

The Nose

The nose consists of the external nose & the nasal cavity.

***nasal cavity** extend from the nostrils . or nares , in front to the **choanae** behind .it is divided into right & left halves by the nasal **septum**. Each half has a floor , a roof , & a lateral wall & medial wall.*

*The **floor** is formed by the palatine process of the maxilla & the horizontal plate of the hard palate . the **roof** is narrow & is formed from behind forward by the body of the sphenoid , the cribriform plate of the ethmoid , the frontal bone , the nasal bone & the nasal cartilages .*

*The **lateral wall** is marked by three projections called the **superior , middle , inferior nasal conchae** . the area below each concha is referred to as **meatus** . The **spheno- ethmoidal recess** is a small area of the nose that lies above the superior concha and in front of the body of the sphenoid bone. it receives the opening of the **sphenoid air sinus** .*

*The **superior meatus** lie below & lateral to the superior concha . it receives the opening of the **posterior ethmoidal sinuses** .*

*The **middle meatus** lies below and lateral to the middle concha. it has on its lateral wall a rounded prominence , the **bulla ethmoidalis**, caused by the bulging of the underlying middle ethmoidal air sinuses , which open on its upper border .A curve cleft , the **hiatus semilunaris** , lies immediately below the bulla . The anterior end of the hiatus leads into a funnel – shaped channel called the **infundibulum**. the **maxillary sinus** opens into the middle meatus via the hiatus semilunaris. The **frontal sinus** opens into & is continuous with the infundibulum . The **anterior ethmoidal sinuses** also open into the infundibulum. The middle meatus is continuous in front with a depression called the **atrium**. The atrium is limited above by a ridge, the **agger nasi**. Below & in front of the atrium , & just within the nostril , is the **vestibule**. this is lined by modified skin & possesses short, curved hairs , or **vibrissae**. The **inferior wall ,or nasal septum** ,is an osteocartilaginous partition covered by adherent mucous membrane The upper part is formed by the vertical plate of the ethmoid , & its posterior part is formed by the vomer. The anterior portion is formed by the septal cartilage. The **mucous membrane** lines the nasal*

cavities with the exception of the vestibules , which are with the exception of the vestibules , which are two type of mucous membrane :1- olfactory & 2- respiratory.

The olfactory membrane line the upper surface of the superior concha & the sphenoidal recess. it also lines a corresponding area on the nasal septum & line the roof. its function is the reception of olfactory stimuli, it possesses specialized olfactory nerve cells The central axons of these cells (the **olfactory nerve fiber**) pass, through the opening in the cribriform plate of the ethmoid and end in the **olfactory bulbs**.

The respiratory mucous membrane ,line the lower part of the nasal cavities. its function is to warming process is accomplished by the presence of a plexus of veins in the submucous connective tissue .

The Nerve supply to the nasal cavity ;The **olfactory nerve** for olfaction ,The **nerve of general sensation** are derived from the ophthalmic & maxillary division of the trigeminal nerve

The nerve supply to the anterior part of the nasal cavity comes from the anterior ethmoidal nerve . The nerve supply the posterior part of the nasal cavity comes from the nasal , nasopalatine , & palatine branches of the pterygo-palatine ganglion.

The **arterial supply** to the nasal cavity is derived mainly from branches of the maxillary artery .The most important branch is the sphenopalatine artery which enter the nasal cavity through the pterygopalatine foramen The **veins** form a rich plexus in the submucous. the plexus is drained by veins that accompany the arteries .

The **lymph vessels** draining the vestibule end in the submandibular node . the remainder of the nasal cavity is drained by vessels that pass to the upper deep cervical nodes

Lateral Nasal Wall - Nasal Conchae Removed

