

"Paranasal Sinuses"

-> Introduction:

- Are cavities in the interior of the maxilla, frontal, sphenoid and ethmoid bone
 - Lined with mucoperiosteum
 - Filled with air
- Communicate with nasal cavity through small apertures

-> Function:

- Decrease weight of skull by 7% to 20%
 - Resonators of voice
 - Increase quality of voice
- Responsible for the postnatal growth of facial skeleton

-> Drainage of Mucous:

- Drainage occurs by:

- 1) Ciliary action of columnar cells
- 2) Siphon action (differences in pressure) created during blowing of nose

-> Development

- Most sinuses develop postnatally
- Maxillary and sphenoid sinuses are present in a rudimentary form at birth → enlarge appreciably after the 8th year → achieve full form in adolescence

● Maxillary Sinus

- Pyramidal in shape
- Located within the body of maxilla behind the skin of cheek

» Extent:

- Roof: Floor of orbit
- Floor: Roots of premolar and molar teeth

» Opening:

- Opens into middle meatus through hiatus semilunaris

● Frontal Sinuses

- Two in number
- Separated from each other by a bony septum
- Triangular in shape

» Extent

- Superiorly: Medial end of eyebrow
- Posteriorly: Medial part of roof of orbit

» Opening

- Opens into middle meatus of nose through infundibulum

● Sphenoid Sinuses

- Lie within the body of the sphenoid bone
- A thin bony septum separates the sinuses

» Opening

- Opens into sphenoethmoidal recess above superior concha

● Ethmoid Sinuses

- 3 in number : Anterior + Middle + Posterior
→ All present within ethmoid bone between nose and orbit
- Separated from the orbit by a thin plate of bone

» Opening

- > Anterior ethmoidal air cells → Infundibulum
- > Middle ethmoidal air cells → Middle meatus or bulla ethmoidalis
- > Posterior ethmoidal air cells → Superior meatus

SINUS	SITE OF DRAINAGE
Maxillary sinus	Middle meatus through hiatus semilunaris
Frontal sinuses	Middle meatus via infundibulum
Sphenoid sinuses	Sphenoethmoidal recess
Ethmoid sinuses	
Anterior group	Infundibulum and into the middle meatus
Middle group	Middle meatus on or above bulla ethmoidalis
Posterior group	Superior meatus