

# Anatomy

## Lec. 3

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### The Frontal bone:

The frontal bone is shell-shaped bone, forms the main part of the forehead and the anterior portion of the cranium it consists of two parts:

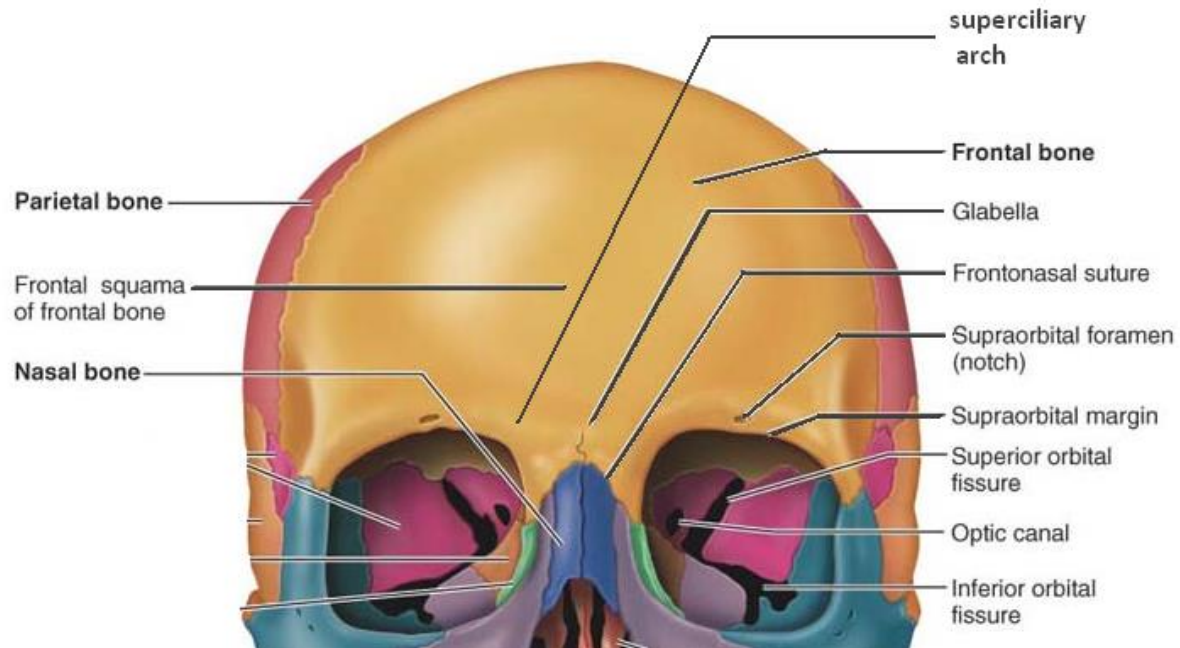
1. Vertical part: it called **squamous part** of frontal bone. It has convex outer surface which forms the main part of forehead and the anterior part of the vault of the skull.
2. Horizontal part: it also called **orbital part** which consists of two thin triangular plates that form the arch roof of the orbits.

The anatomical landmarks :

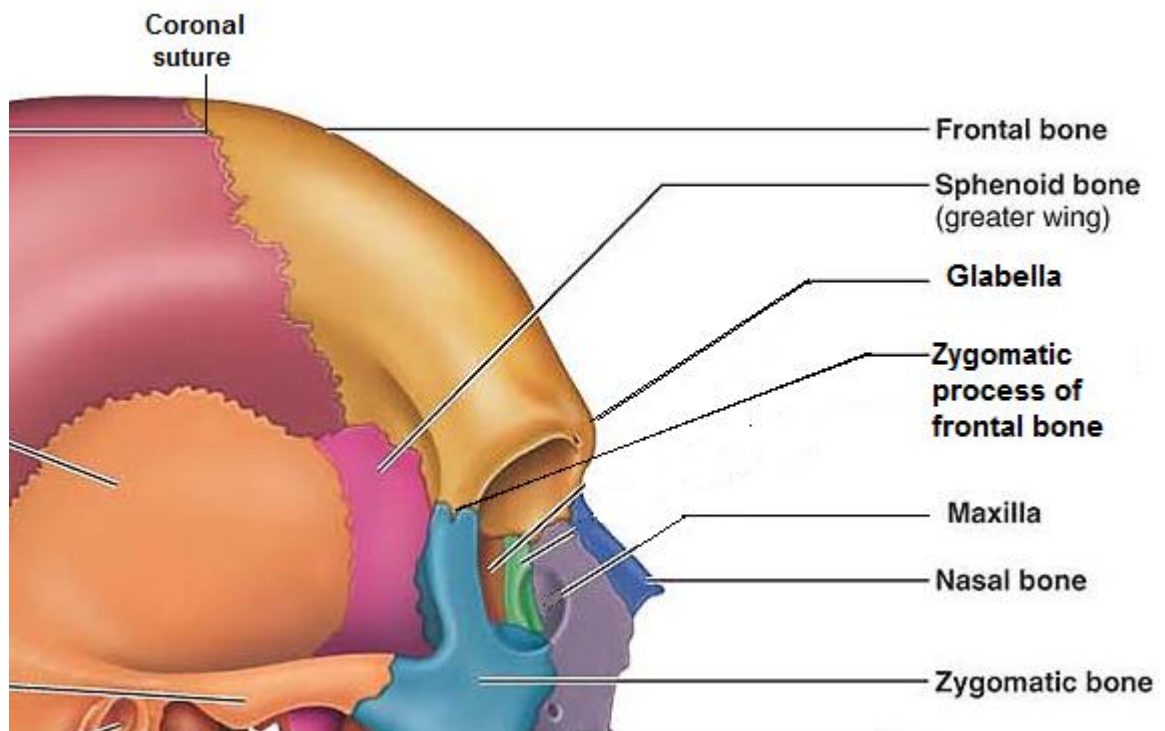
- **Superciliary arch:** it can be seen in either side.
- **Supraorbital margin :** The frontal squama ends inferiorly at the supraorbital margins, which is form the thickened superior margins of the orbits .
- **Supraorbital notch or foramen.**
- **Frontal notch.**
- **Glabella:** is the smooth portion of the frontal bone between the orbits.
- **Frontal air sinuses:** is hollow spaces areas lateral to the glabella just above the orbital margin lined with mucous membrane.

### Articulation of the frontal bone:

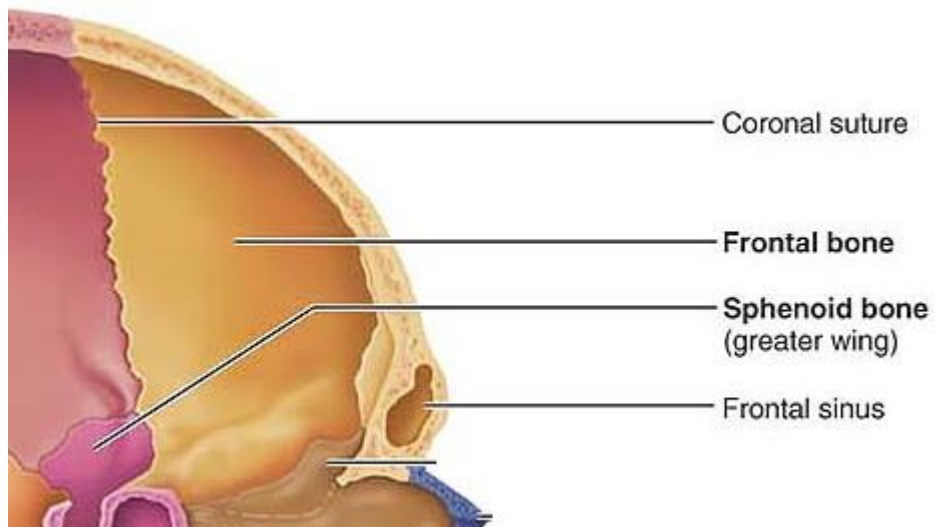
- **Medially :** articulates with frontal process of the maxilla and with nasal bone.
- **Laterally :** articulates with frontal process of the zygomatic bone by zygomatic process of frontal bone.
- **Posteriorly :** articulates with two parietal bones by coronal suture.



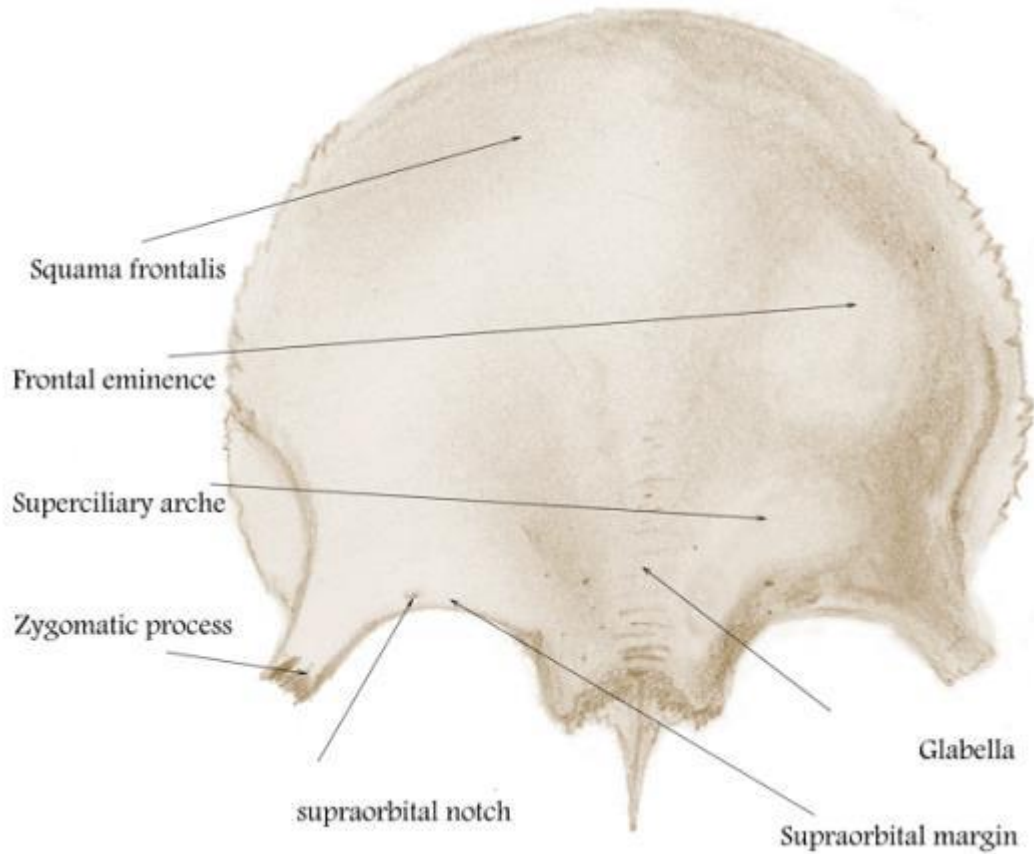
**Anterior view of frontal bone**



**Lateral view of frontal bone**



### Internal view of frontal bone

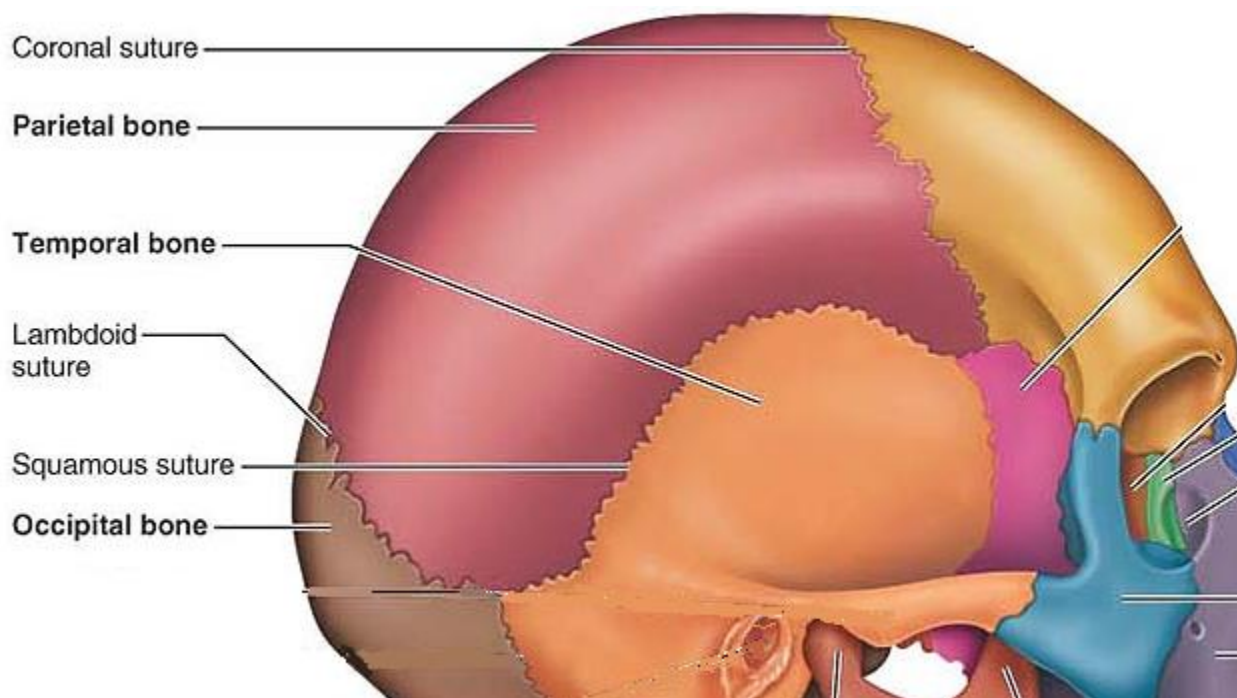


## The Parietal Bones :

The two large parietal bones are curved, rectangular bones that form most of the superior and lateral aspects of the skull; they form the bulk of the cranial vault. The two parietal bones articulate with each other in the midline at sagittal suture.

### Articulation of the Parietal bones:

- **Medially** : articulates with each other at sagittal suture.
- **anteriorly** : articulates with frontal bone by coronal suture.
- **Posteriorly** : articulates with occipital bone by lambdoid suture.
- **Laterally**: articulates with temporal bone by squamous suture

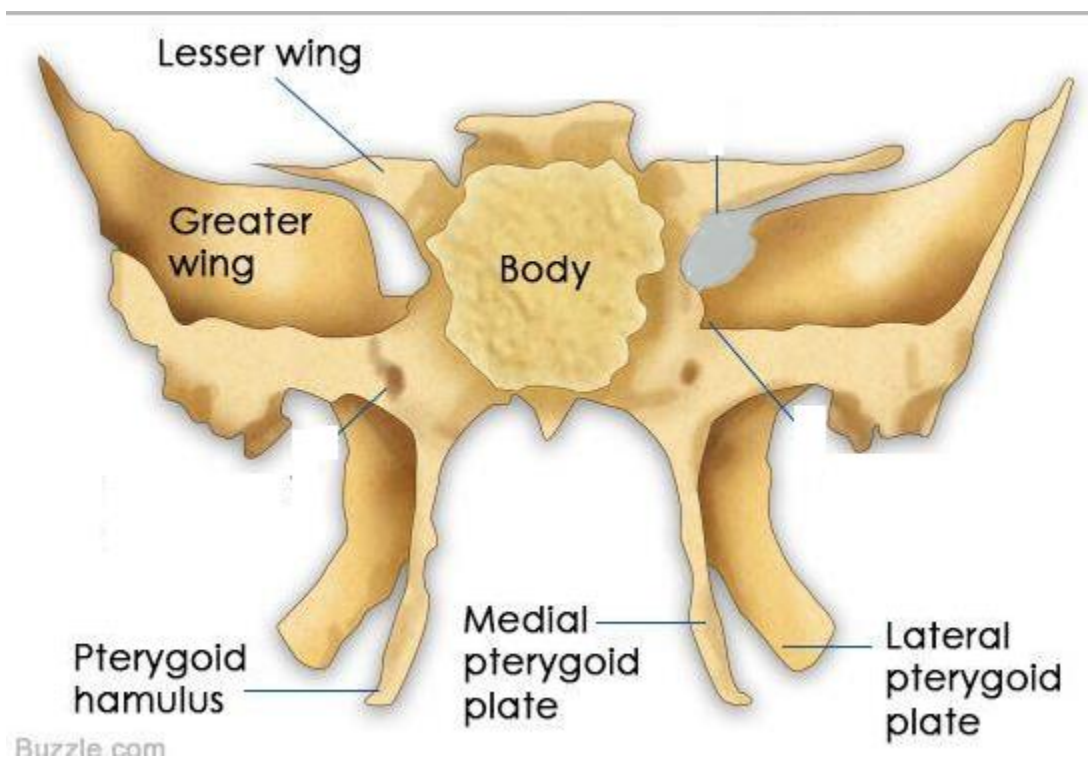


**The parietal bone**

## **The Sphenoid Bone:**

The butterfly-shaped sphenoid bone located in the middle cranial fossa. The sphenoid forms a central wedge that articulates with all other cranial bones. It consists of a central body and three pairs of processes: the greater wings, lesser wings, and pterygoid processes: 1. Medial pterygoid plate.

2. Lateral pterygoid plate.





## The Occipital Bone:

The occipital bone forms most of posterior wall of the skull. It articulates anteriorly with the paired parietal and temporal bones by the lambdoid and occipitomastoid sutures.

Internally, the occipital bone forms the walls of the posterior cranial fossa, which supports the cerebellum of the brain. In the base of the occipital bone is **the foramen magnum** through which the inferior part of the brain connects with the spinal cord. Superior to the foramen magnum is a median protrusion called the external occipital protuberance. Also there are ridges: the external occipital crest and the superior and inferior nuchal lines.

