



# Skull

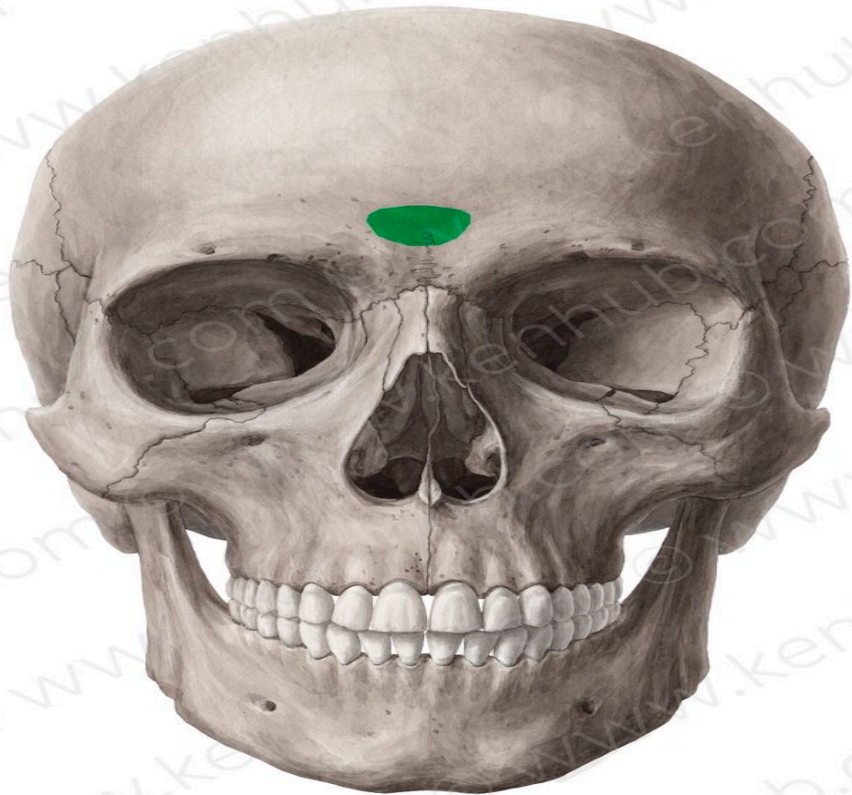
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- ❑ The skull is formed of separate bones (6 single and 8 paired).
- ❑ Many of these bones articulate with one another by **sutures**.

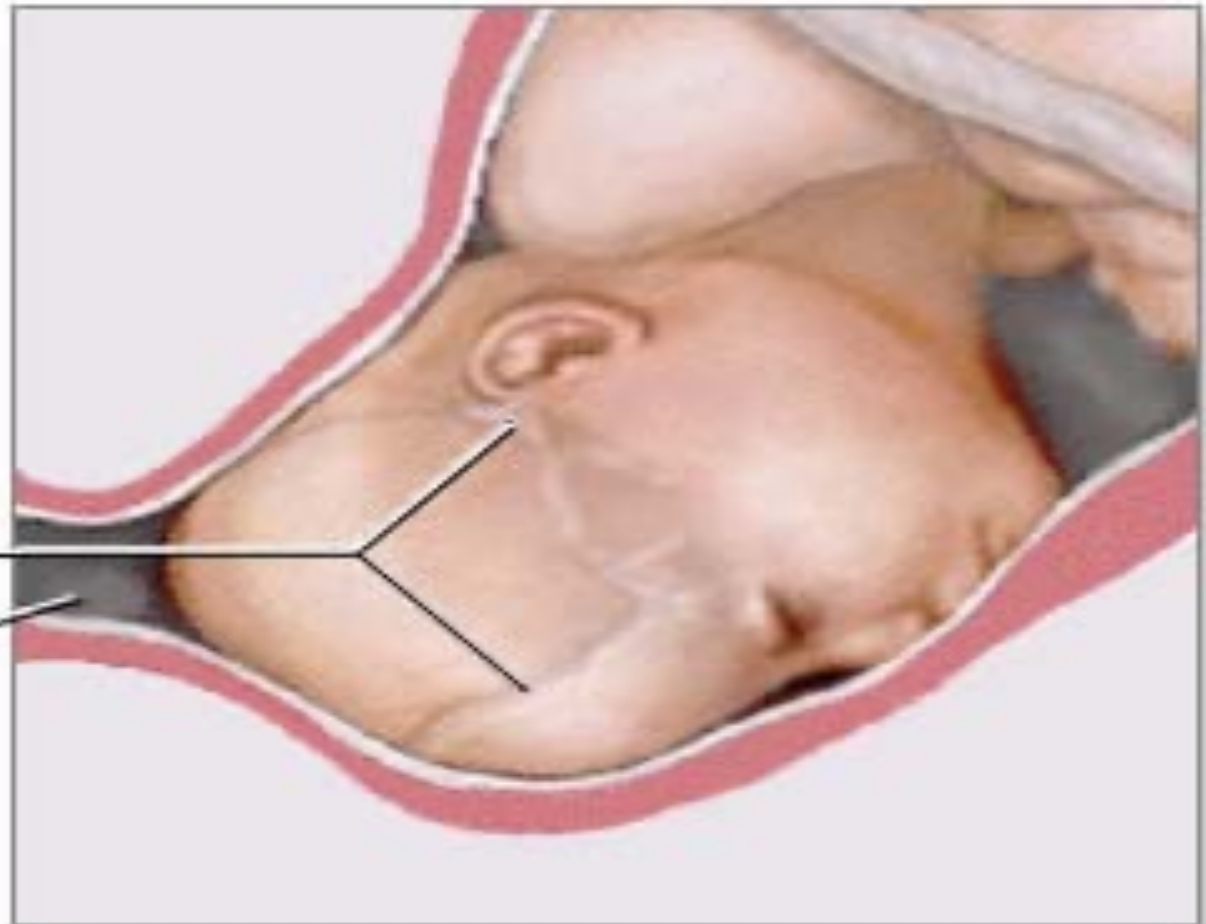


# Fetal head molding



Sutures

Birth canal  
(vagina)



 ADAM.

❑ the skull is studied in six views, each is called norma :

- ✓ From in front : Norma frontalis
- ✓ From above : Norma verticalis.
- ✓ From behind : Norma occipitalis.
- ✓ From the side : Norma lateralis.
- ✓ From below: Norma basalis.
- ✓ From inside : Norma basalis interna.

# Norma Frontalis

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## ➤ **Bones :**

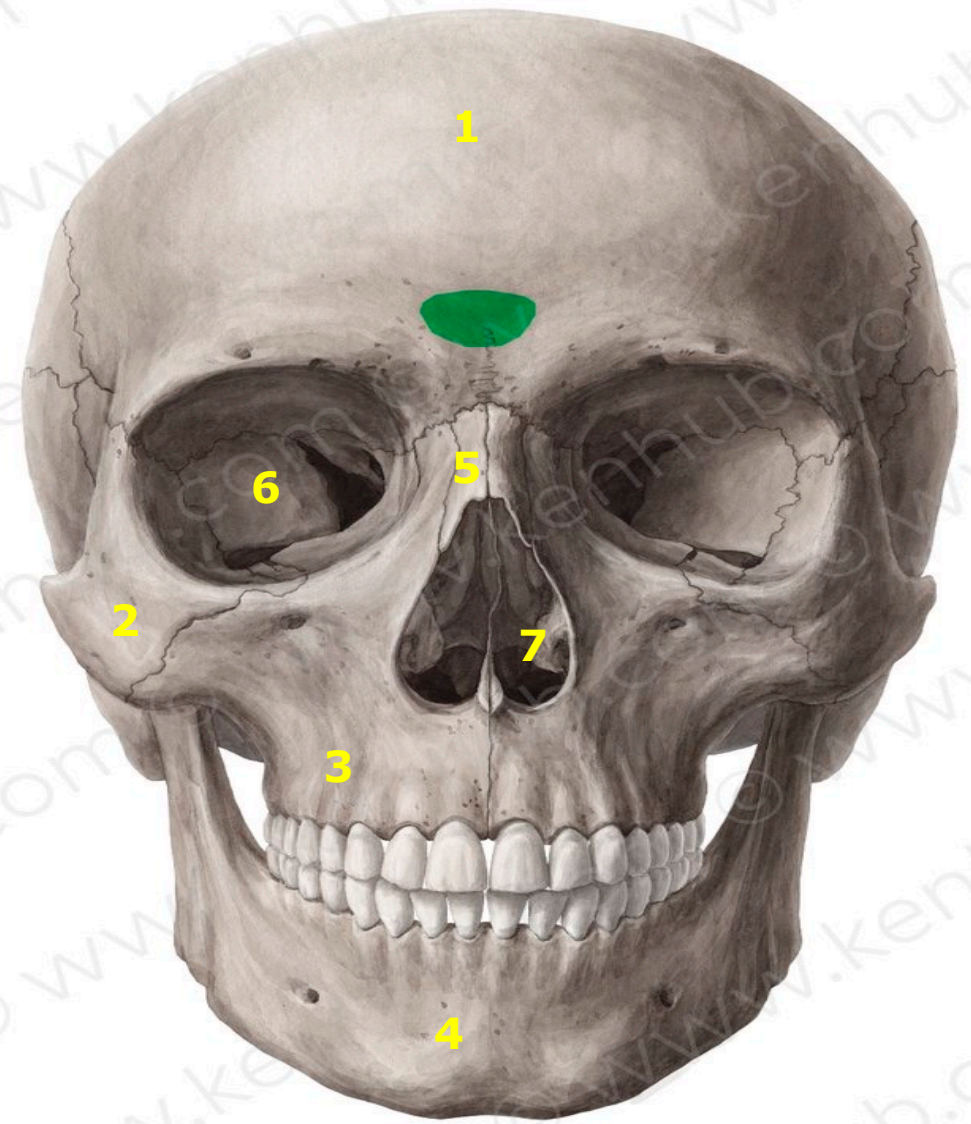
1. The frontal bone with its maxillary and zygomatic processes.
2. The two nasal bones.
3. The zygomatic bone with its maxillary and frontal processes.
4. The maxilla with its zygomatic, frontal and alveolar processes.

## ➤ **Apertures :**

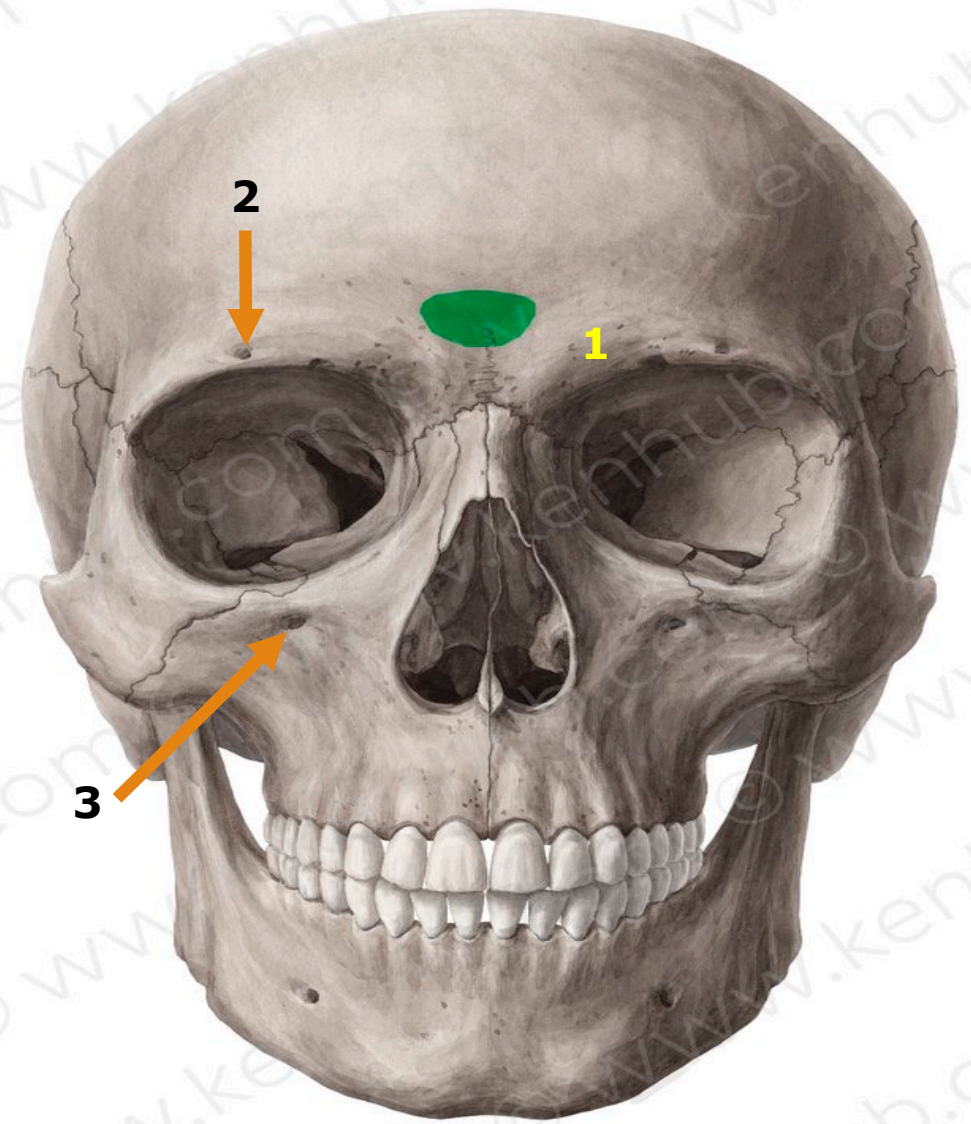
1. Two orbital apertures.
2. The anterior nasal aperture.



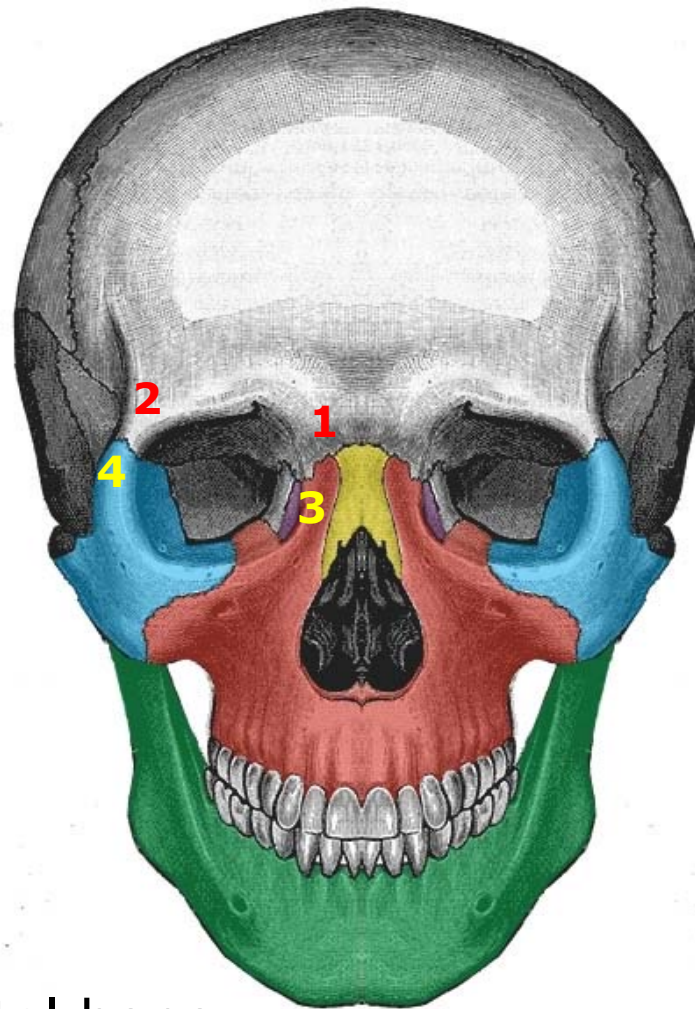
1. Frontal bone
2. Zygomatic bone
3. Maxilla
4. Mandible
5. Nasal bone
6. Orbital apertures.
7. Anterior nasal aperture



1. The supraciliary arch
2. The supraorbital foramen  
Transmit supraorbital nerve and vessels
3. The Infraorbital foramen  
Transmit infraorbital nerve and vessels



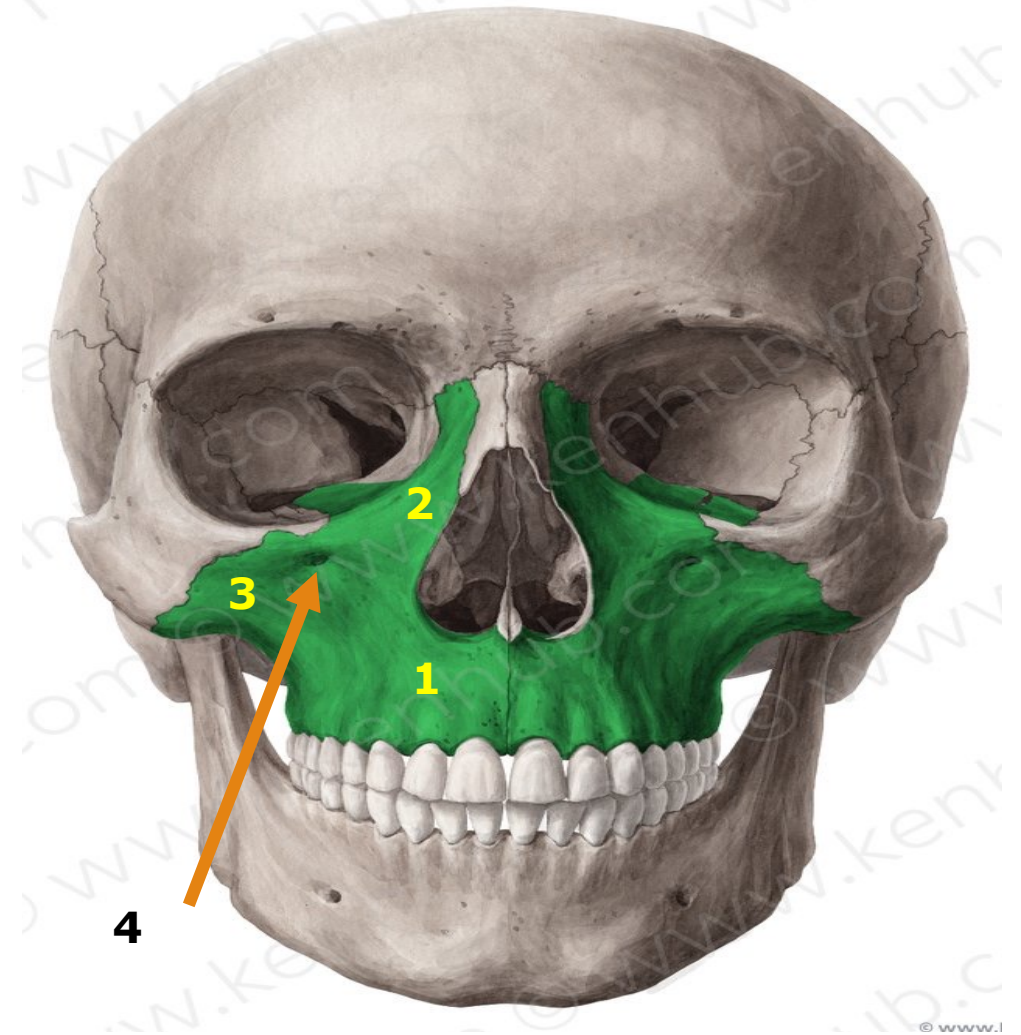




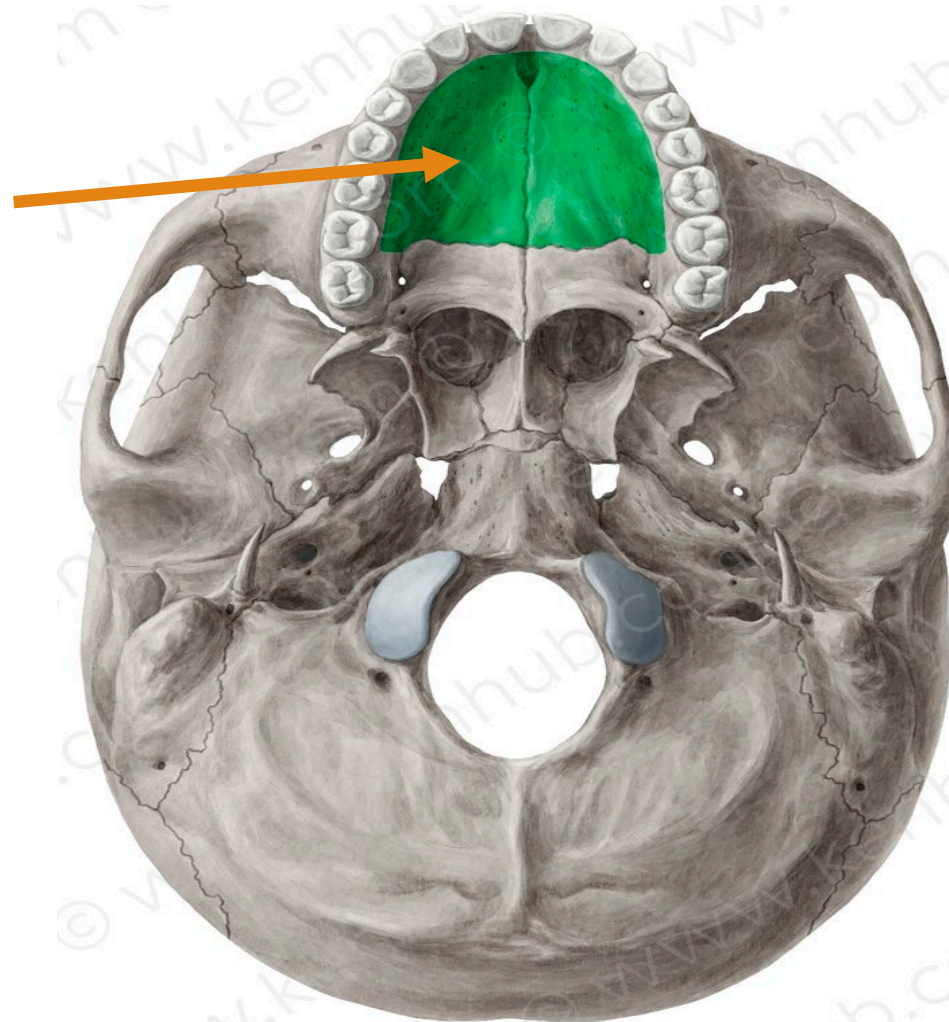
1. Maxillary process of frontal bone
2. Zygomatic process of frontal bone
3. Frontal process of Maxilla
4. Frontal process of Zygomatic

## Maxilla Bone

1. Alveolar process of Maxilla  
(The two alveolar processes unite to form the alveolar arch  
(= upper jaw).
2. Frontal process of Maxilla
3. Zygomatic process of Maxilla
4. Infraorbital foramen

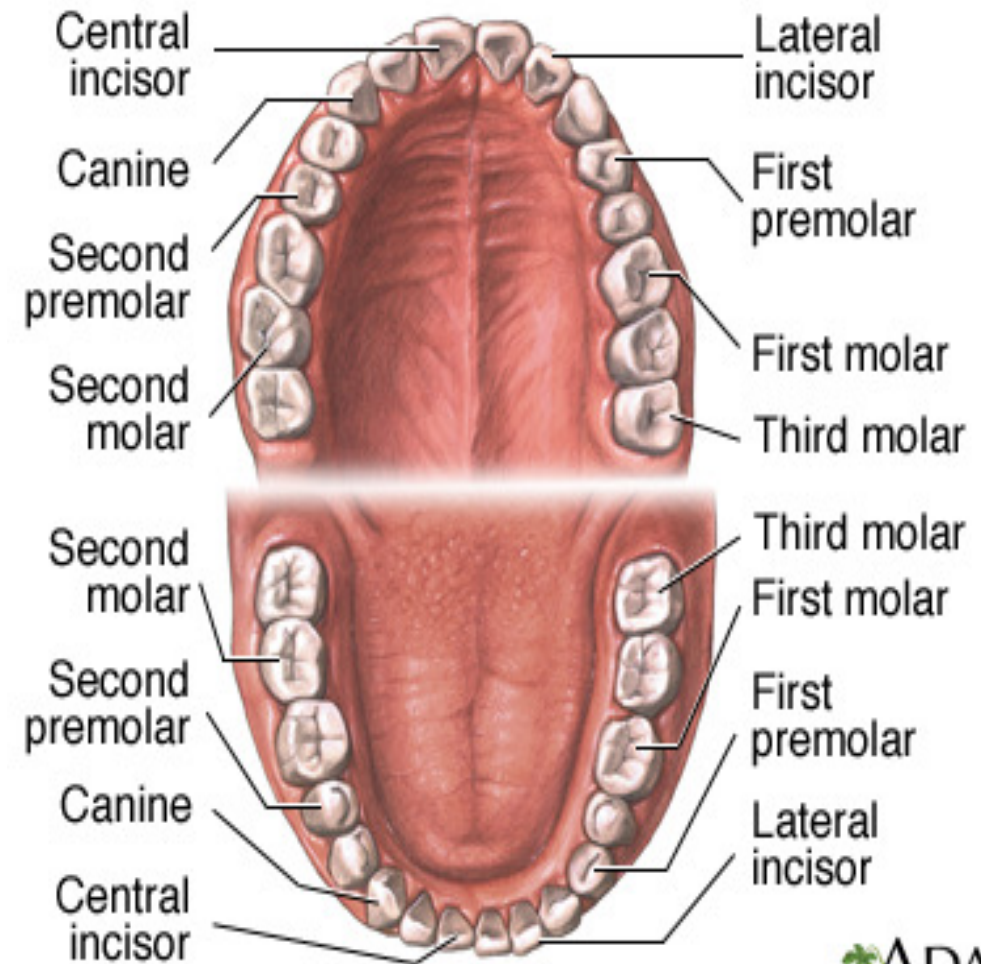


**5- Palatine process of maxilla**



## Number of teeth is 32 in both jaws

Incisors : 8  
Canines : 4  
Premolars : 8  
Molars : 8  
Third molars : 4



ADAM.



## Zygomatic Bone

1. Frontal process of Zygomatic
2. Maxillary process of Zygomatic



# Norma verticalis

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## **Norma Verticalis :**

This view presents :

### ➤ **4 bones**

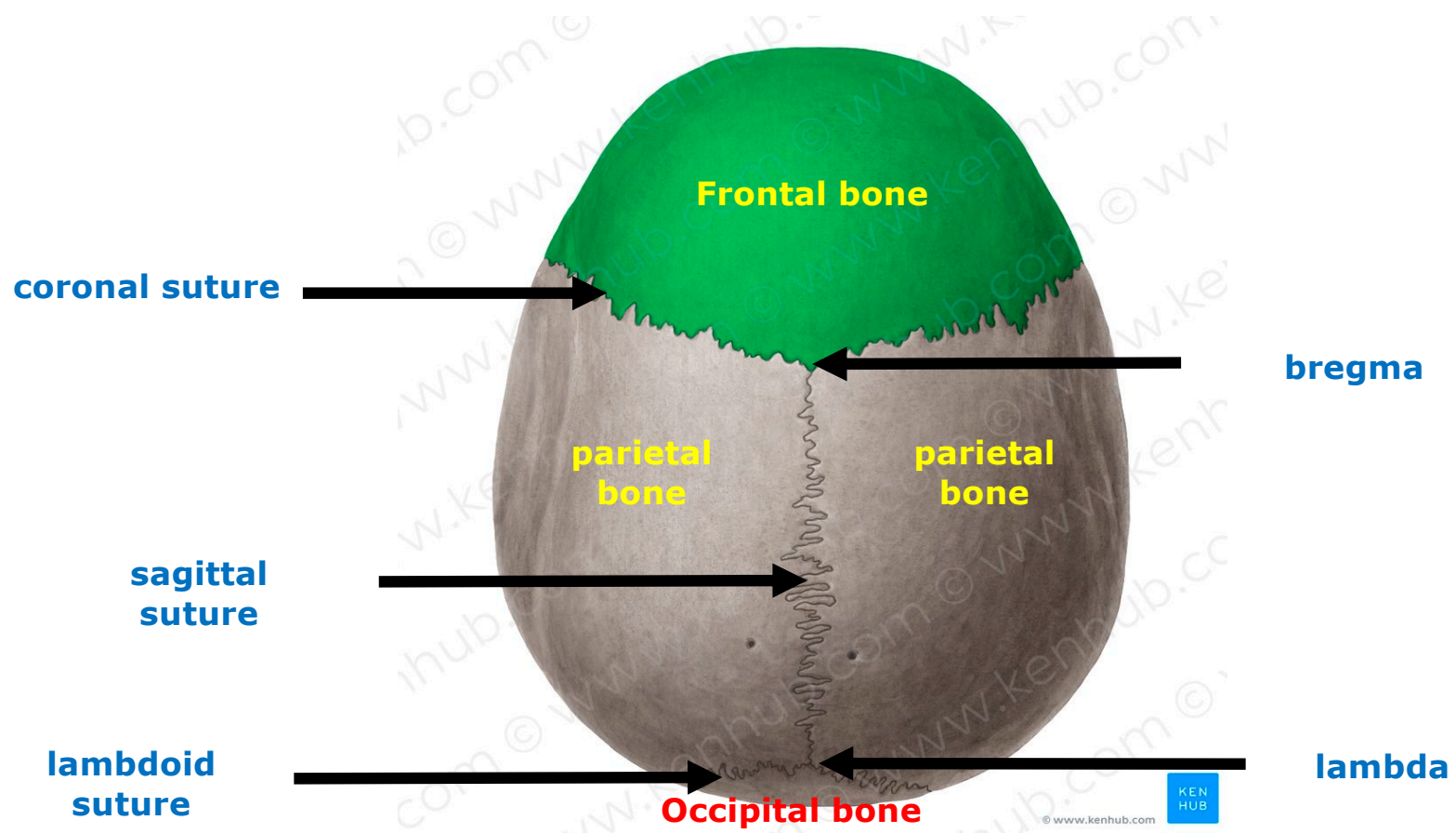
- Anteriorly : The frontal bone
- Laterally : The two parietal bones
- Posteriorly : The occipital bone

### ➤ **3 sutures :**

The coronal suture : between the frontal bone and the two parietal bones.

The sagittal suture : between the two parietal bones.

The lambdoid suture : between the occipital bone and the two parietal bones.



## ➤ 2 meeting points :

### **The bregma :**

- ❑ Is the meeting of the coronal and sagittal sutures.
- ❑ It is the site of the anterior fontanelle

### **The lambda :**

- ❑ Is the meeting of the lambdoid and sagittal sutures.
- ❑ It is the site of the posterior fontanelle .

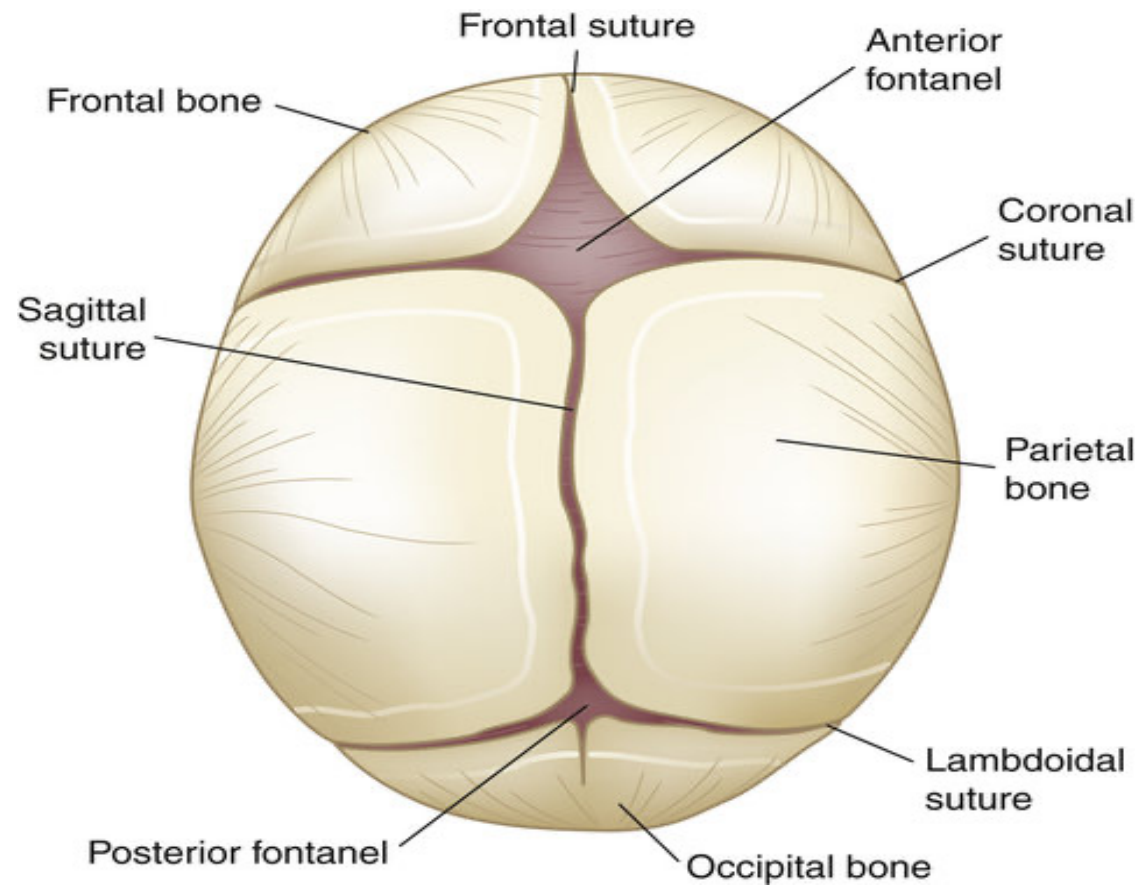
## ➤ 2 Fontanelle :

### **Anterior fontanelle**

- ❑ It is a membrane-filled rhomboidal area.
- ❑ It usually closes 1.5-2 years after birth.
- ❑ It is the site of the bregma

### **Posterior fontanelle**

- ❑ It is a membrane-filled triangular area
- ❑ It usually closes 3-6 months after birth
- ❑ It is the site of the lambda.



# **Norma Occipitalis**

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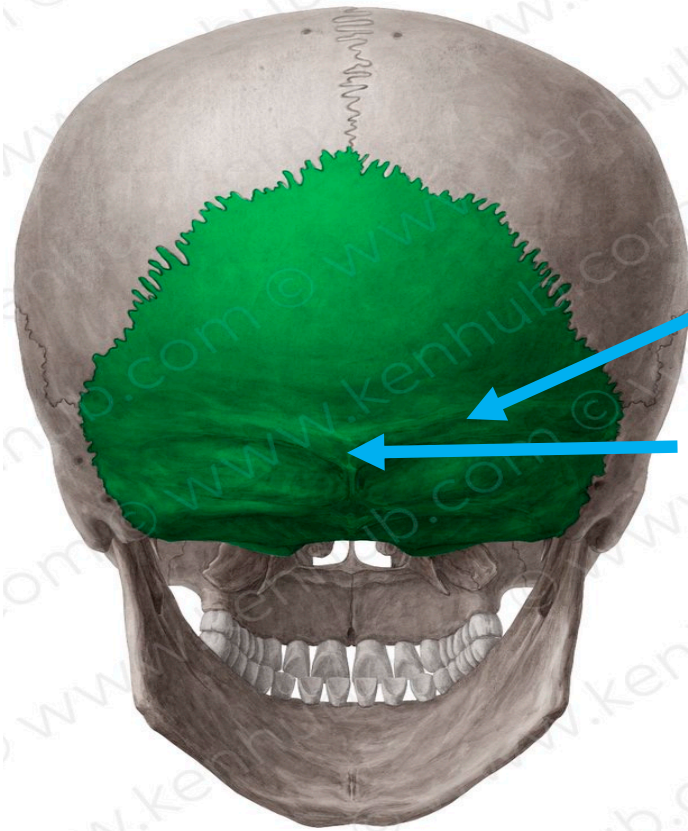




## **Norma Occipitalis:**

Special Features :

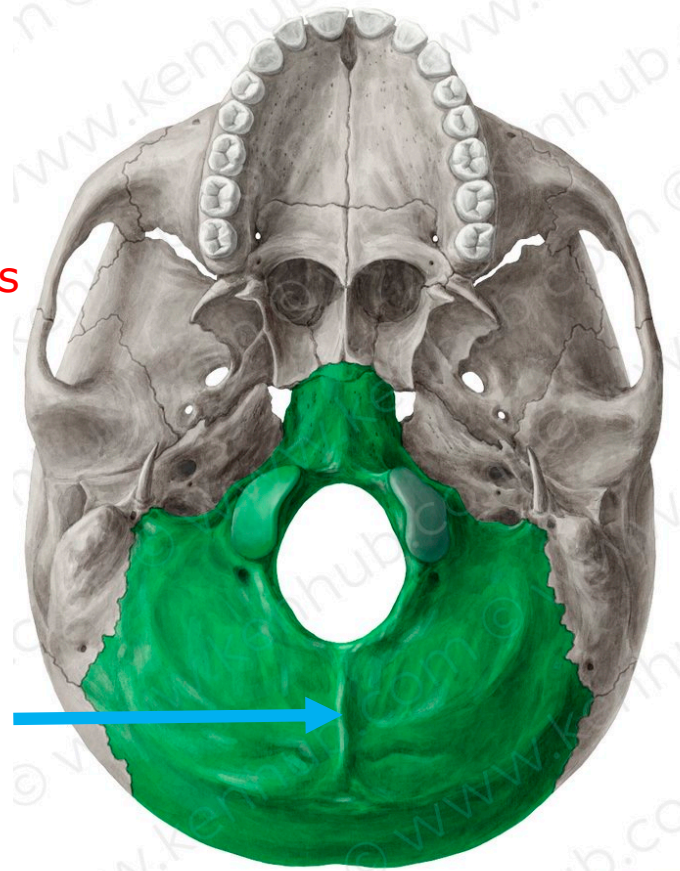
- External occipital protuberance : is a median elevation on the occipital bone. **(It is the most prominent point of the occipital bone )**
- External occipital crest : extends from the protuberance to the foramen magnum.
- The superior nuchal lines : extend laterally from the protuberance.



Superior nuchal lines

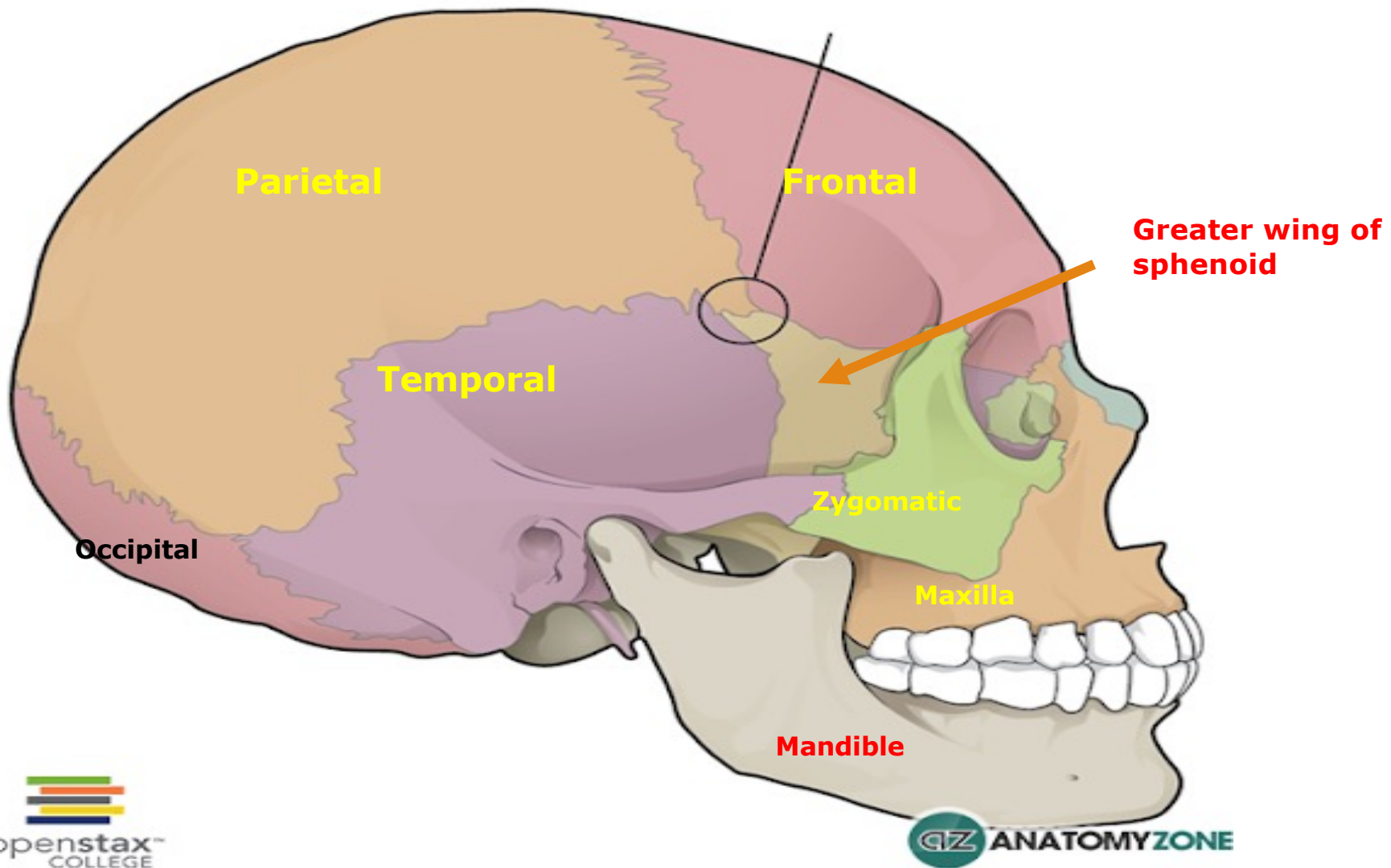
External occipital protuberance

External occipital crest



# Norma Lateralis

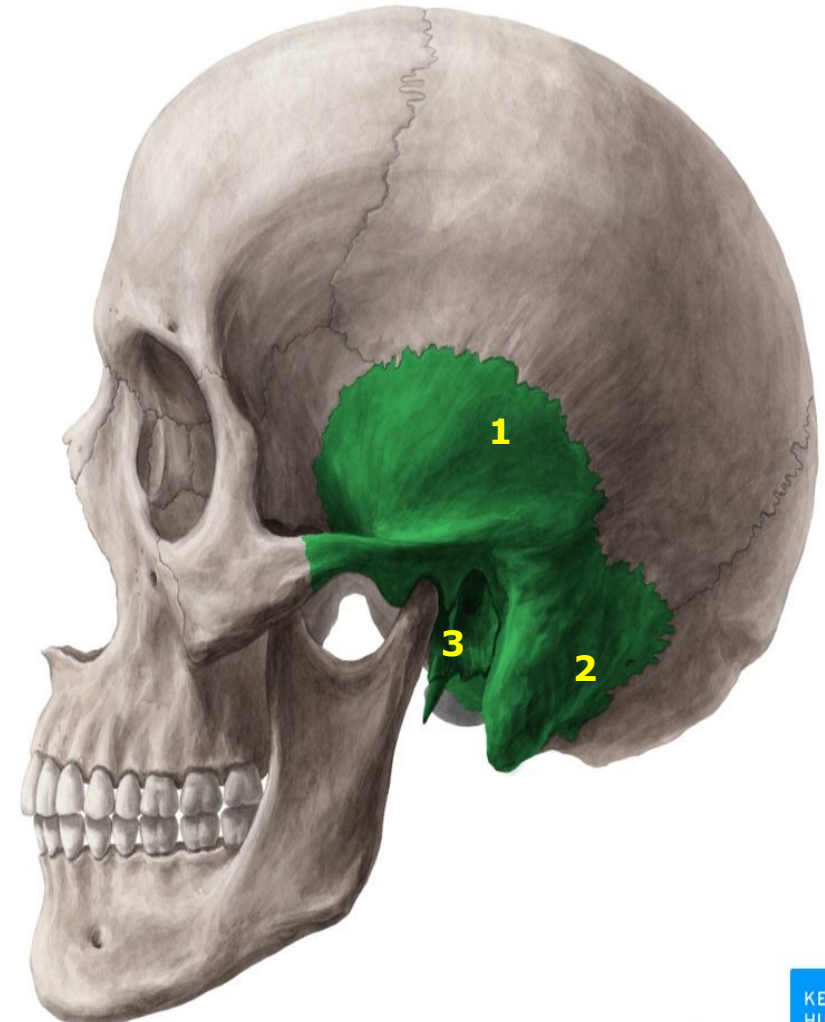
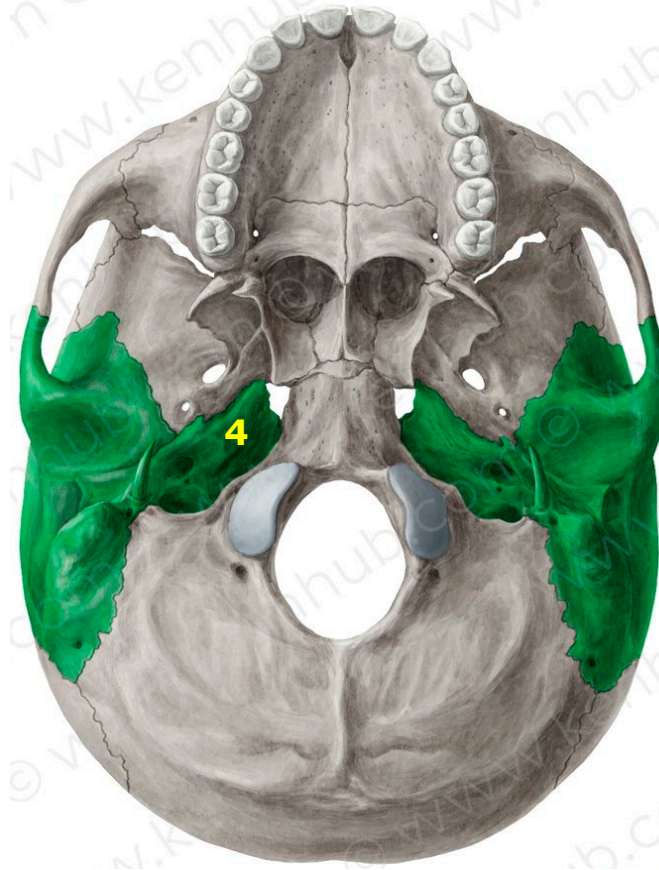
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# Temporal bone

Is composed of 4 parts

1. Squamous
2. Mastoid
3. Tympanic
4. Petrous

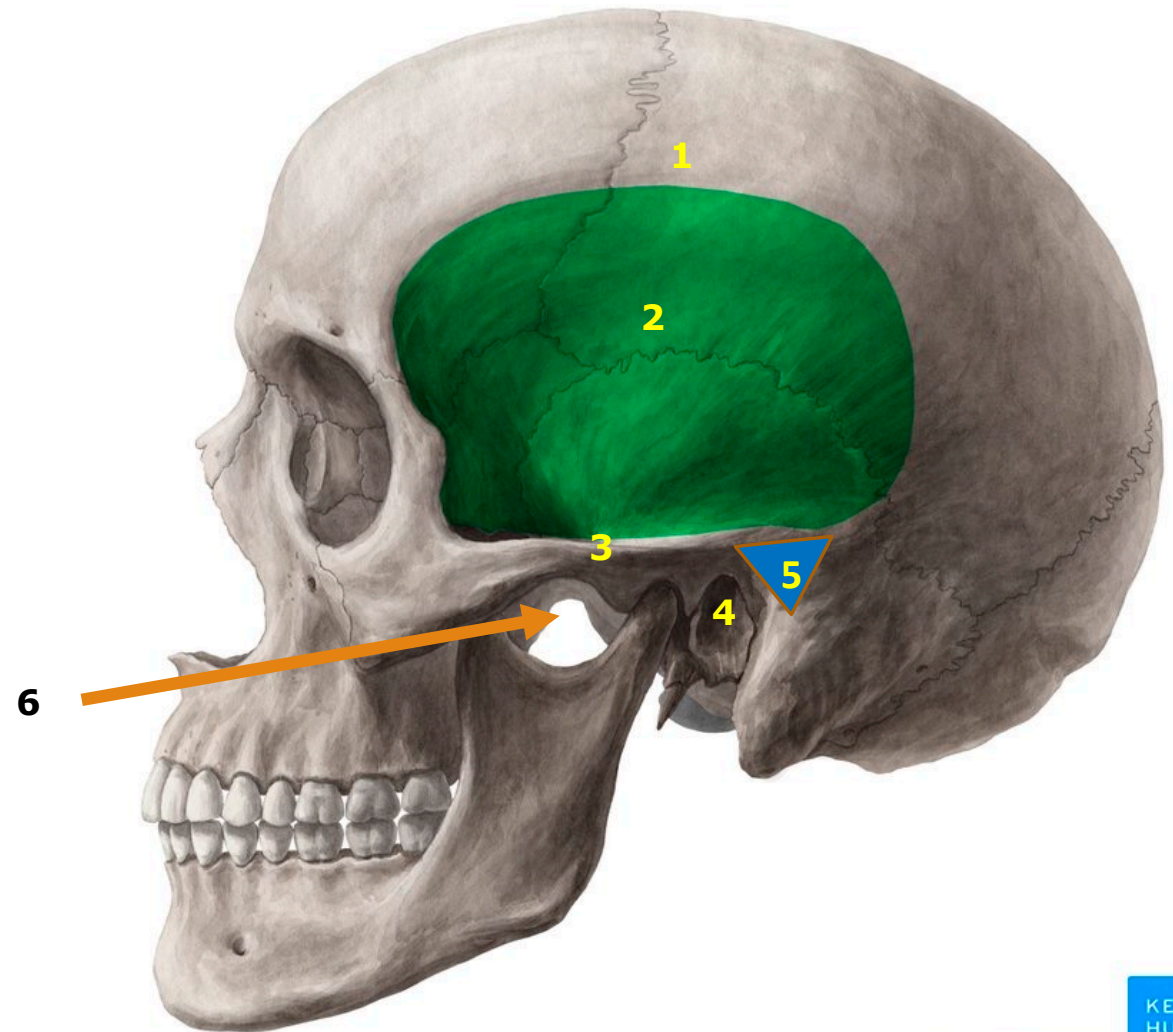


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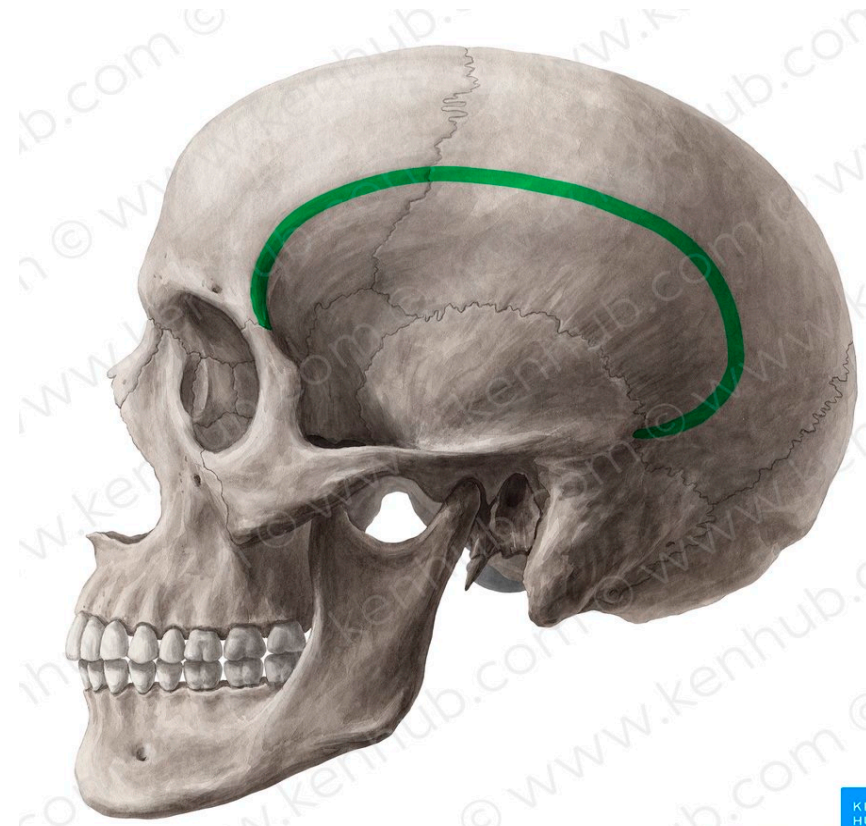




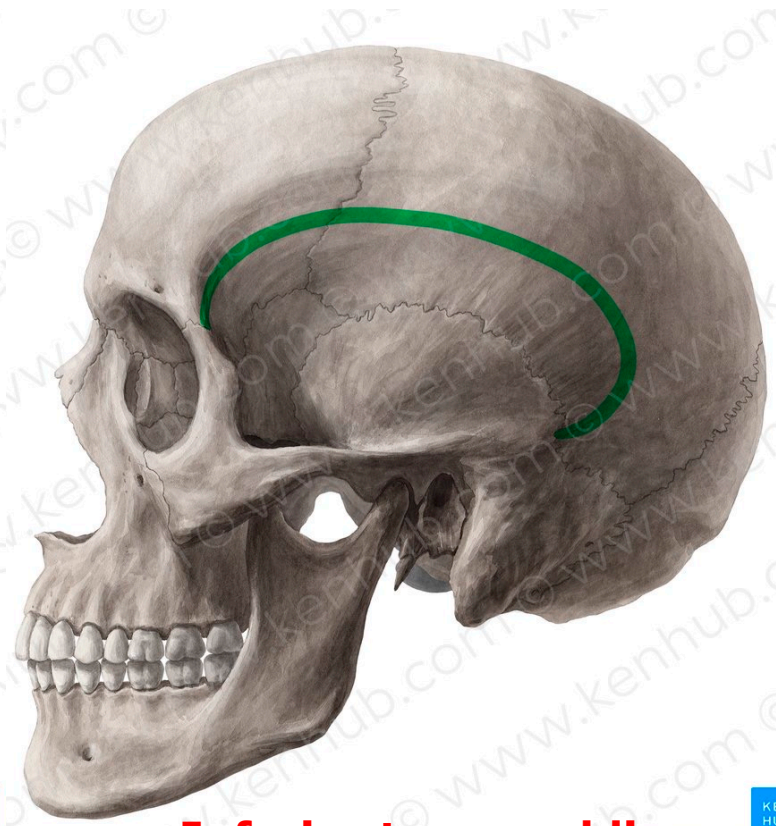
1. Temporal lines  
(superior and inferior )
2. Temporal fossa
3. Zygomatic arch
4. The External Auditory Meatus
5. Suprameatal triangle
6. Infratemporal fossa







**Superior temporal line**



**Inferior temporal line**

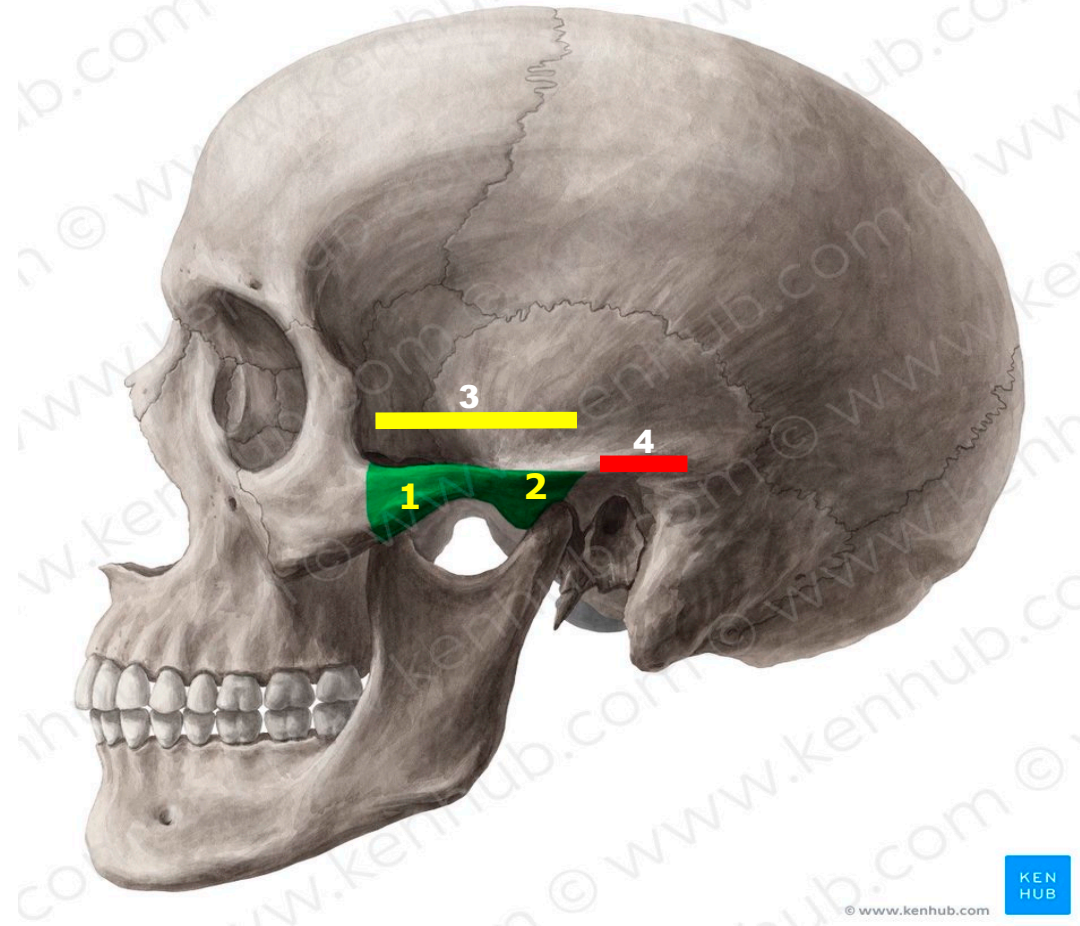


## **The Zygomatic Arch (Zygoma):**

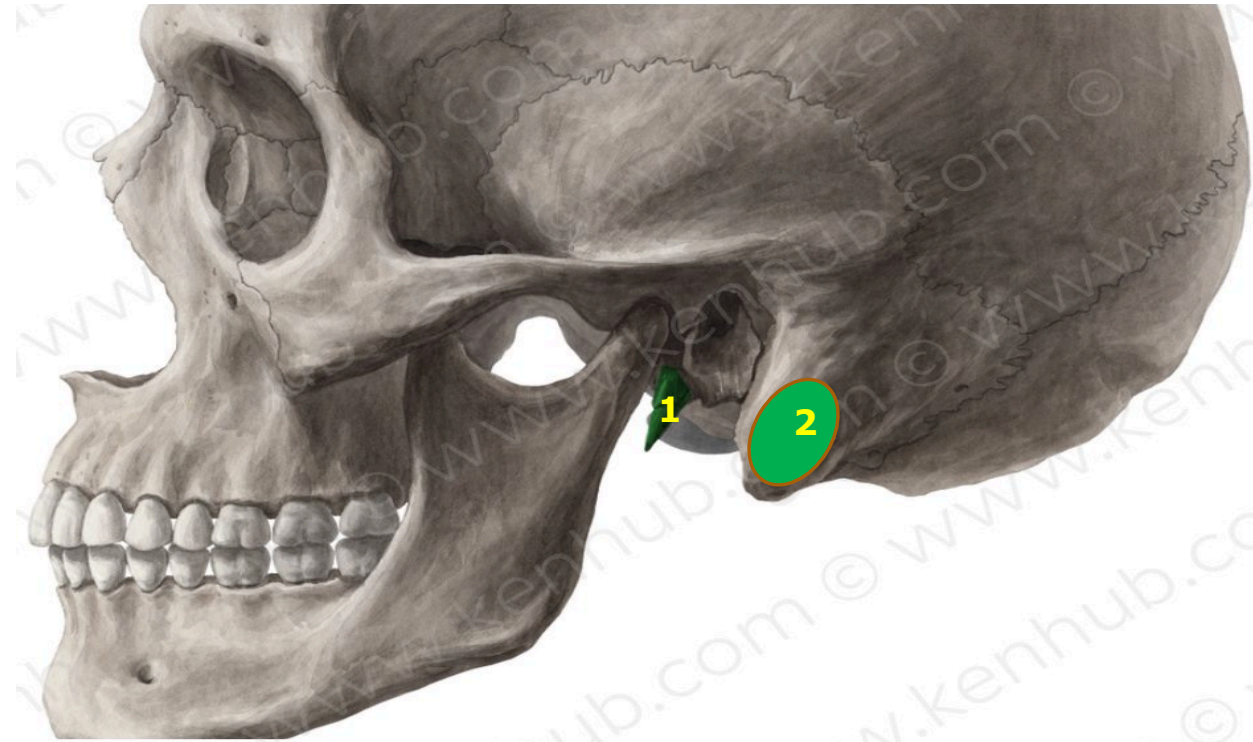
- It is formed by the temporal process of the zygomatic bone and the zygomatic process of temporal bone.

It is posterior root passes above the external auditory meatus and joins the supramastoid crest.

1. Temporal process of Zygoma
2. Zygomatic process of temporal bone
3. Zygomatic arch
4. Supramastoid crest



- 1- Styloid process
- 2- Mastoid process

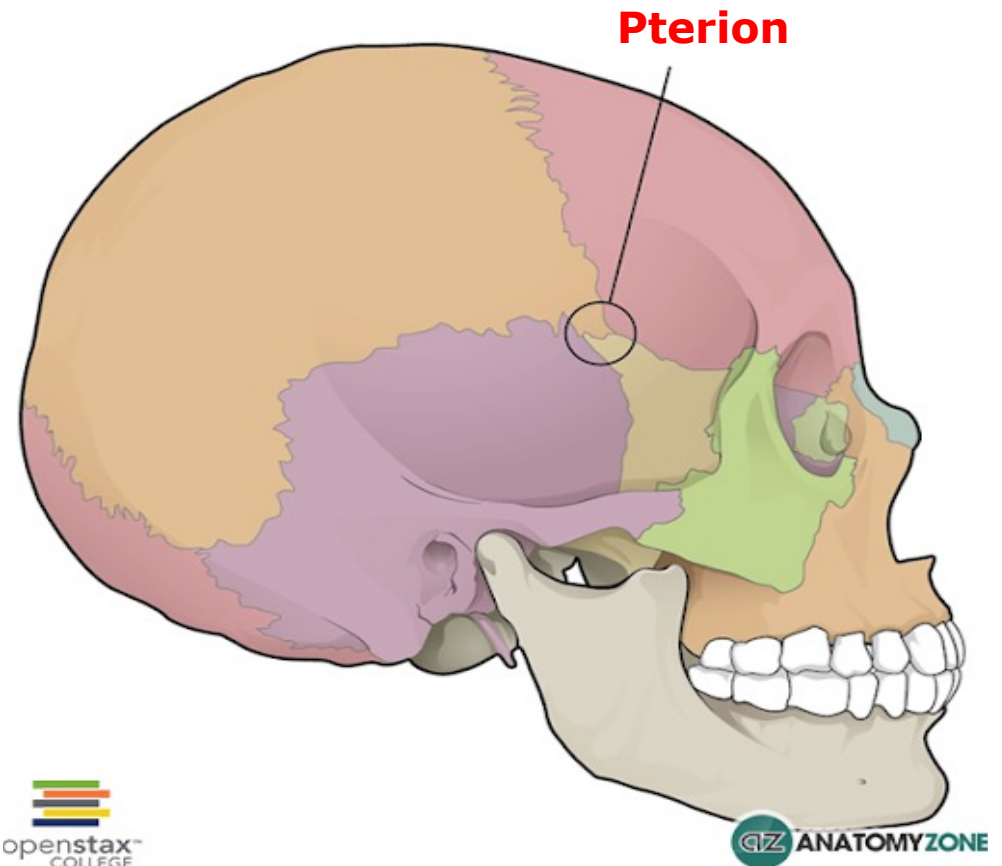
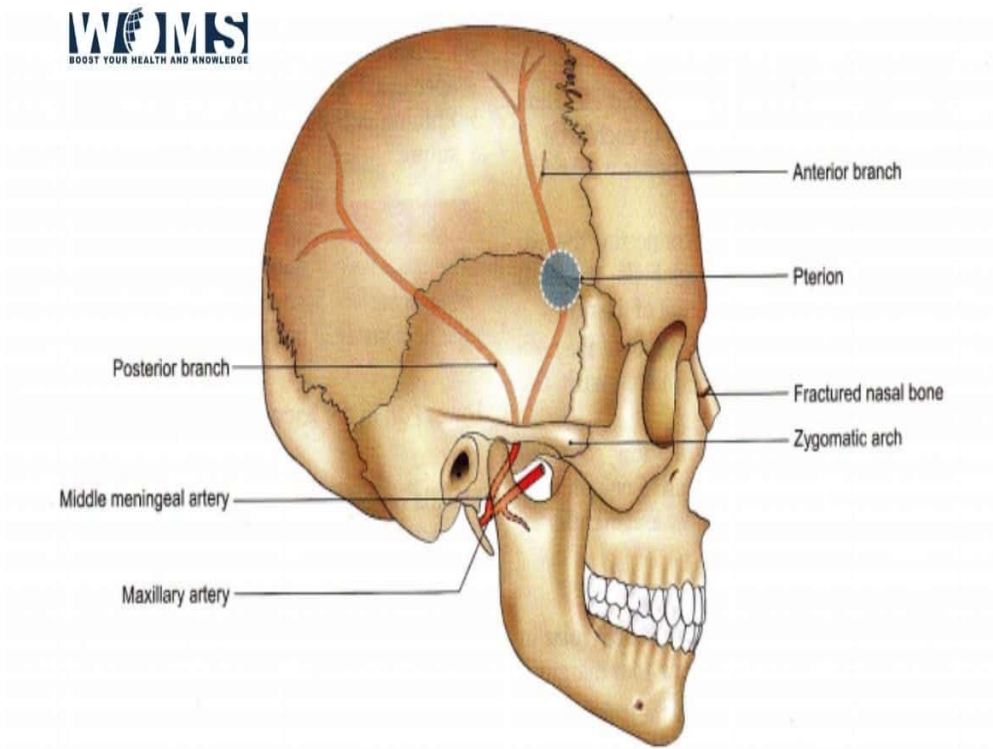




# Pterion

It is H-shaped suture represent the meeting of frontal, parietal, squamous temporal and the greater wing of the sphenoid bones

It overlies the intracranial course of the frontal branch of the middle meningeal Artery



**THANK YOU**