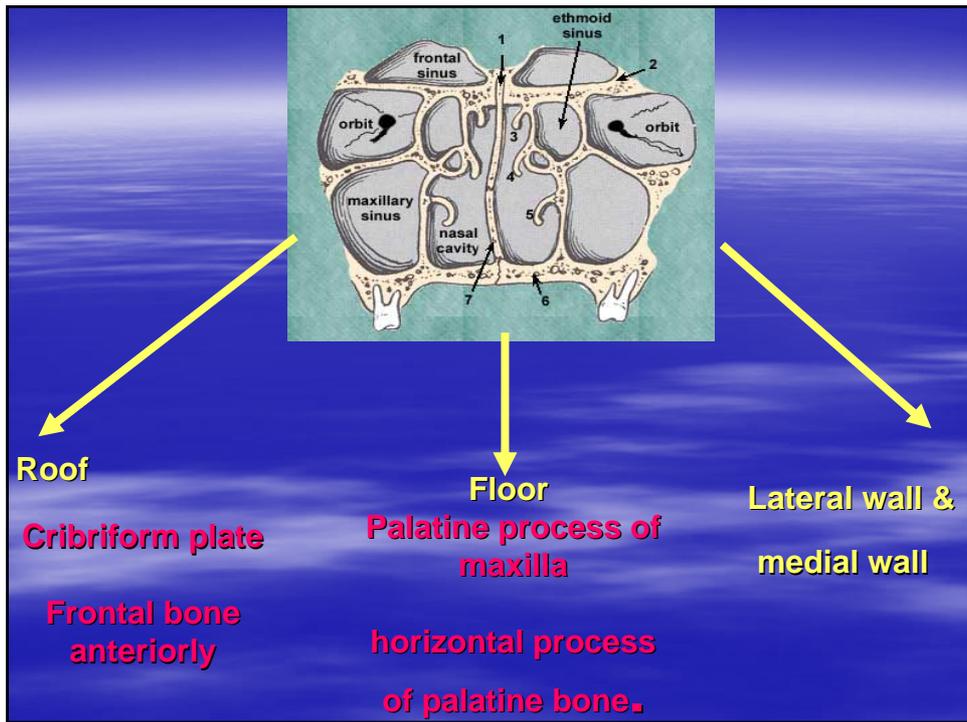


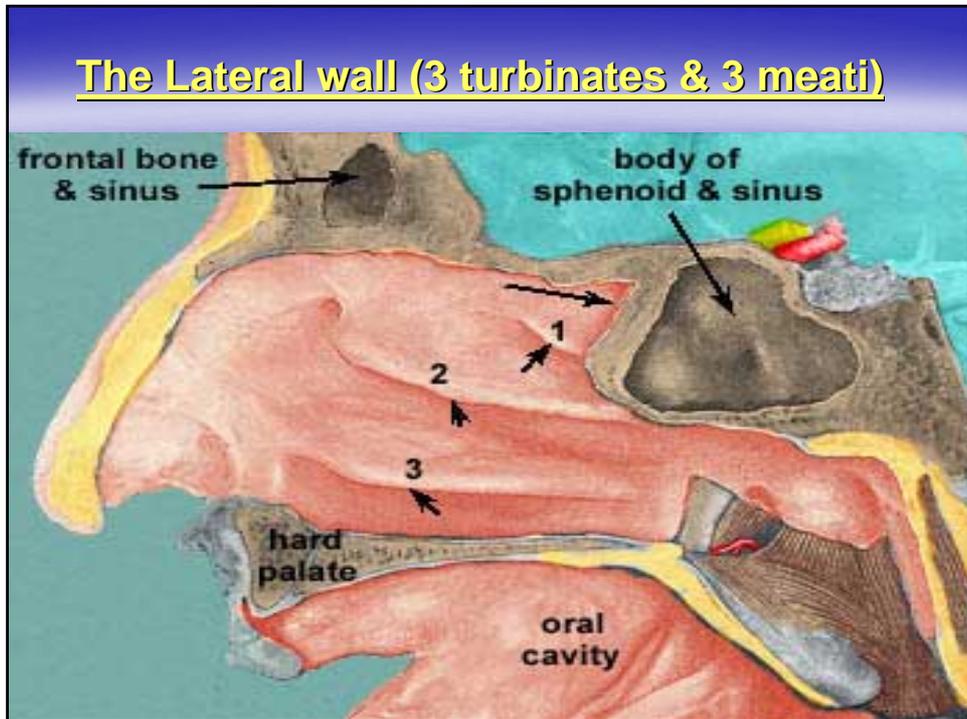
Anatomy of the nose

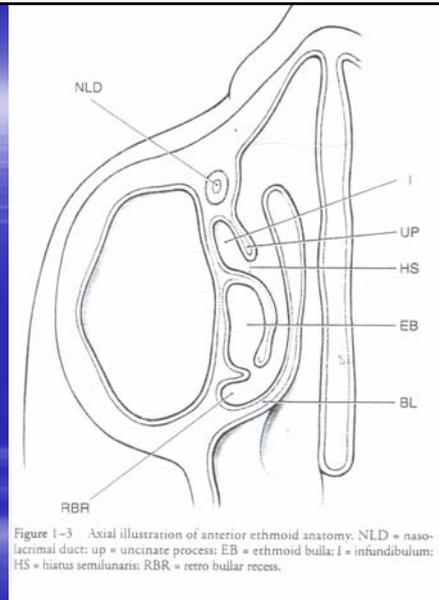
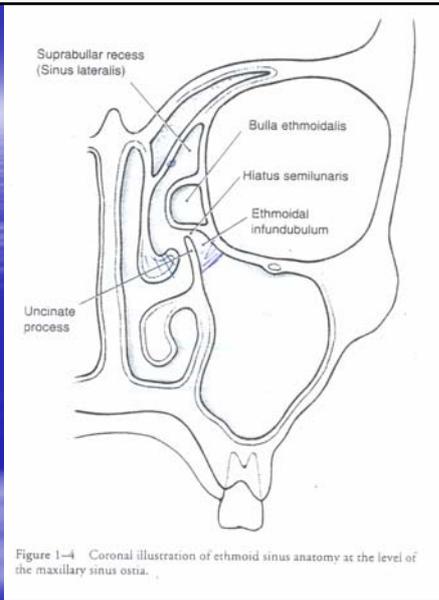
Ahmed Aly Ibrahim

- **A midline structure extending from the skull base to the hard palate.**
- **Divided by the nasal septum into two nearly symmetrical cavities.**
- **Extending from the anterior nares till the choana (nasopharynx)**



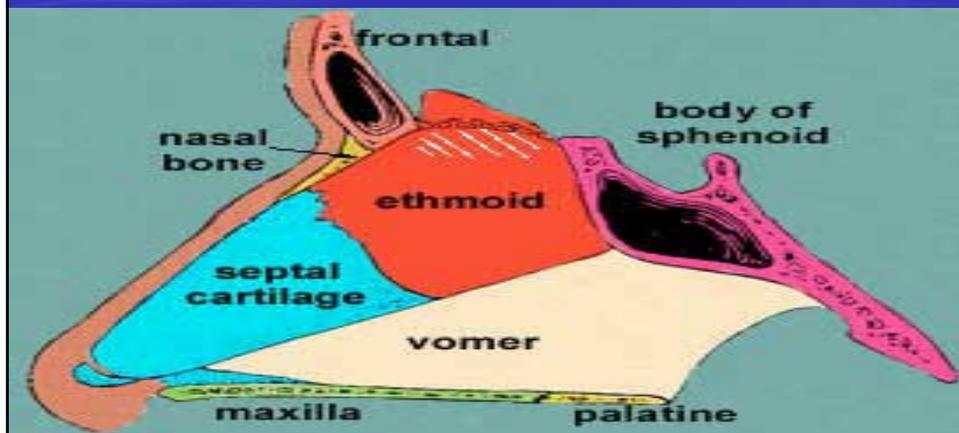
The Lateral wall (3 turbinates & 3 meati)

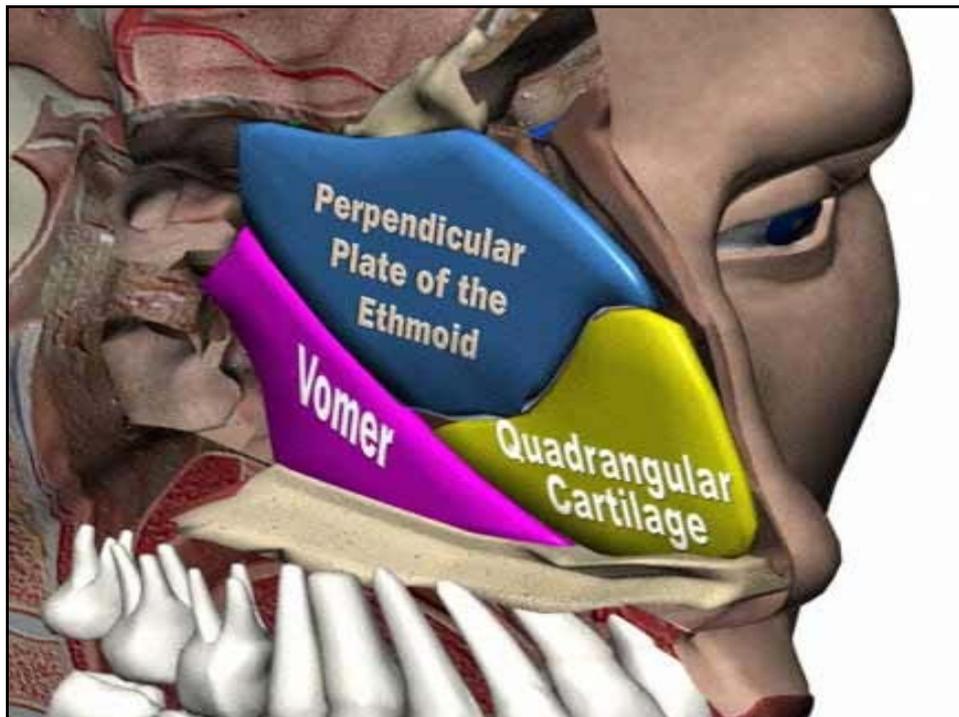




Anatomy of the nasal septum

- **Bony septum:** perpendicular plate of ethmoids
Vomer bone.
- **Cartilagenous septum:** septal cartilage.





The external nose

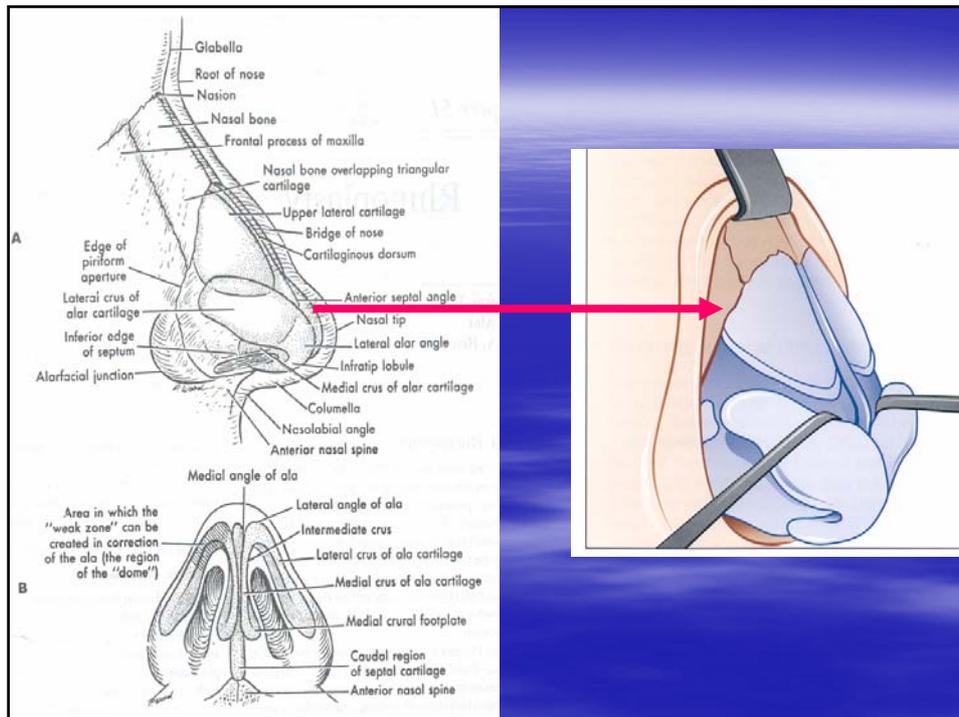
- It is pyramidal in shape .
- Attached to the forehead at the **nasal root**, Its lower free part is known as **the tip**. (the most projecting part of the nose.)
- The **Bridge** connects the tip to the root.

External nose

Boney part

Cartilagenous part





The interior of the nose

- **The vestibule:** The most anterior part of the nose.
- **The olfactory area :** The upper part of the nose related to the superior turbinate, cribriform plate.
lined by columnar non ciliated cells
- **The Respiratory area:** The rest of the nasal cavity.
Lined by pseudo stratified columnar ciliated with goblet cells.

Functions of the nose

Respiratory function: Air way, purification of air.

Olfactory function: in the olfactory area.

Phonatory function: resonance of voice.

Other functions: Lacrimal fluid drainage.
Reflex function.



Choanal atresia

Congenital narrowing or complete occlusion of the posterior nasal opening (choana).due to persistent bucconasal membrane.

Incidence

1/10,000 live births and may be associated with other congenital abnormalities.

It is commoner in females with 2:1.

It may be unilateral (75%) or bilateral (25%), partial or complete, membranous (10%) or bony (90%).v

Clinical Picture

Unilateral atresia: .A

1. Unilateral nasal obstruction.
2. Unilateral mucous discharge.
3. No airflow can be demonstrated by holding a small mirror
4. A soft catheter can not be passed through the affected side.
Likewise, methylene blue drips instilled into the affected side fail to appear in the pharynx.
5. Endoscopic examination confirms the diagnosis and shows the extent of atresia.

B. Bilateral atresia:

Difficulty in breathing immediately after birth which constitute a medical emergency.

The cyanosis and dyspnea may decrease on Crying. Difficulty in feeding.

The nasal cavities appear blocked with thick mucoid discharge.

Investigations

1. Axial CT scans show the atretic plate and allow measuring its thickness.
2. Lateral radiographs of the head after instillation of radiopaque dye show arrest of the dye at the posterior end of the nasal cavity.

Treatment

- A. Unilateral cases:
- B. Bilateral cases:
 1. An oral airway is used as an emergency treatment and a special nipple (McGovern nipple)
 2. The atretic plates are perforated as soon as the condition of the baby permits.