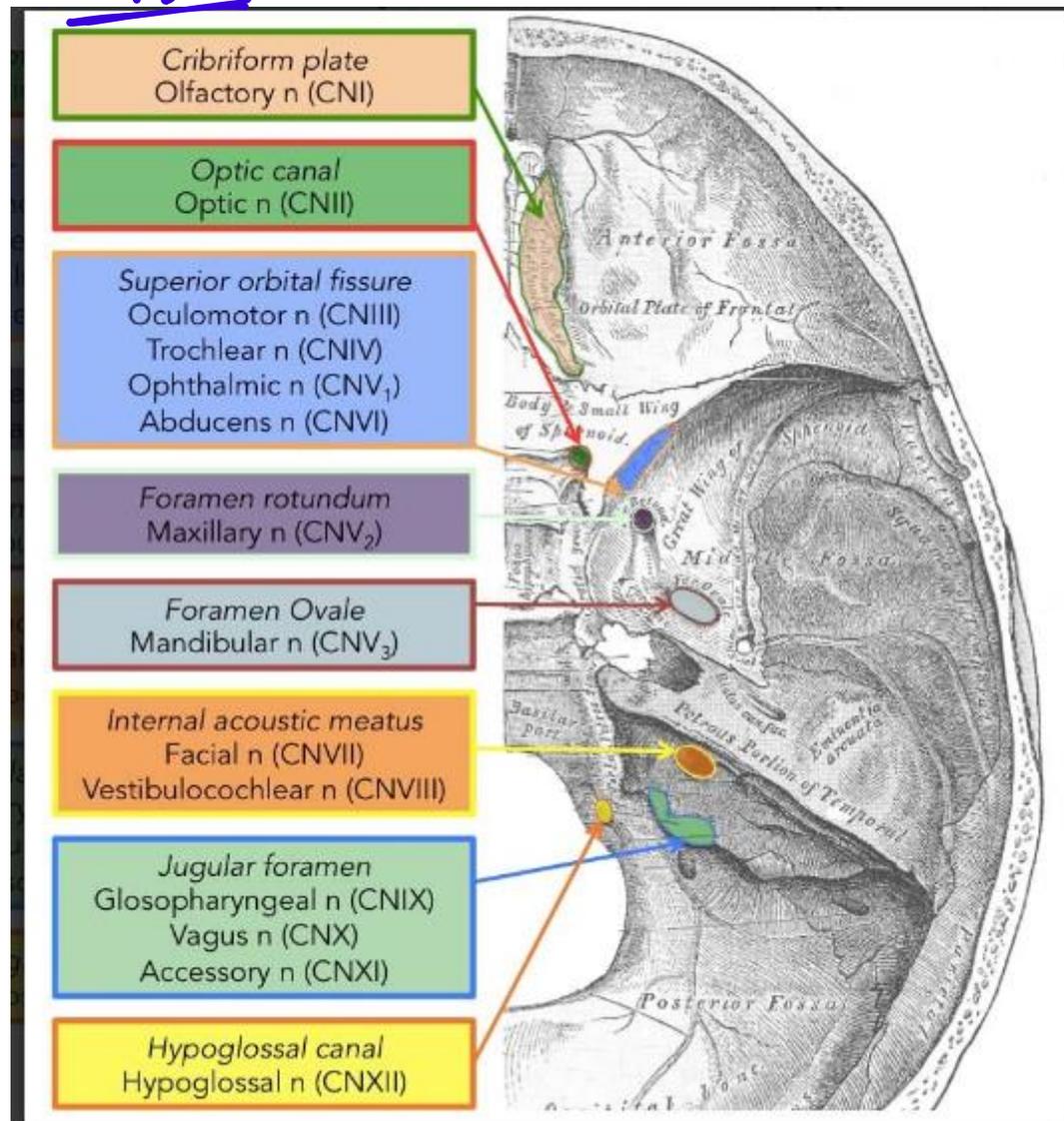
\* it is located in middle cranial fossa



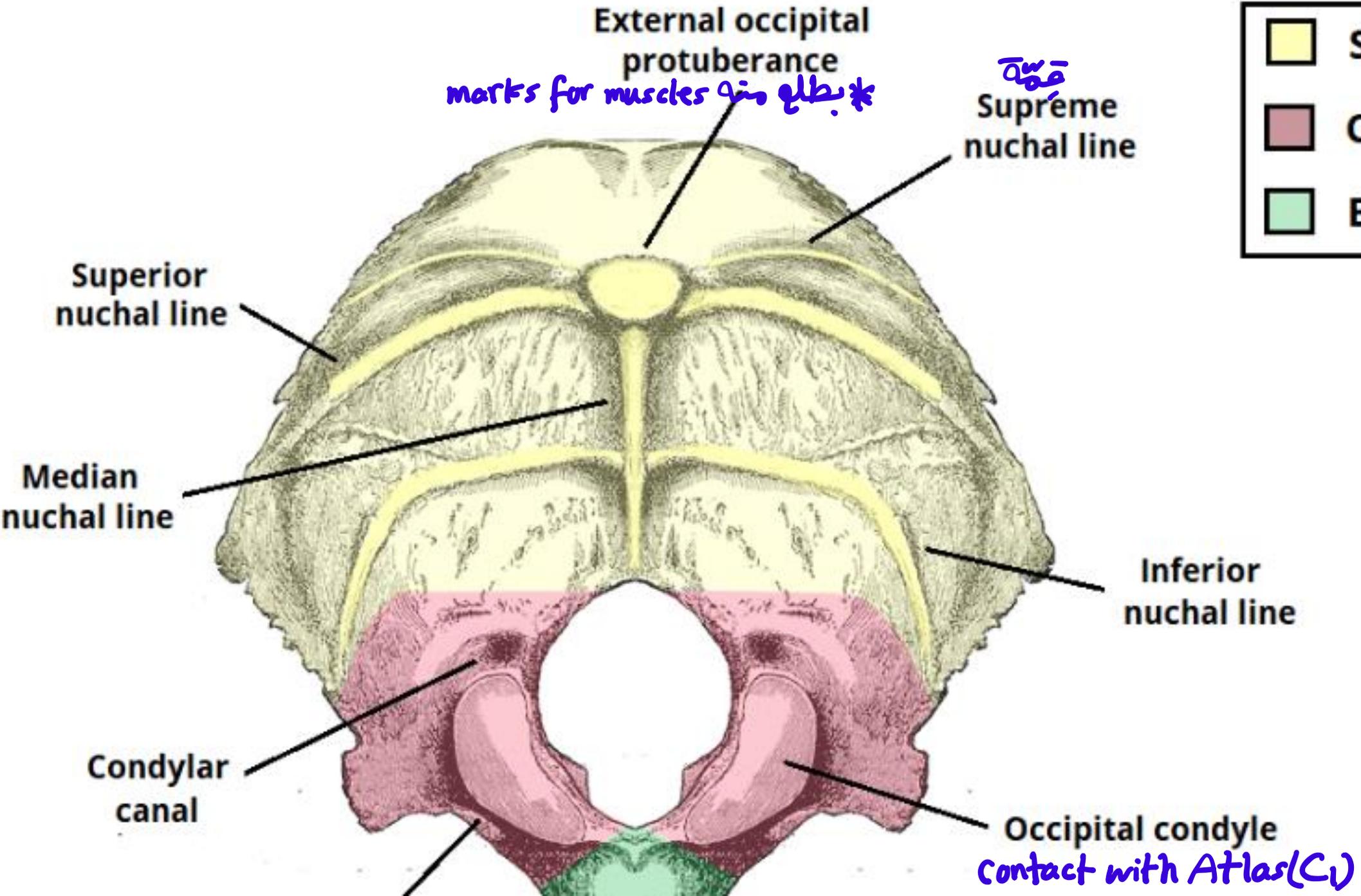
sphenoid bone



# مؤجلة



	Squamous
	Condylar
	Basilar



Anterior view of occipital

Groove for superior sagittal sinus

it extends with sagittal suture

Internal occipital protuberance

marks for veins **بطلق منه** (sinuses)

Internal occipital crest

	Squamous
	Condylar
	Basilar

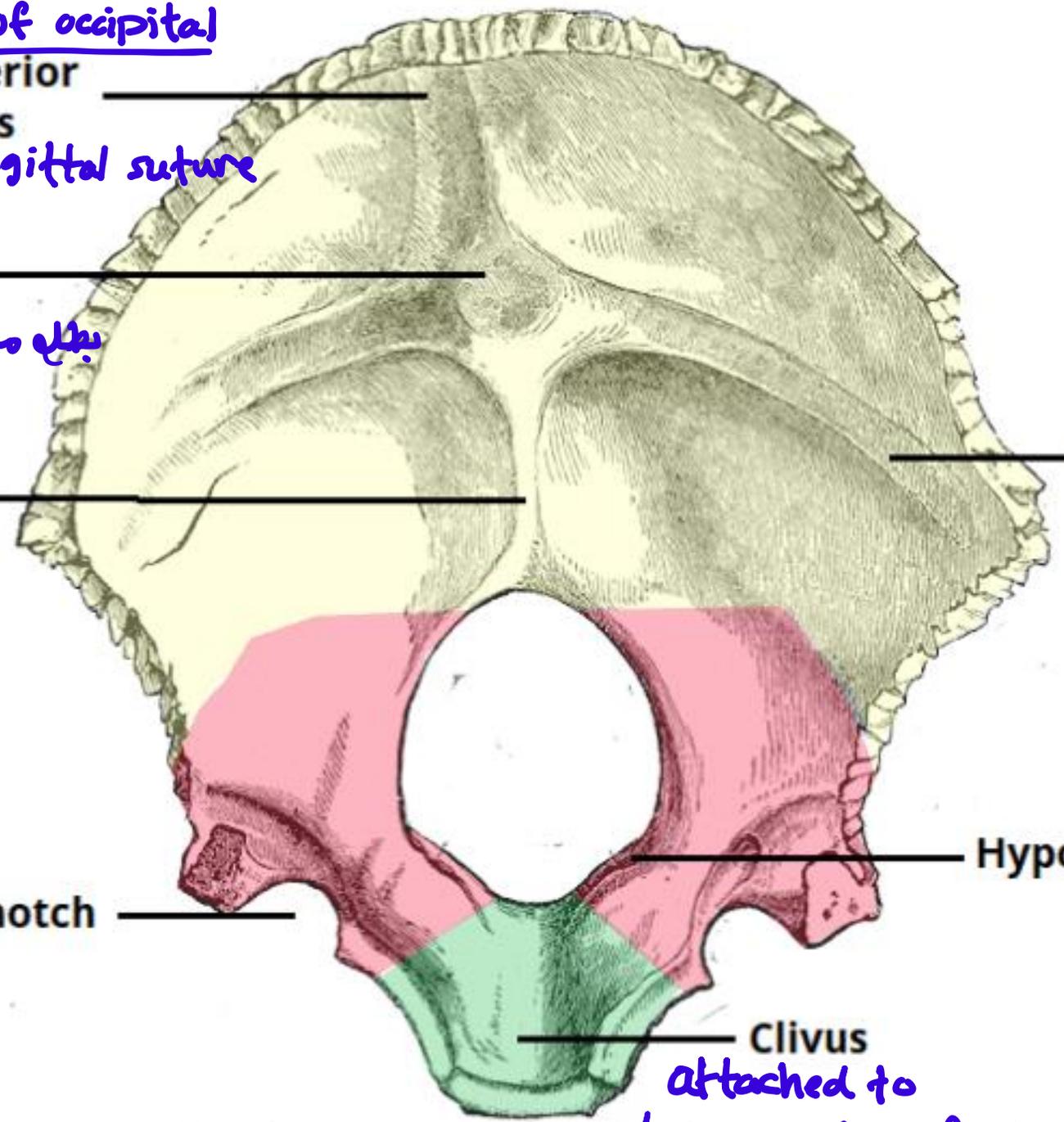
Groove for transverse sinus **افقي**

Jugular notch

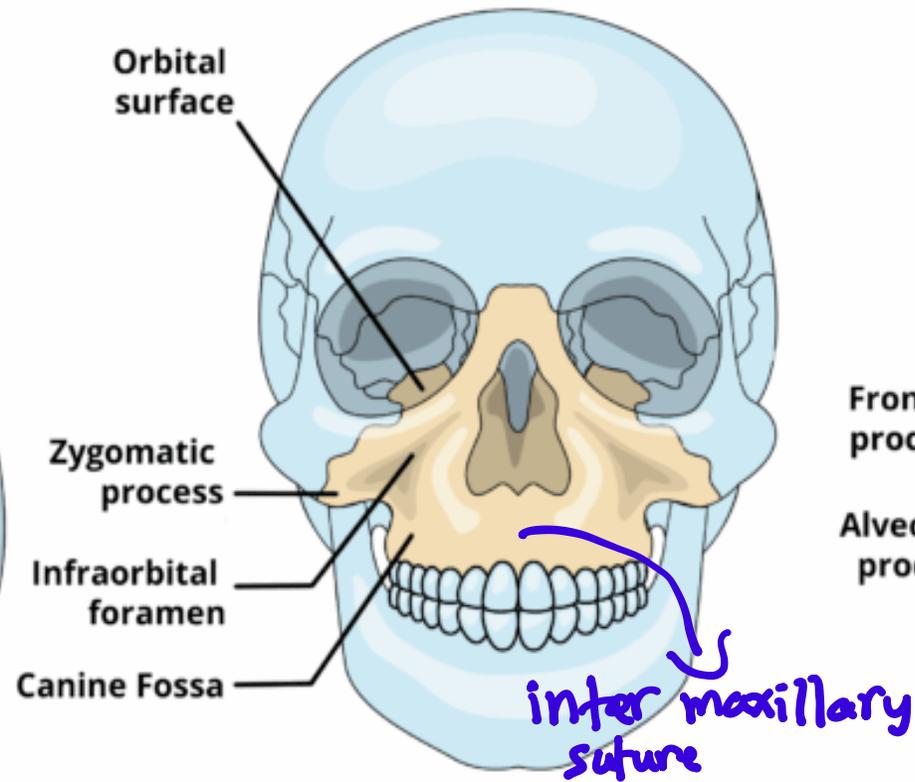
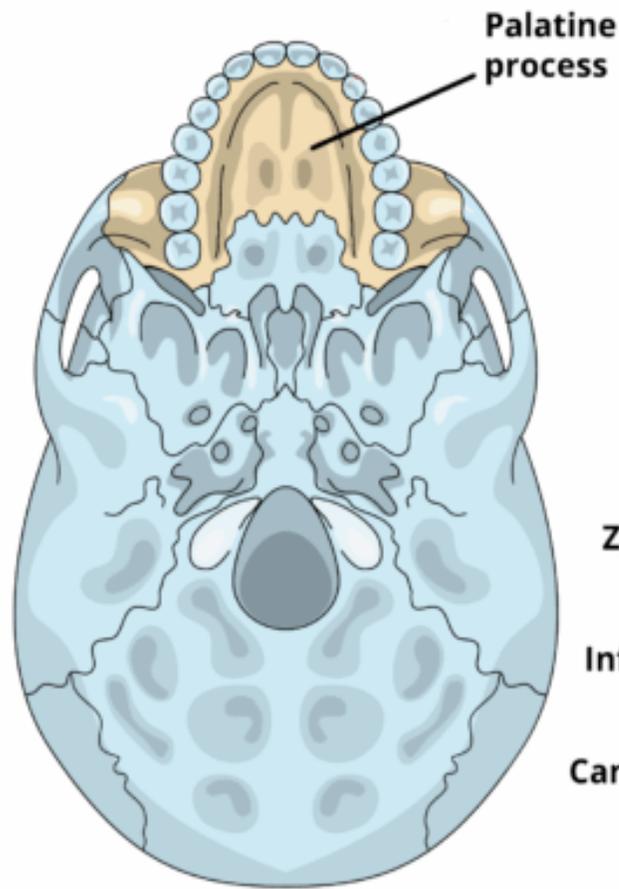
Hypoglossal canal

Clivus

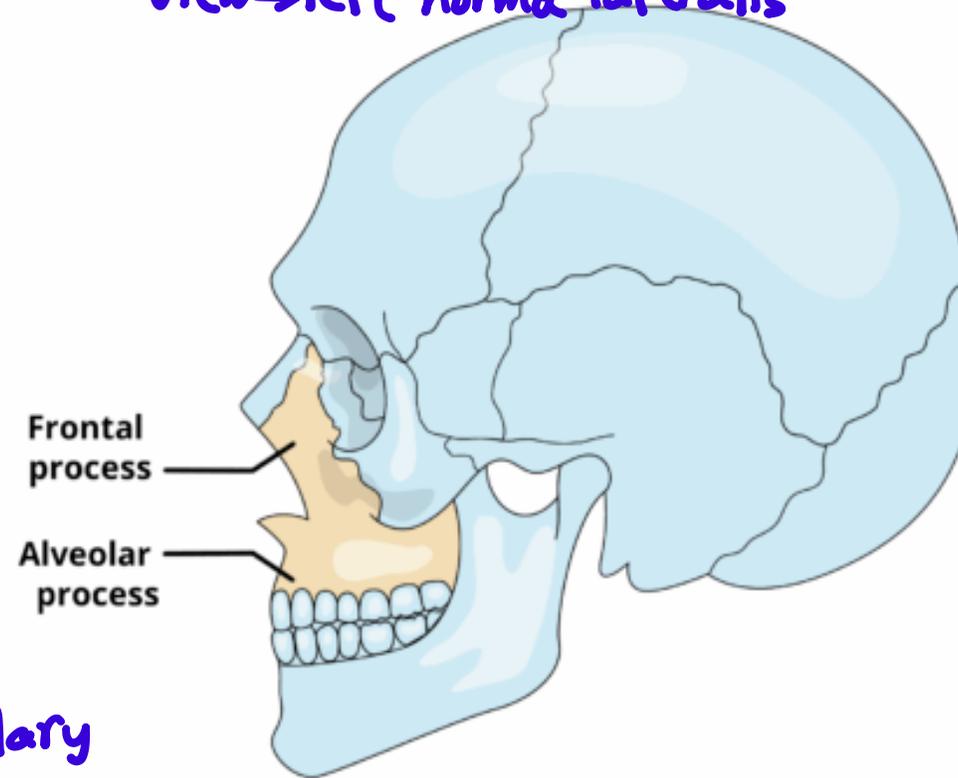
Attached to **clarsum sellae** of sphenoid bone

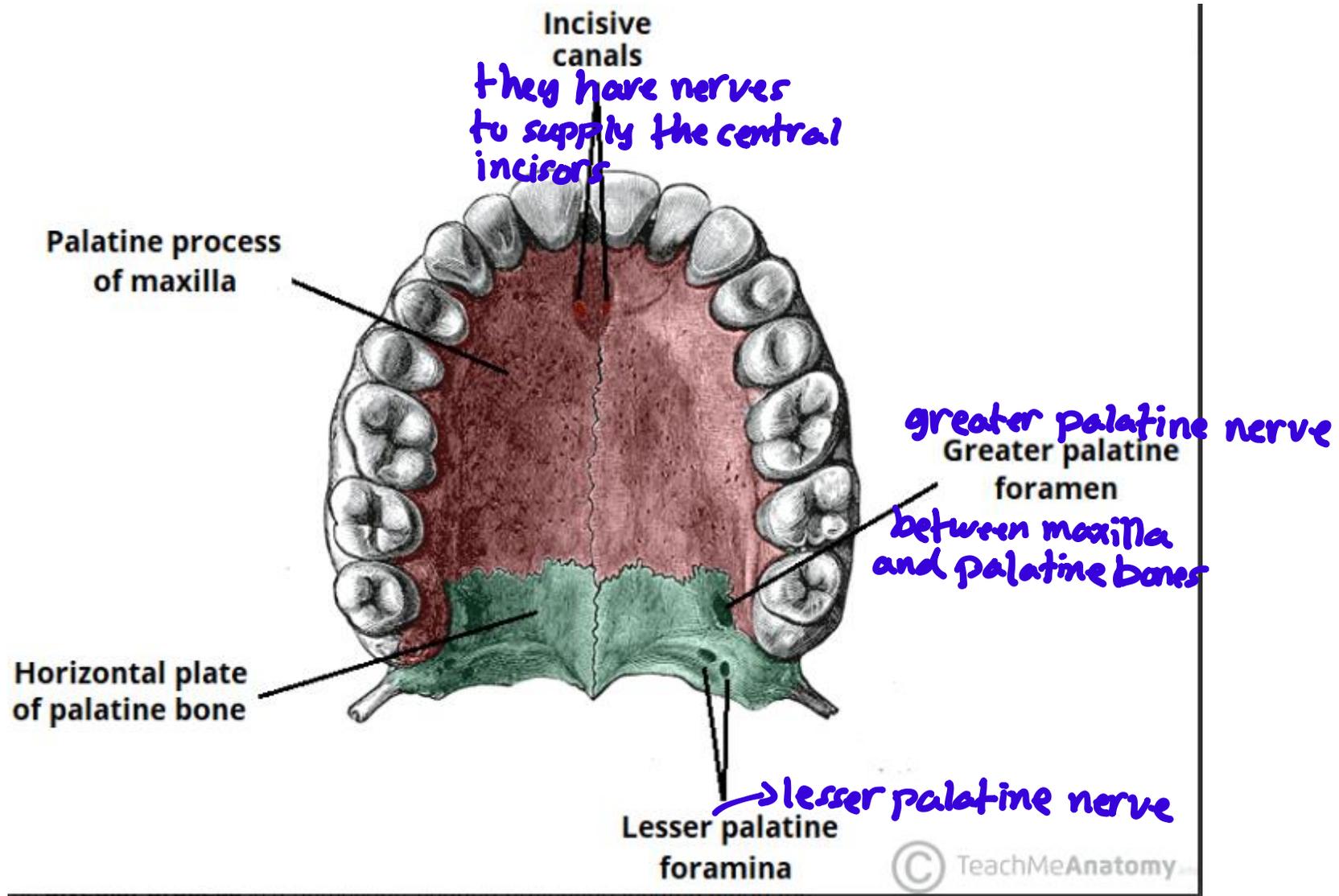


as supra orbital foramen, infra orbital foramen and mental foramen are on the same line.

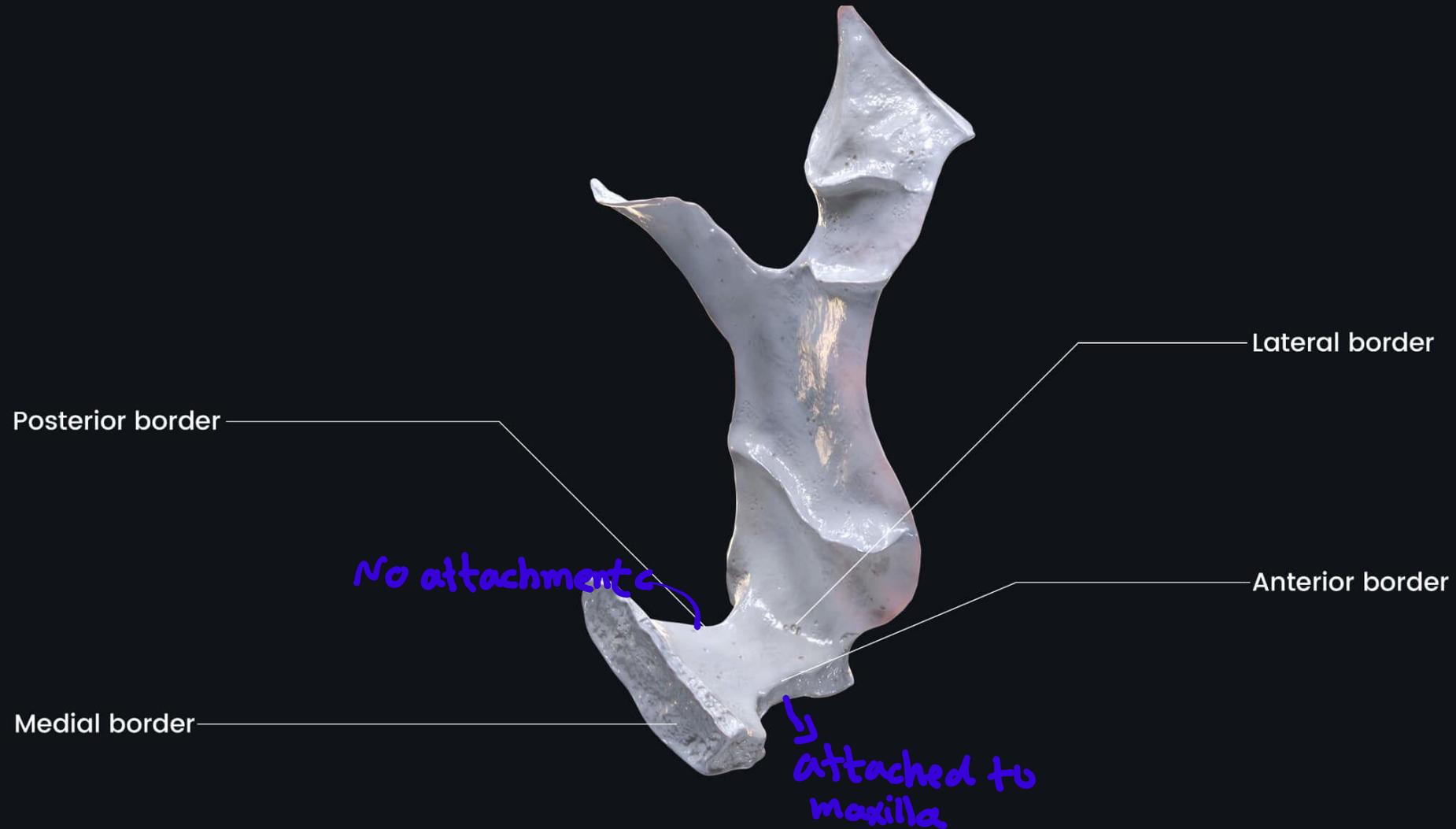


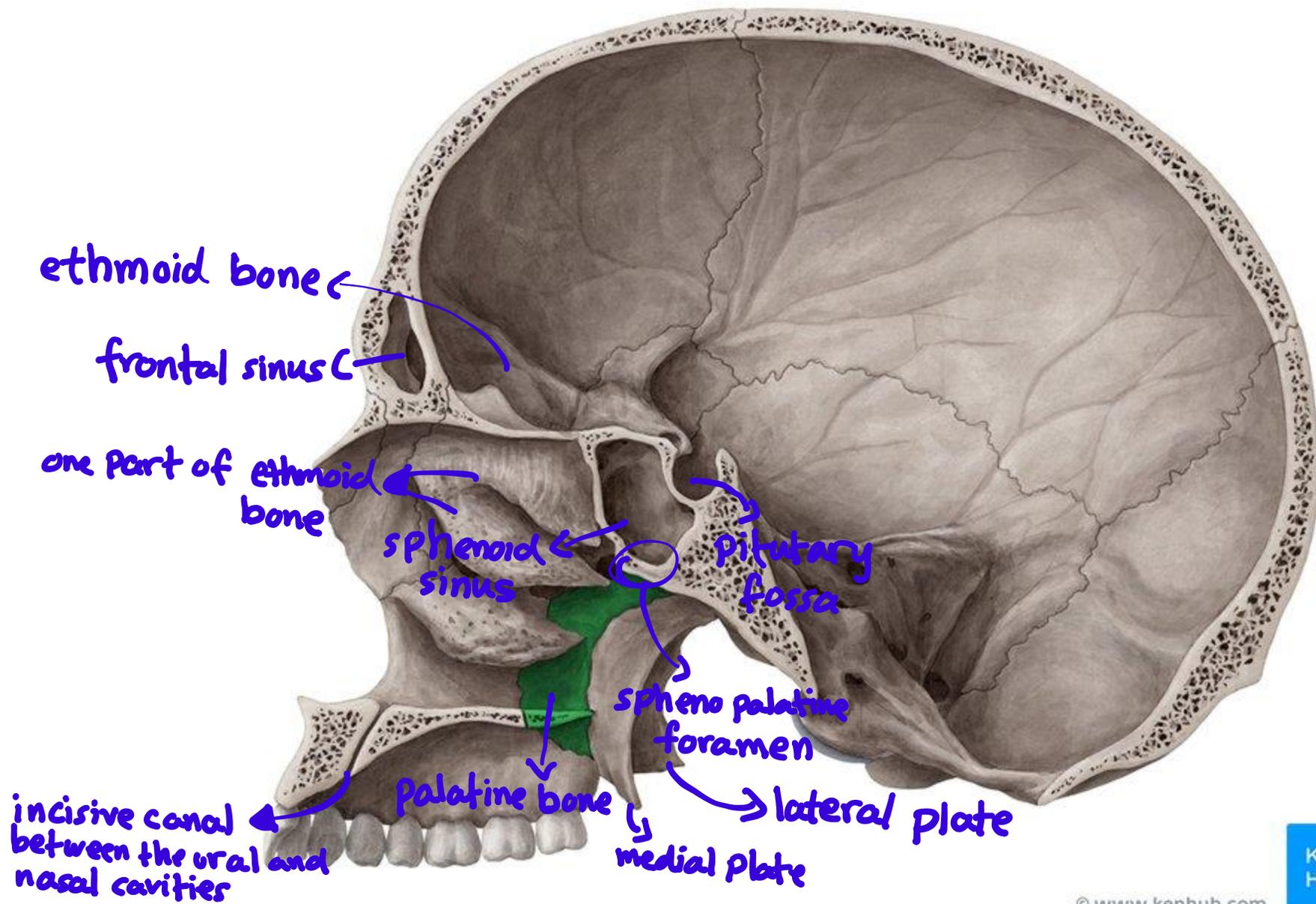
view → left norma lateralis





# Borders of palatine bone (horizontal plate)





ethmoid bone

frontal sinus

one part of ethmoid bone

sphenoid sinus

pituitary fossa

spheno palatine foramen

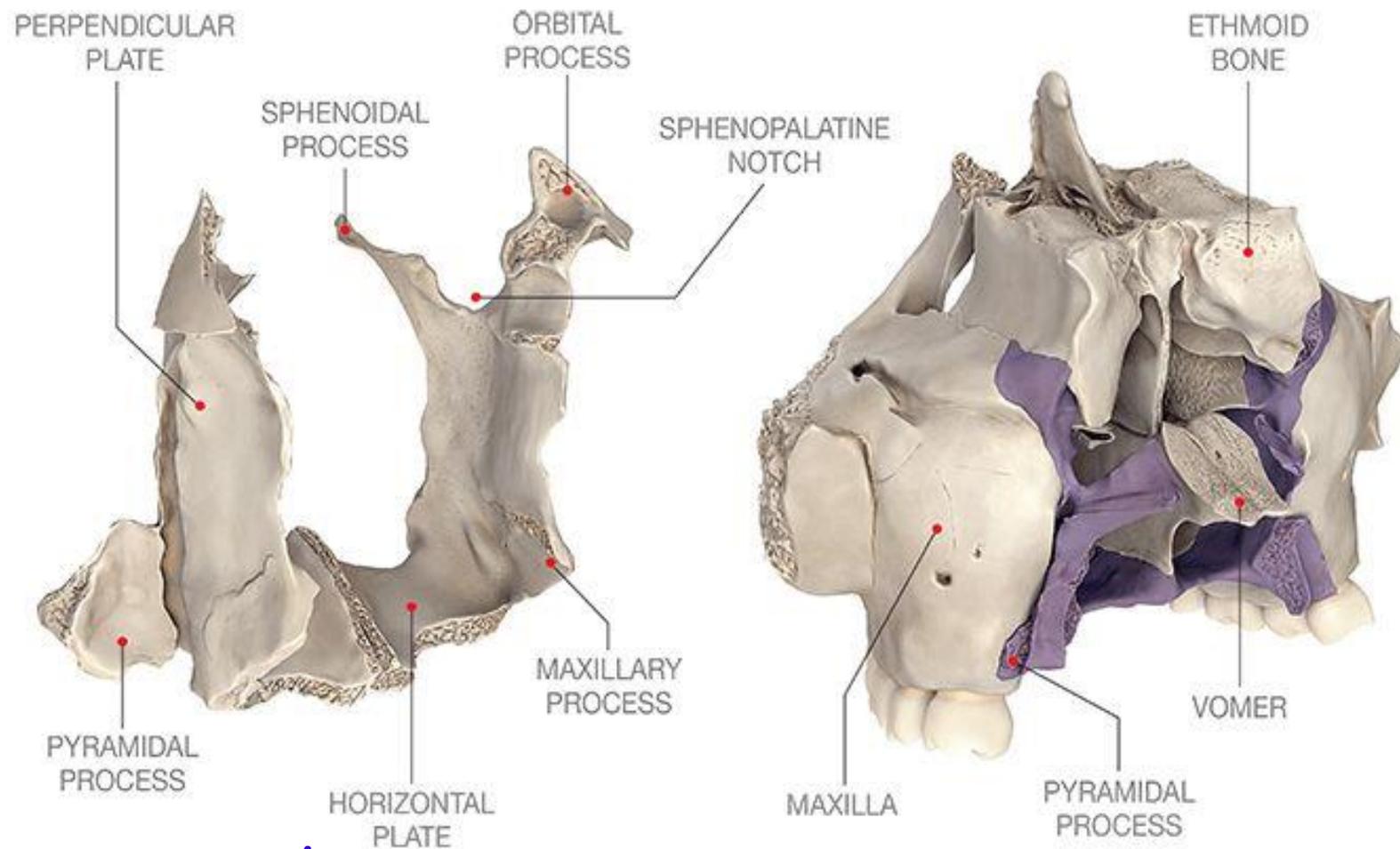
palatine bone

lateral plate

medial plate

incisive canal between the oral and nasal cavities

# PALATINE BONE



hard palate

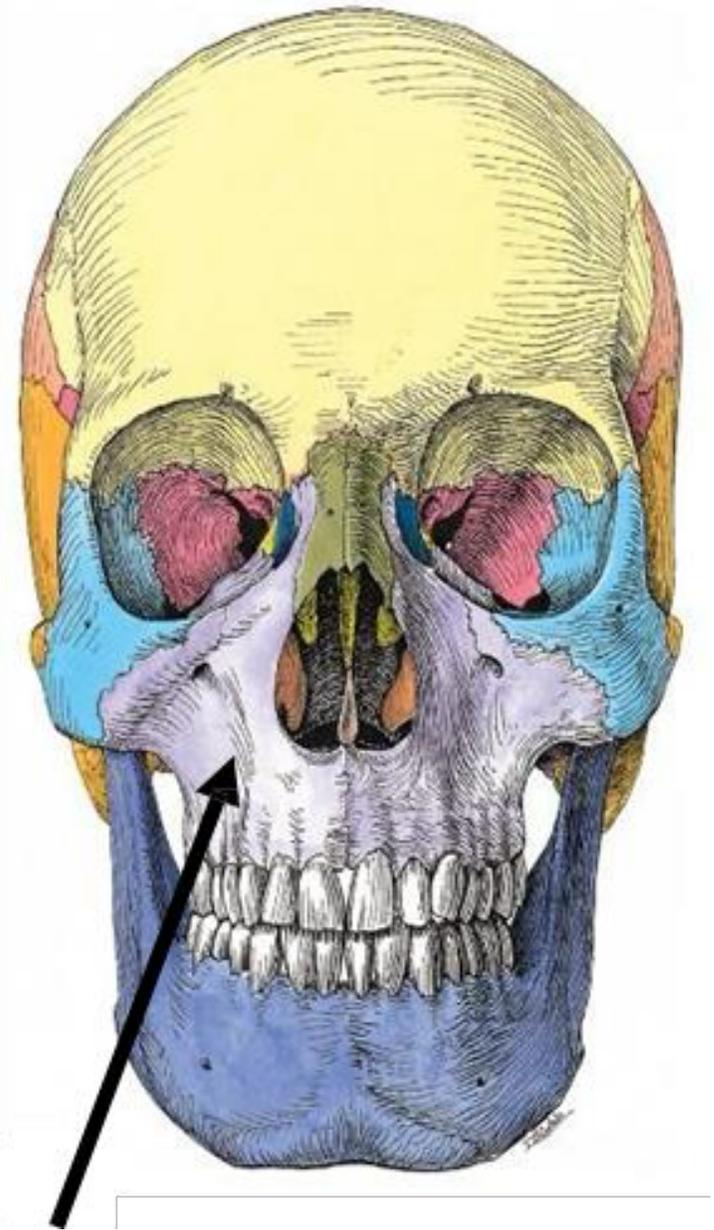


# FRACTURES OF THE BONES OF THE FACIAL SKELETON

## Facial Fractures

Fractures of the midface often involve the maxilla, due to its central position and extensive articulations with surrounding bones.

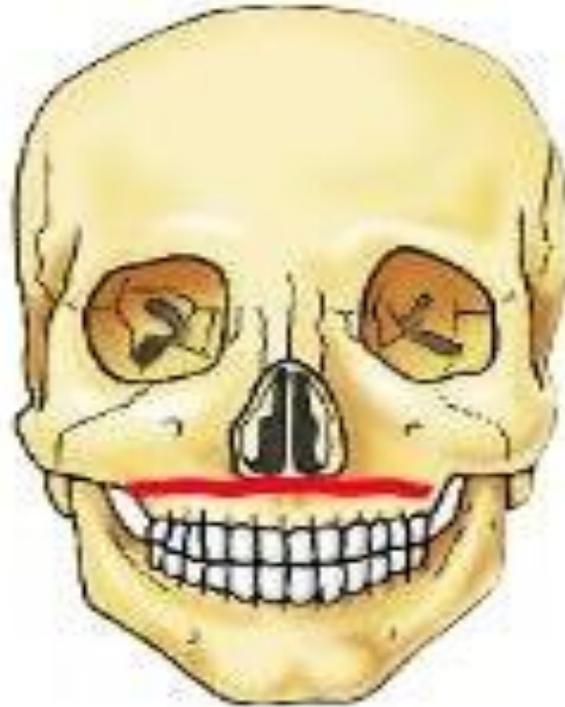
The most widely used system for classifying midfacial fractures is **the Le Fort classification**, which divides them into three main types based on the anatomical pattern of the fracture lines:



maxilla

## Le Fort Fractures of the Facial Skeleton

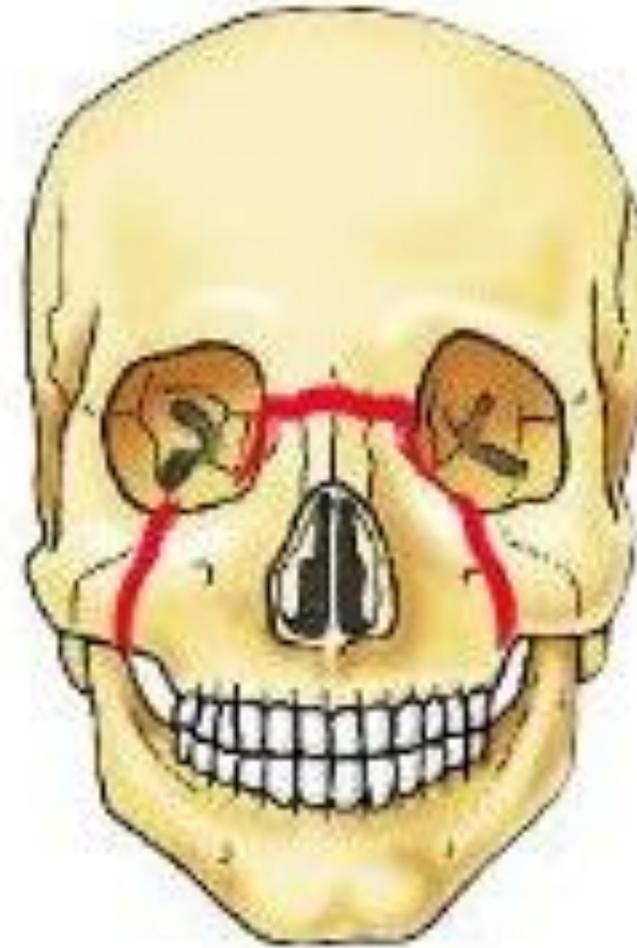
Le Fort I (Horizontal) – Fracture passes above the teeth, separating the alveolar process and palatine process. It involves the lateral wall of the maxillary sinus and nasal septum.



**Le Fort I**

## Le Fort Fractures of the Facial Skeleton

Le Fort II (Pyramidal) – Fracture runs from the nasal bridge through the frontal process, infraorbital margin, and maxillary sinus. It can damage the infraorbital nerve, resulting in sensory loss to the midface.



**Le Fort II**

# Le Fort Fractures of the Facial Skeleton

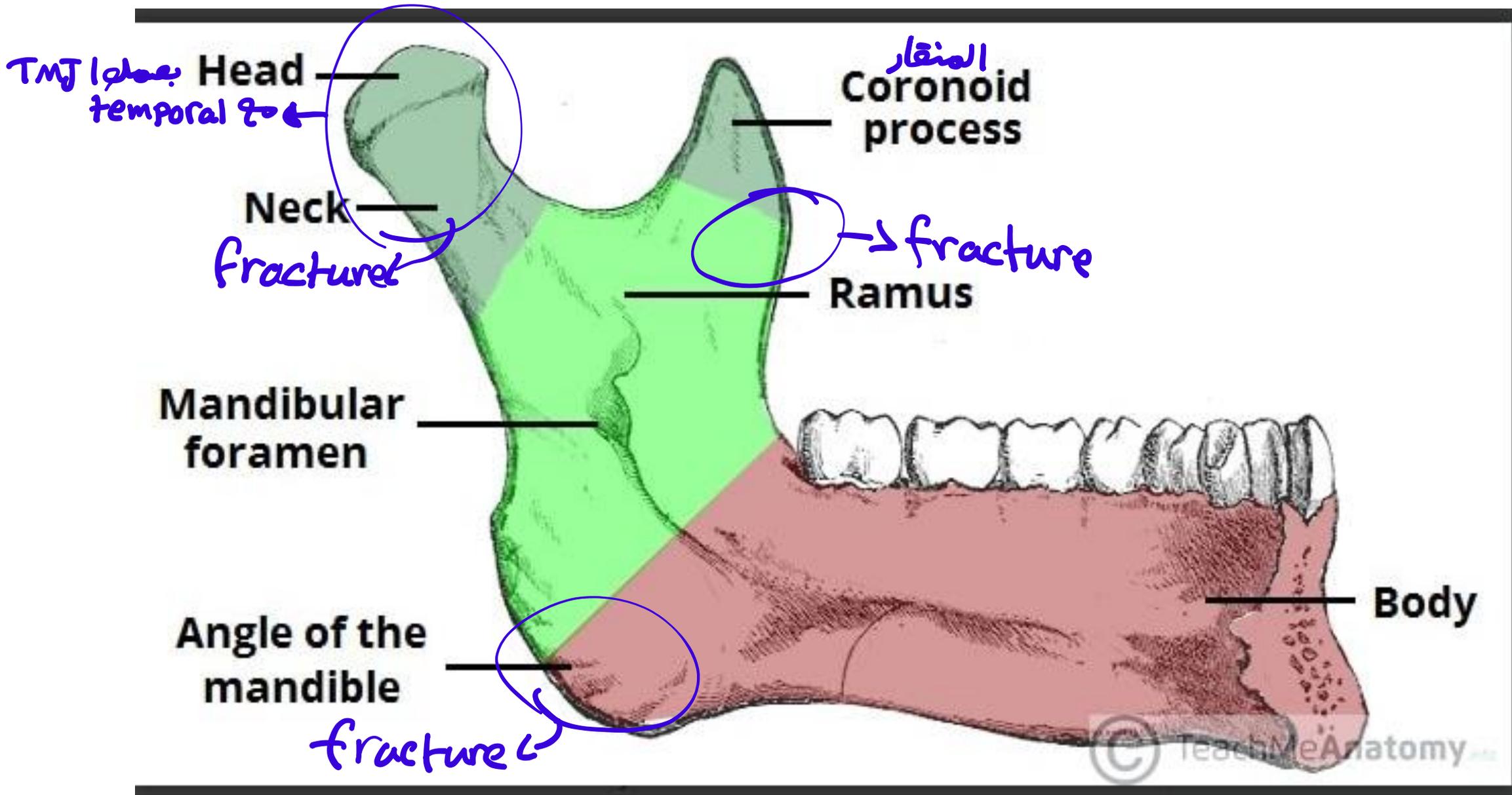
\* ~~The most dangerous~~

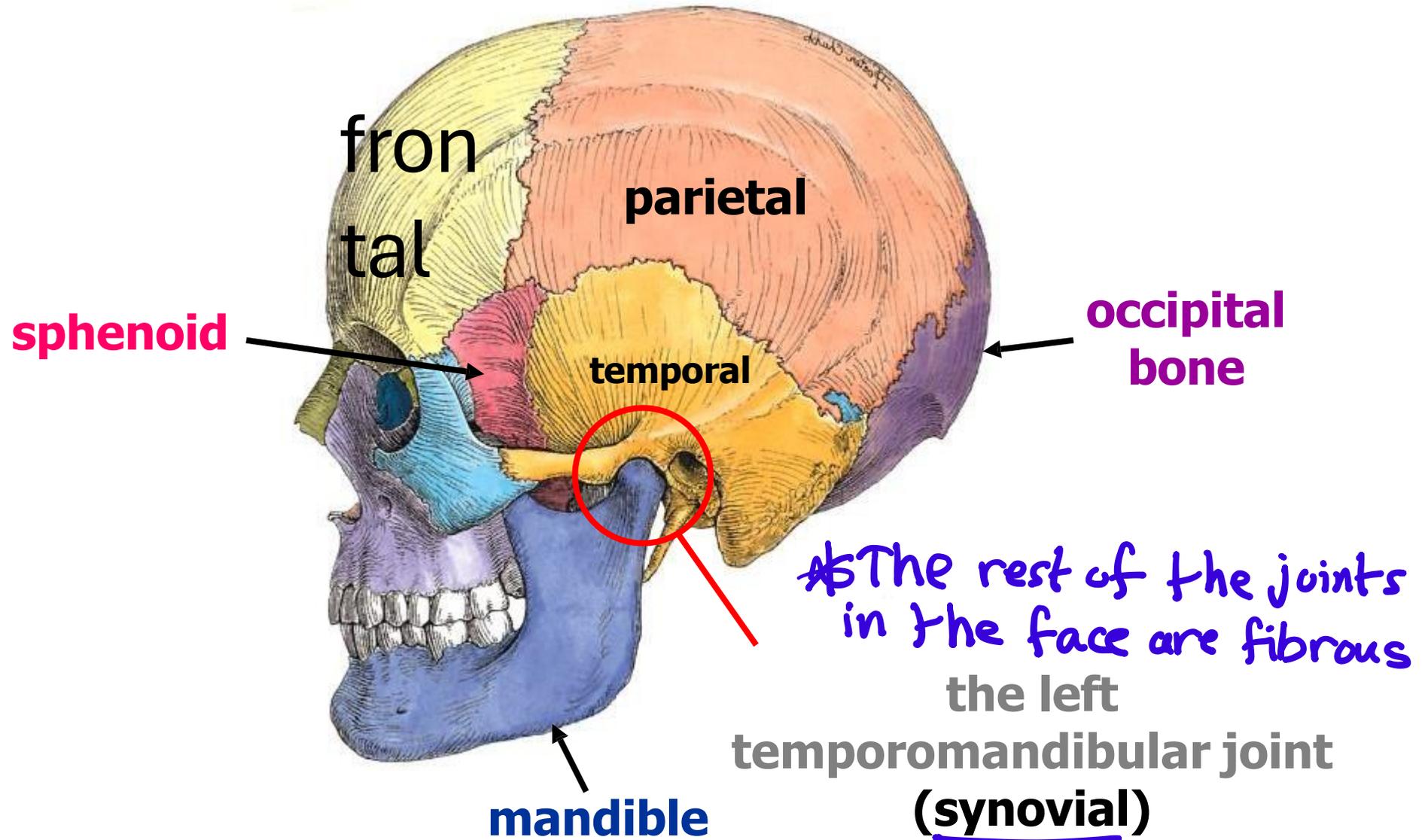
Le Fort III (Craniofacial disjunction) – Fracture separates the midface from the cranial base via the zygomatic process, orbital floor, and nasofrontal suture. It involves the disarticulation of the maxilla from the skull base.



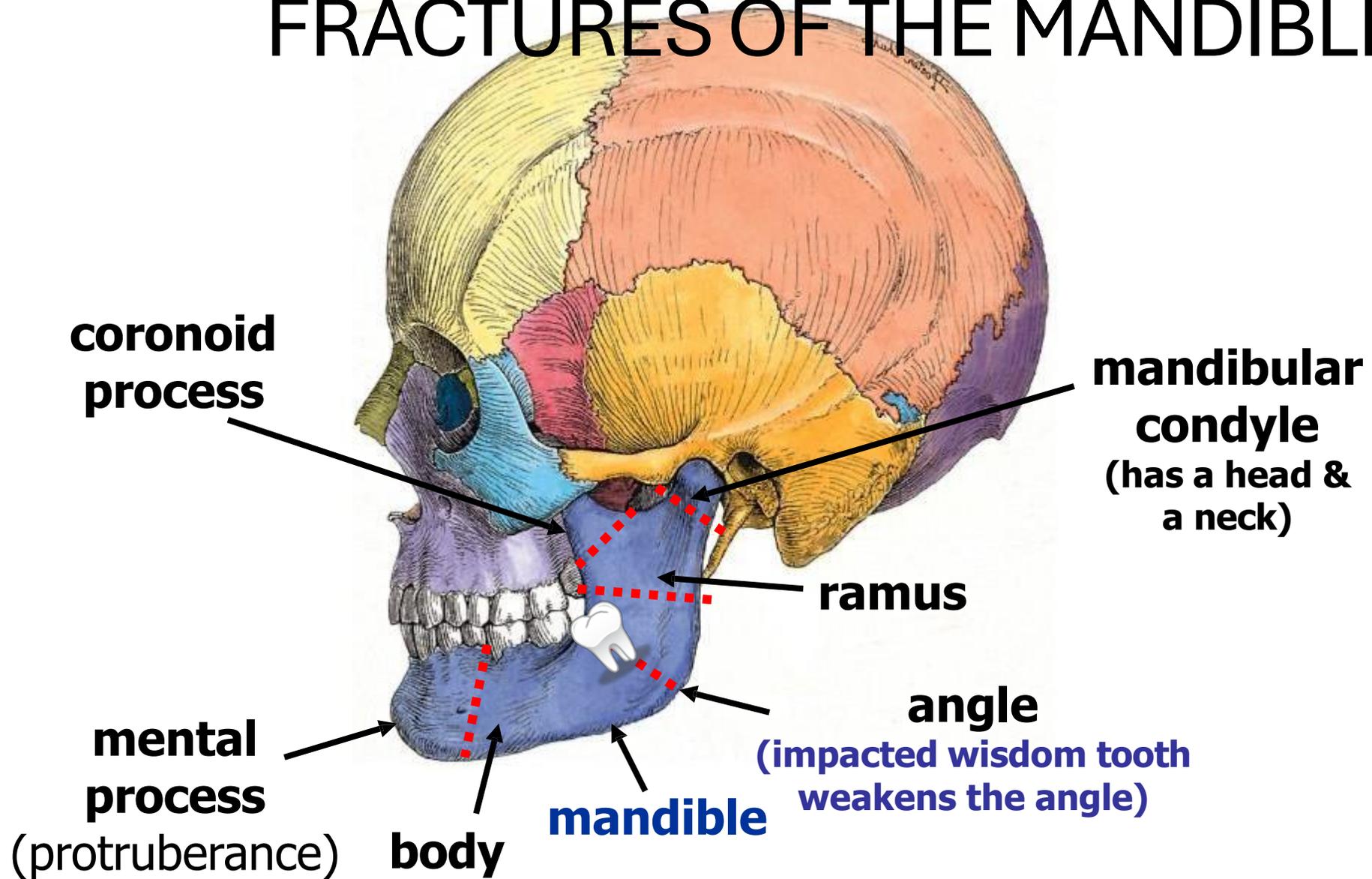
**Le Fort III**

# Mandible

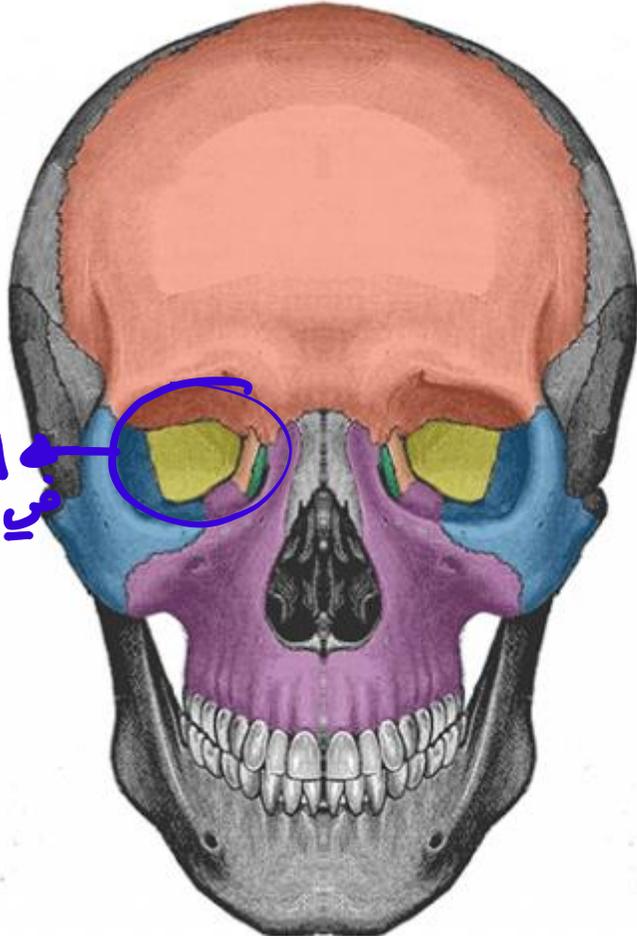




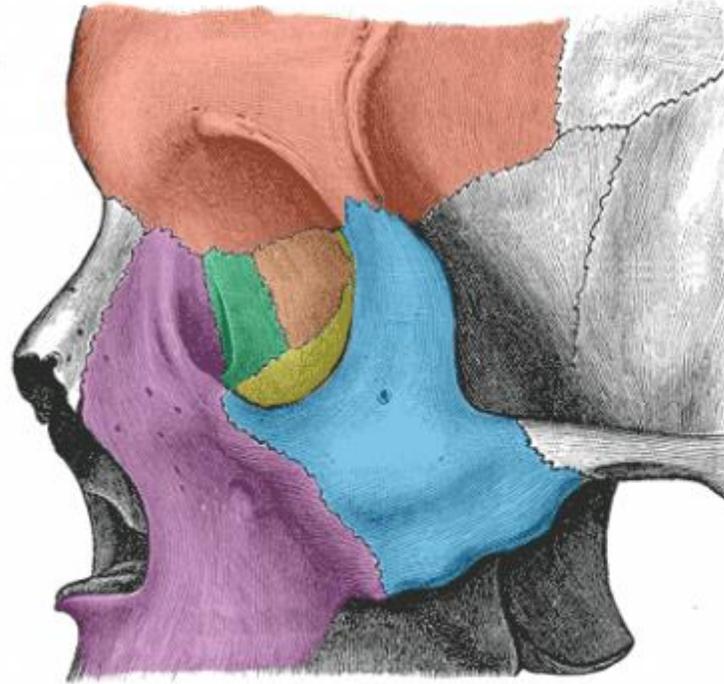
# FRACTURES OF THE MANDIBLE



## BONY ORBIT

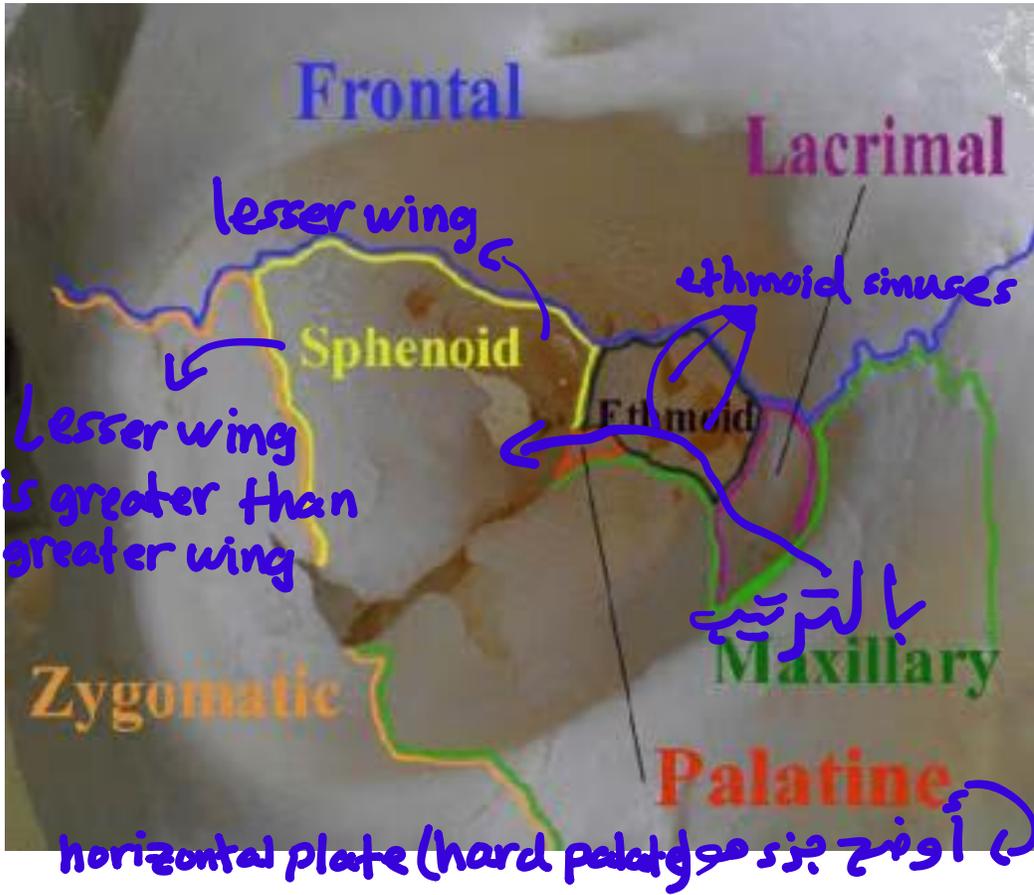


orbit:  
cavity اعلى  
في الكسكس

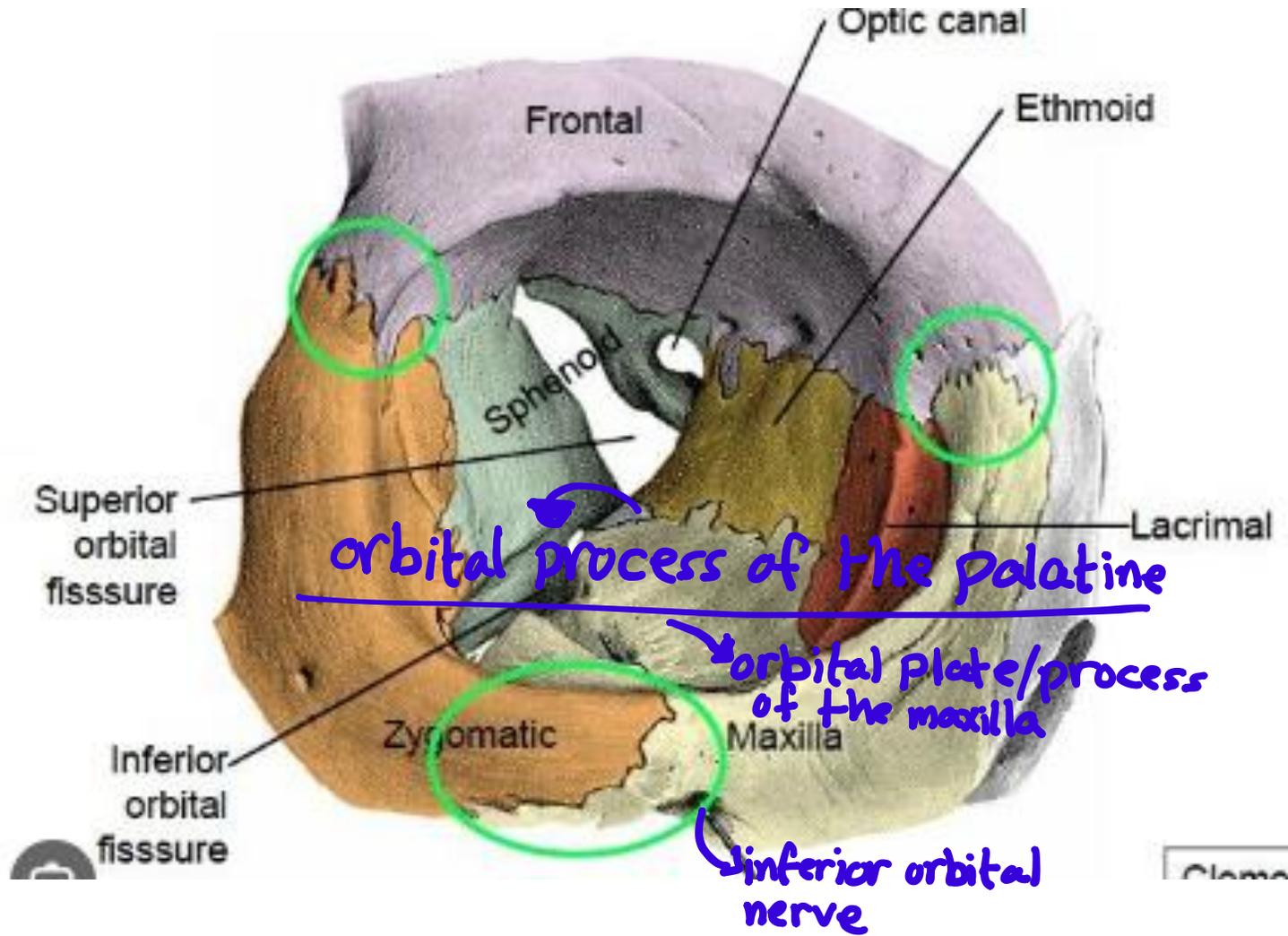


- |   |           |
|---|-----------|
|  | Frontal   |
|  | Sphenoid  |
|  | Lacrimal  |
|  | Ethmoid   |
|  | Maxilla   |
|  | Zygomatic |

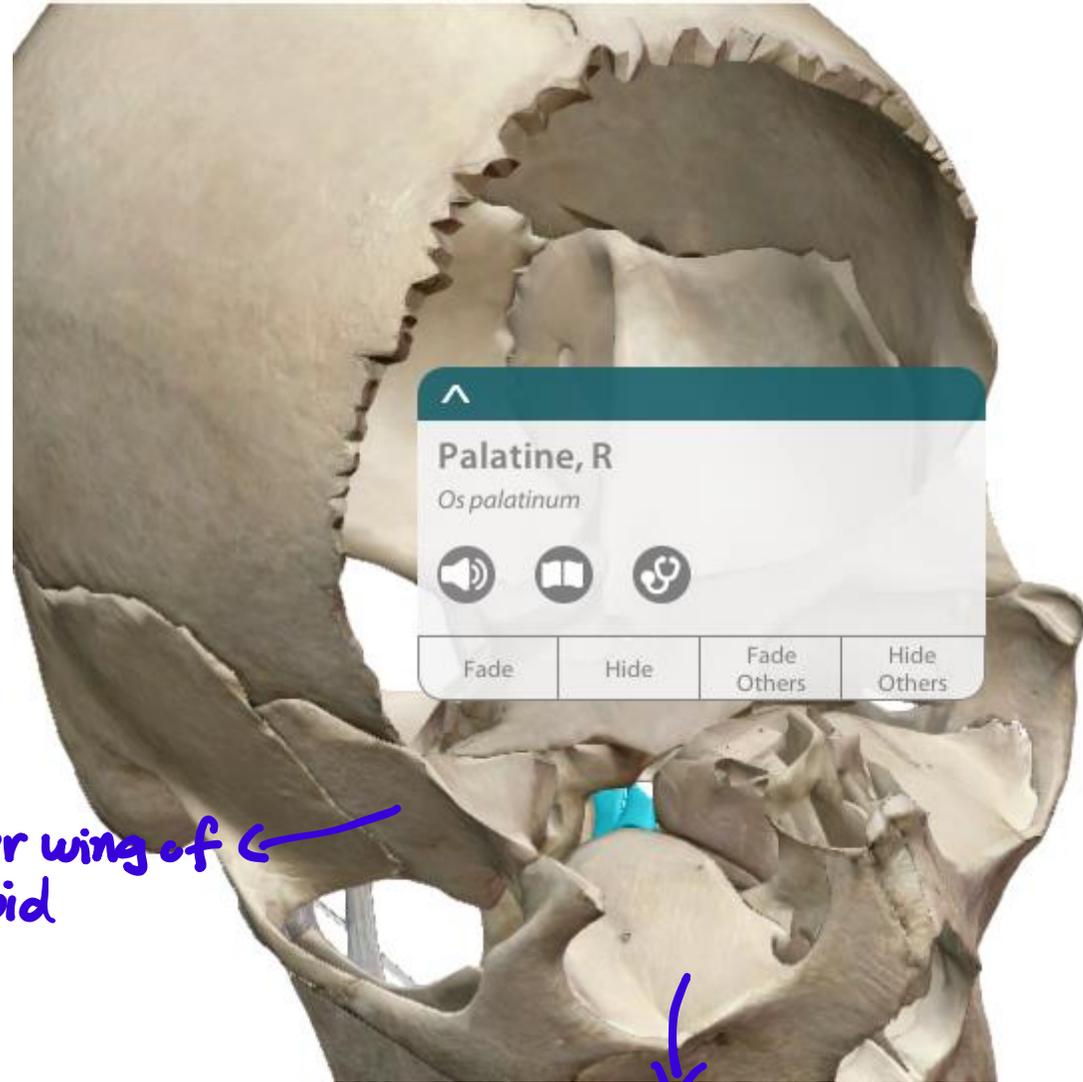
# FMPlez



القناة الجوفاء  
infra orbital canal  
supra orbital notch



Gender



^

**Palatine, R**  
*Os palatinum*

Fade	Hide	Fade Others	Hide Others
------	------	-------------	-------------

greater wing of sphenoid ←

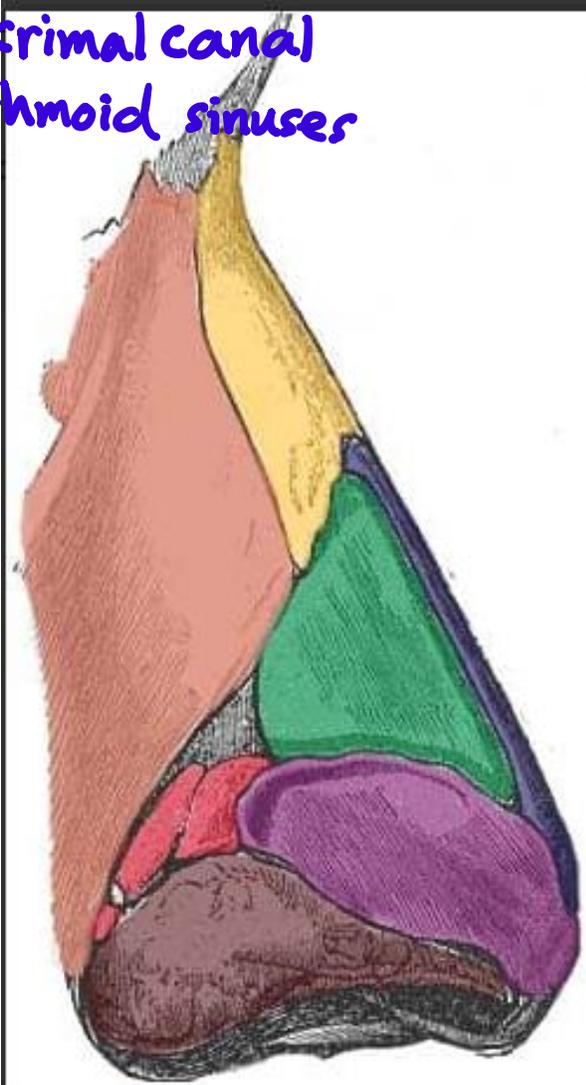
↓  
maxilla

# The Nasal Skeleton

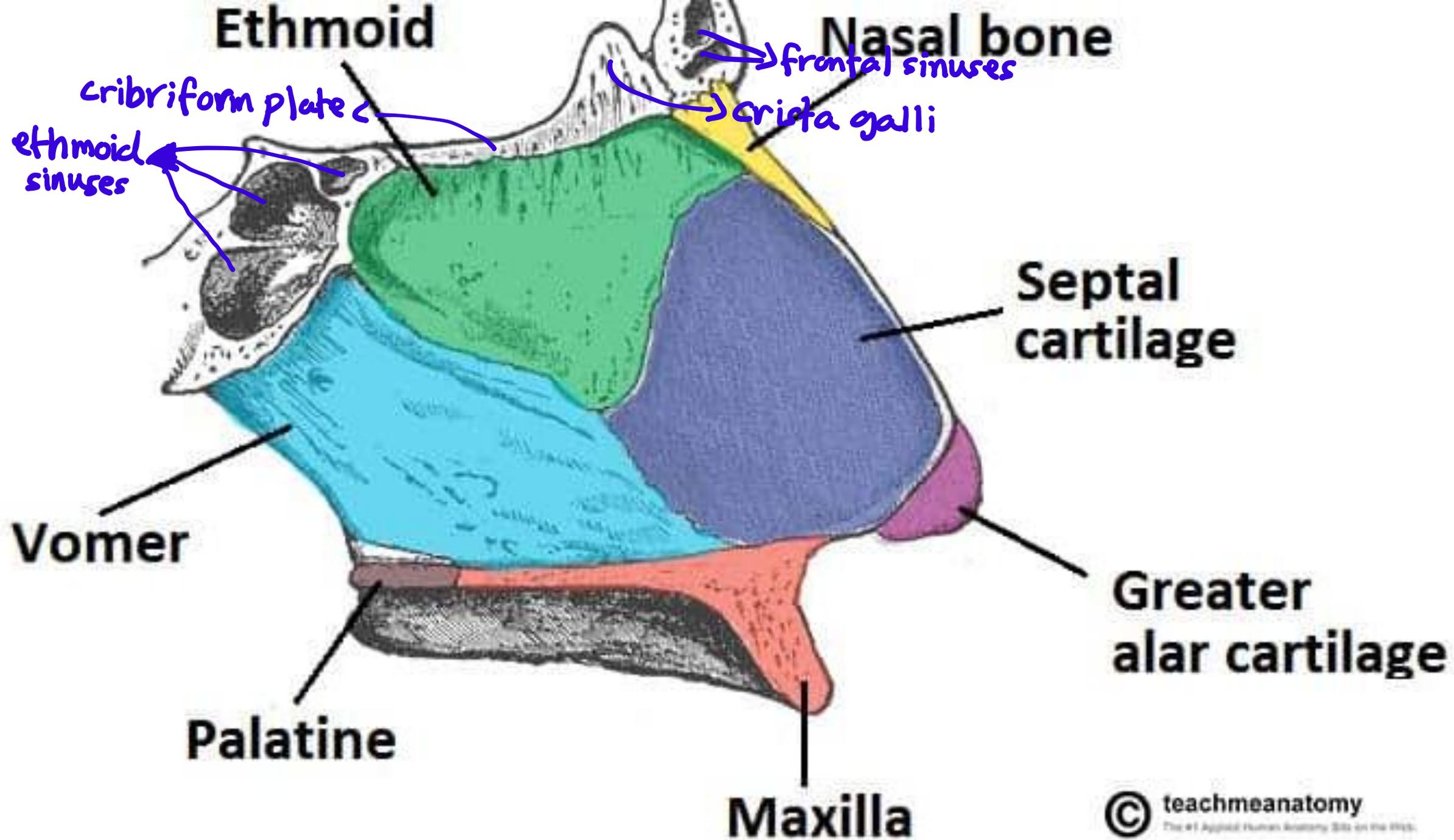
\* التي يفصل ال nose عن ال orbit :  
frontal process of maxillary bone

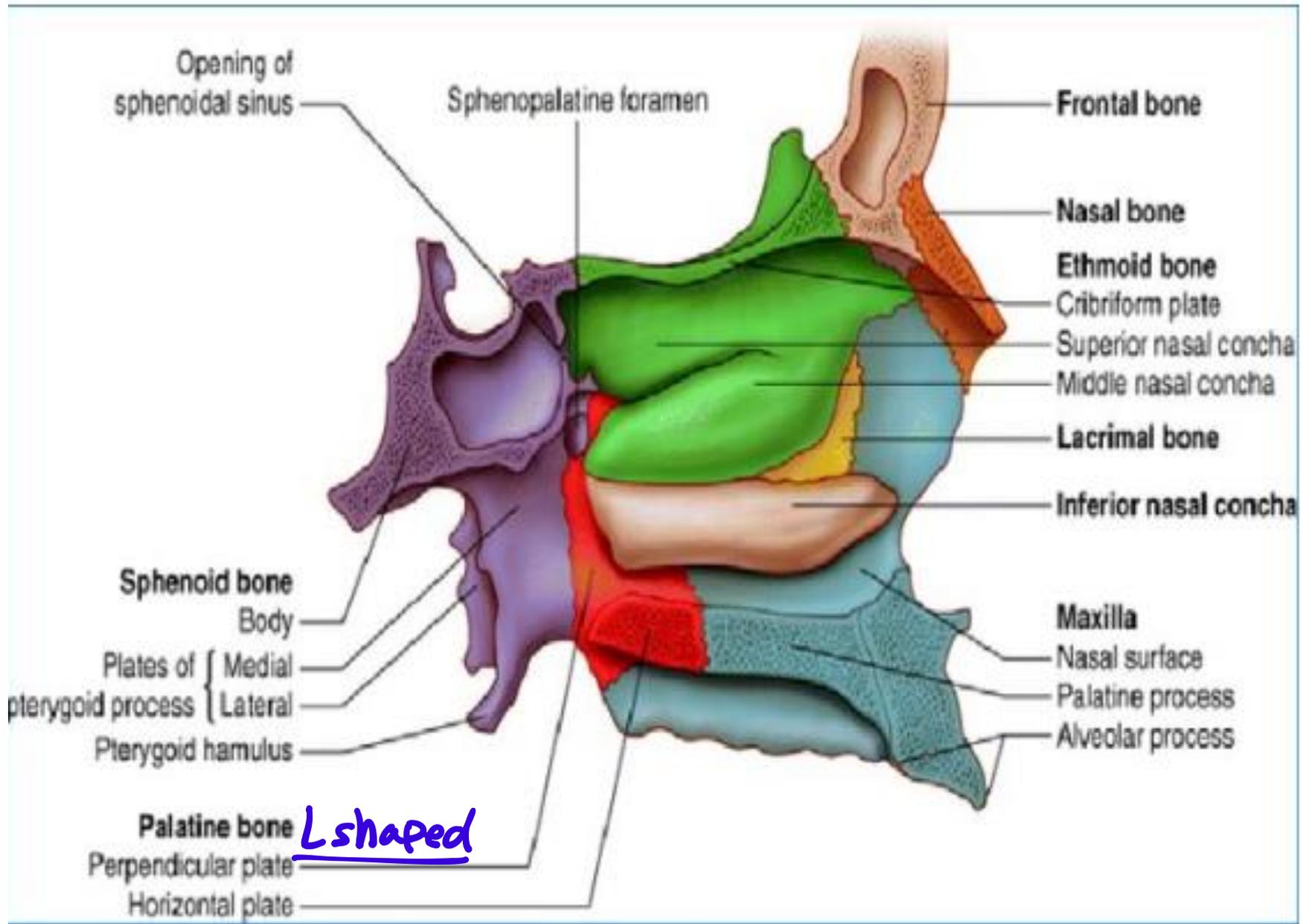
Connections between nose and eyes:

- ① lacrimal canal
- ② ethmoid sinuses



-  Nasal Bone
-  Maxilla
-  Septal Cartilage
-  Lateral Cartilage
-  Major Alar Cartilage
-  Minor Alar Cartilages
-  Fibro-fatty Tissue



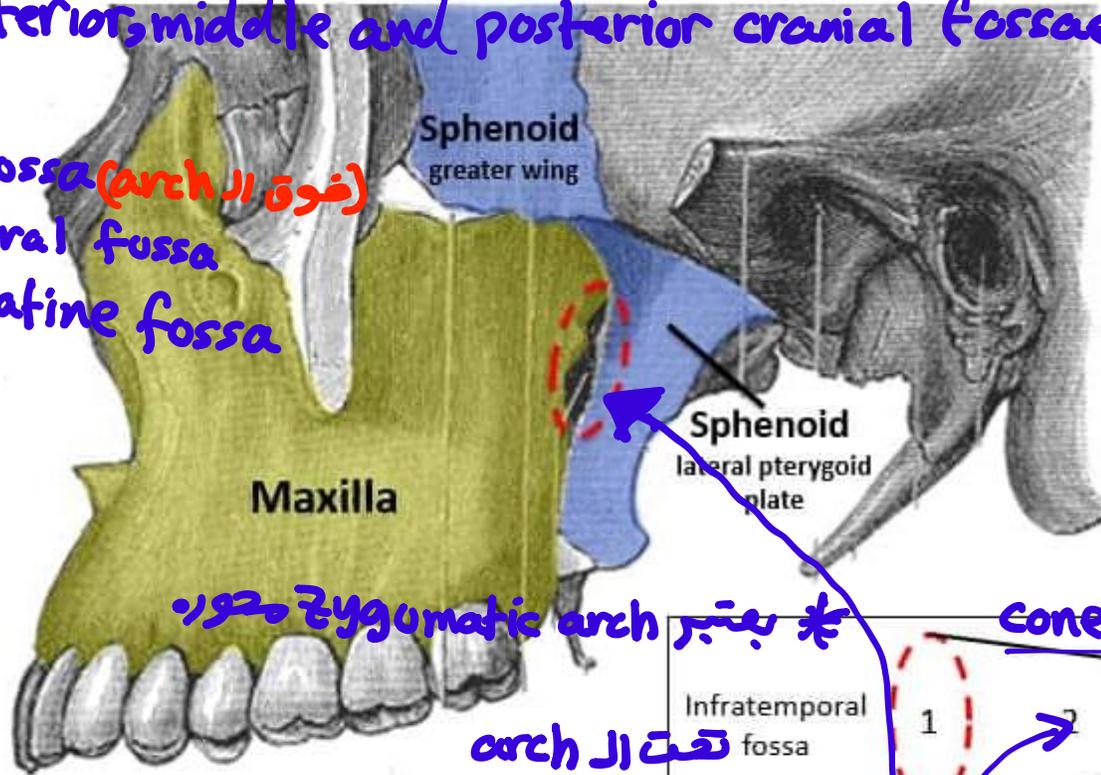


Lshaped

# The Pterygopalatine Fossa

fossae inside and outside the skull are 3  
 inside → anterior, middle and posterior cranial fossae,  
 outside:

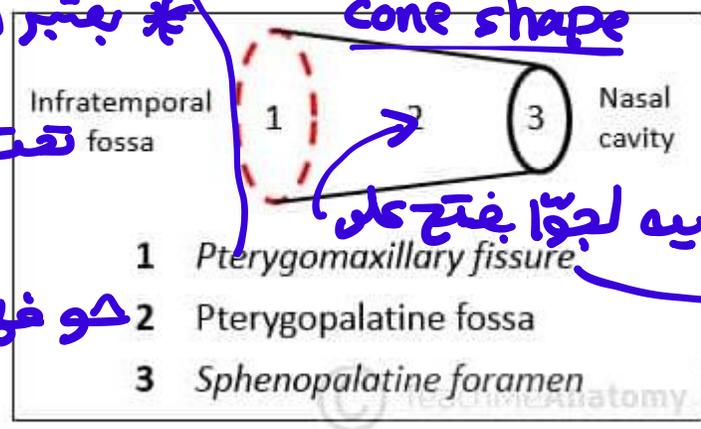
- ① temporal fossa (فوق القبة)
- ② infratemporal fossa
- ③ Pterygopalatine fossa



gum arch بتغير

القبة

موقع

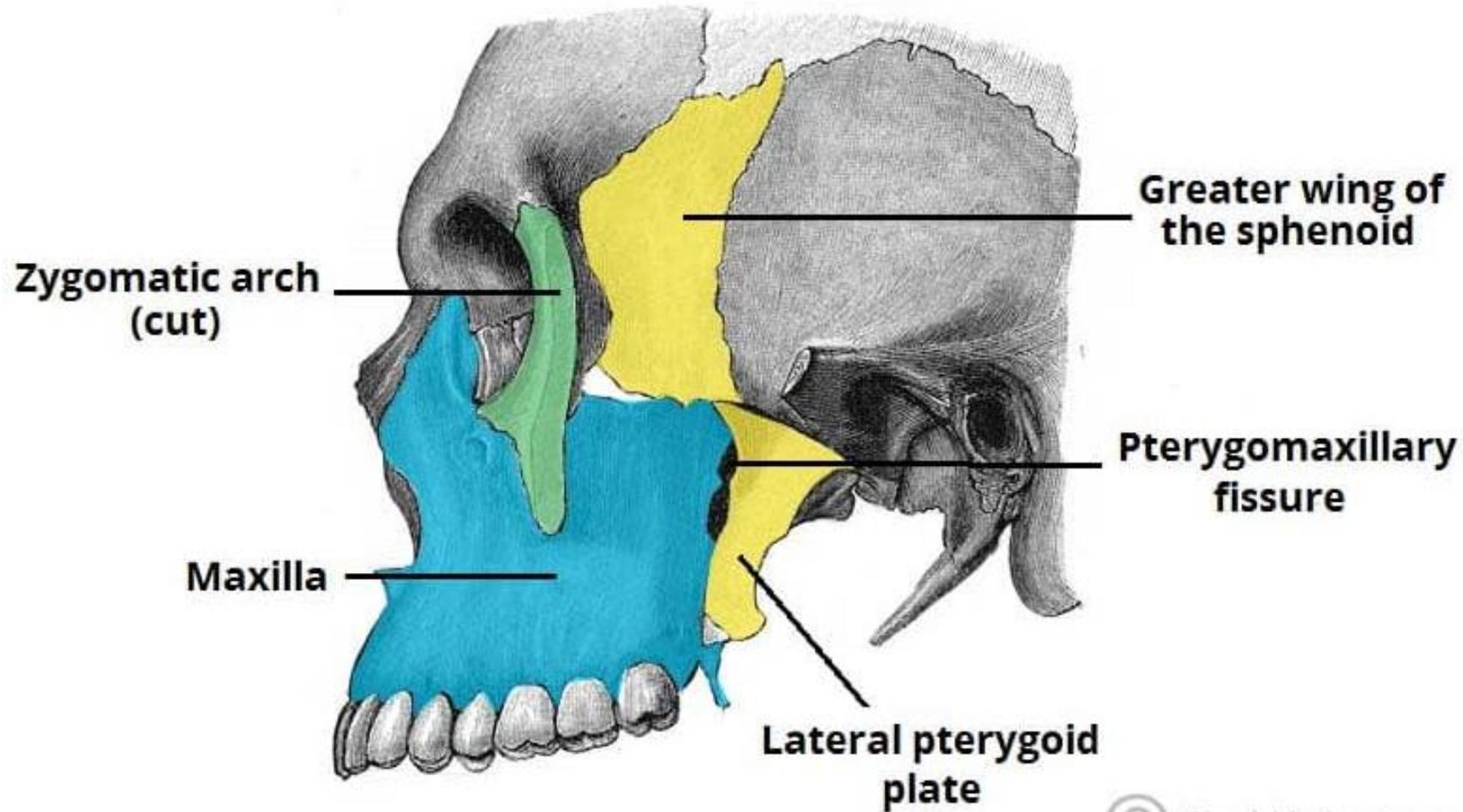


Cone shape

منه بترابصديه لحوّا بفتح علو

هو

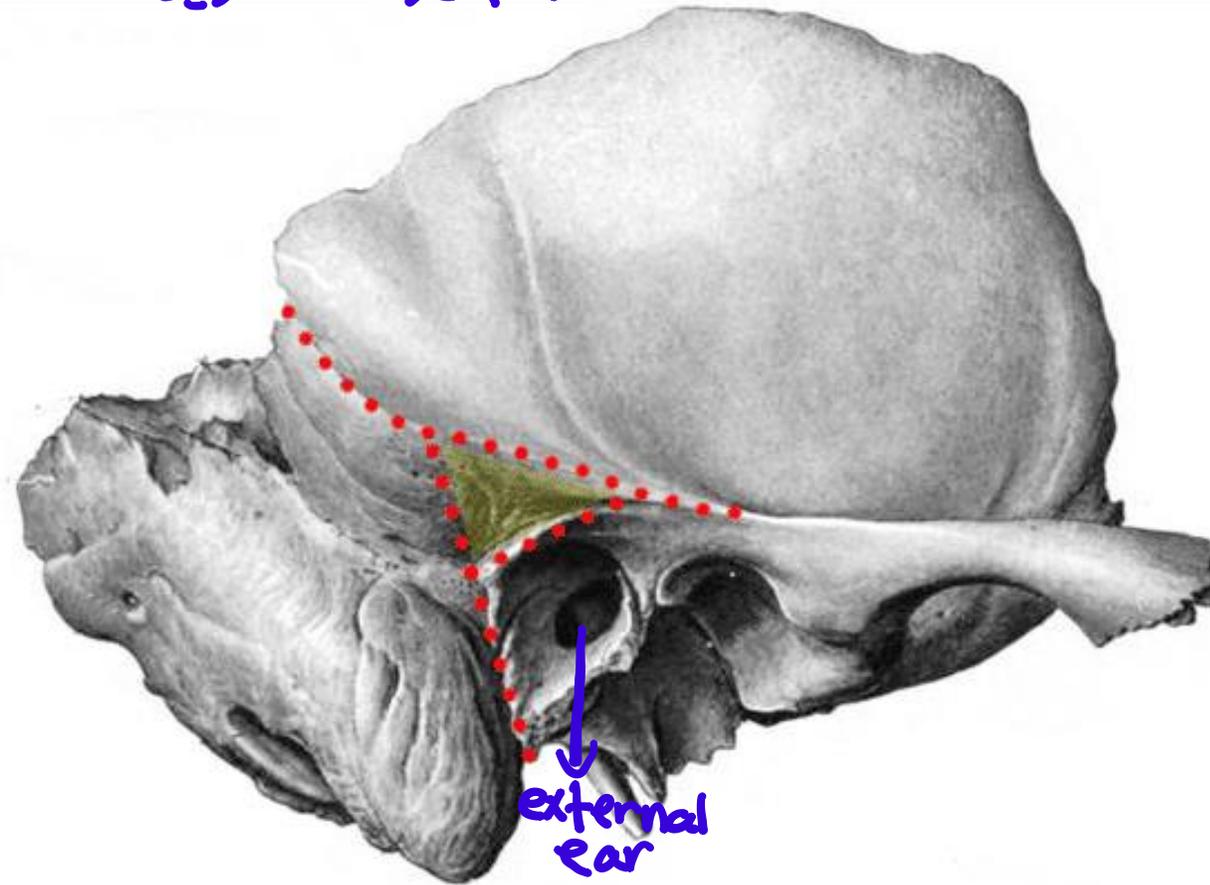
# The Infratemporal Fossa



# The Mastoid Fossa (MacEwen's Triangle)

external acoustic meatus \* بميزه عن طريق

فوهة للفتحات السمعية



external ear