

# Anatomy

Dr. Afrah Majeed

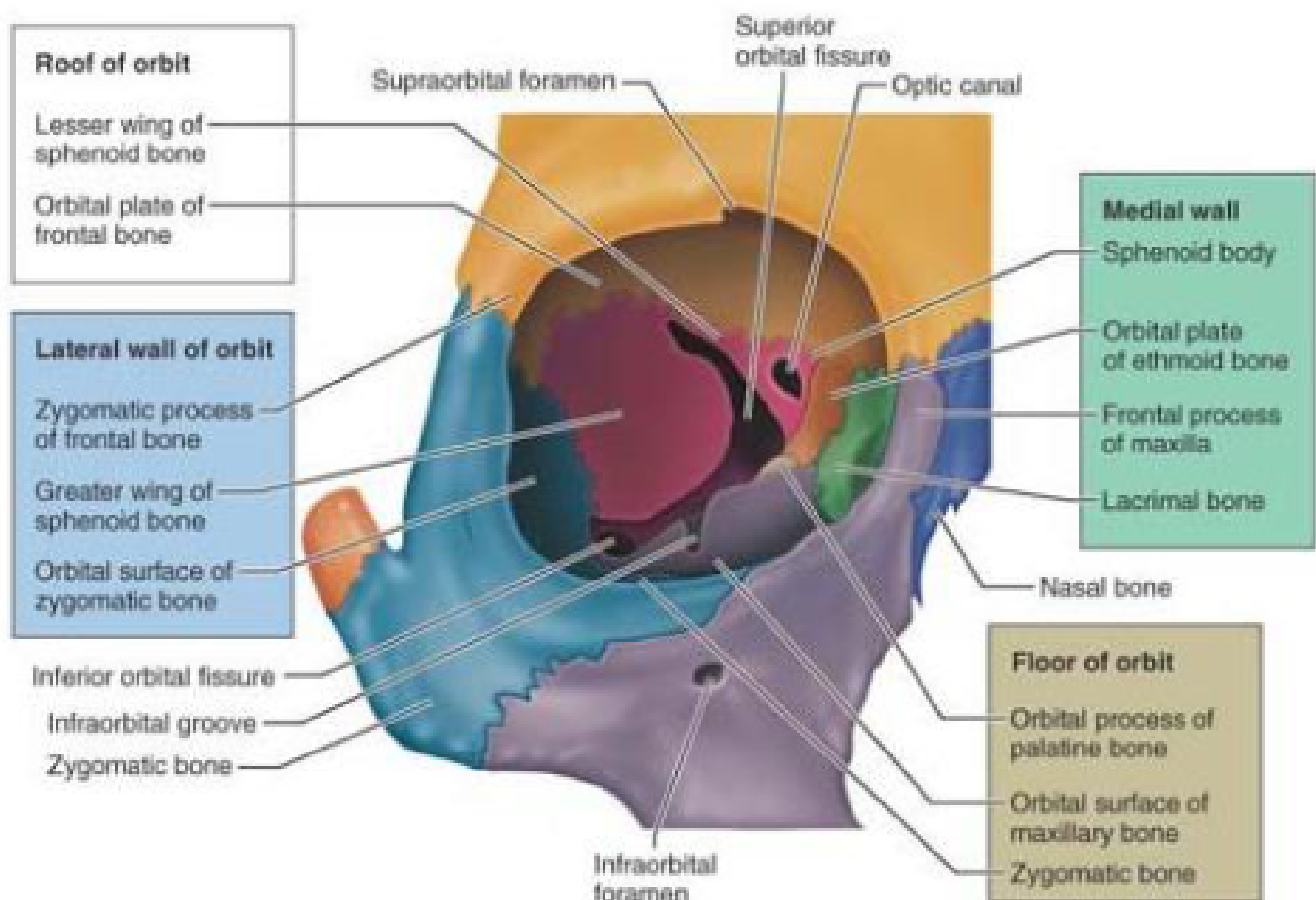
## Lec. 9

### The orbit

The orbit are pairs of bony cavities in the skull when viewed from the anterior that contain the eyeball and their associated muscles, nerves and vessels, together with the lacrimal apparatus. The cavity of the orbit is shaped somewhat like a **four-side pyramid** lying on its side, with its apex pointing posteriorly and its base anteriorly

**The seven bones that articulate to form the orbit:**

1. Frontal bone.
2. Lacrimal bone.
3. Ethmoid bone.
4. Zygomatic bone.
5. Maxillary bone.
6. Palatine bone.
7. Sphenoid bone.



## The Orbital Margin

- The **frontal**, **maxillary** and **zygomatic** bones contribute equally to the formation of the orbital margin.
- The **supraorbital margin** is composed entirely of the frontal bone.
- At the junction of the medial and middle thirds there is the **supraorbital foramen** (sometimes a notch), which transmits the supraorbital nerves and vessels.
- The **lateral orbital margin** is formed almost entirely of the frontal process of the zygomatic bone.
- The **infraorbital margin** is formed by the zygomatic bone laterally and the maxilla medially.
- The **medial orbital margin** is formed superiorly by the frontal bone and inferiorly by the frontal process of the maxilla.

## The Walls of the Orbit

- Each orbit has **four walls: superior (roof), medial, inferior (floor) and lateral.**

## The Superior Wall (Roof) of the Orbit

- The superior wall or **roof of the orbit** is formed almost completely by the **orbital plate** of the **frontal bone**.
- Posteriorly, the superior wall is formed by the lesser wing of the **sphenoid bone**.
- The **optic canal** is located in the posterior part of the roof.

## The Medial Wall of the Orbit

- Formed by frontal process of maxilla, lacrimal bone, orbital plate of ethmoid and body of sphenoid

## The Inferior Wall of the Orbit

The thin inferior wall of the orbit or the **floor** is formed mainly by the orbital plate of the maxilla and partly by the zygomatic bone, and orbital process of the palatine bone.

## The Lateral Wall of the Orbit

This wall is thick. The lateral wall is formed by zygomatic process of **frontal bone** and the orbital plate of **zygomatic bone** and the greater wing of the **sphenoid bone**.

## Opening into the orbital cavity

The main orbital openings are:

1. The supraorbital notch, or canal, is situated on the superior orbital margin
2. The infraorbital groove and canal lie on the floor of the orbit.
3. Posteriorly is the inferior orbital fissure which is separated the lateral wall of the orbit and floor of the orbit.
4. The superior orbital fissure.
5. The optic canal.
6. On the medial wall are the anterior and posterior ethmoidal foramina along the suture between the ethmoid and frontal bones.