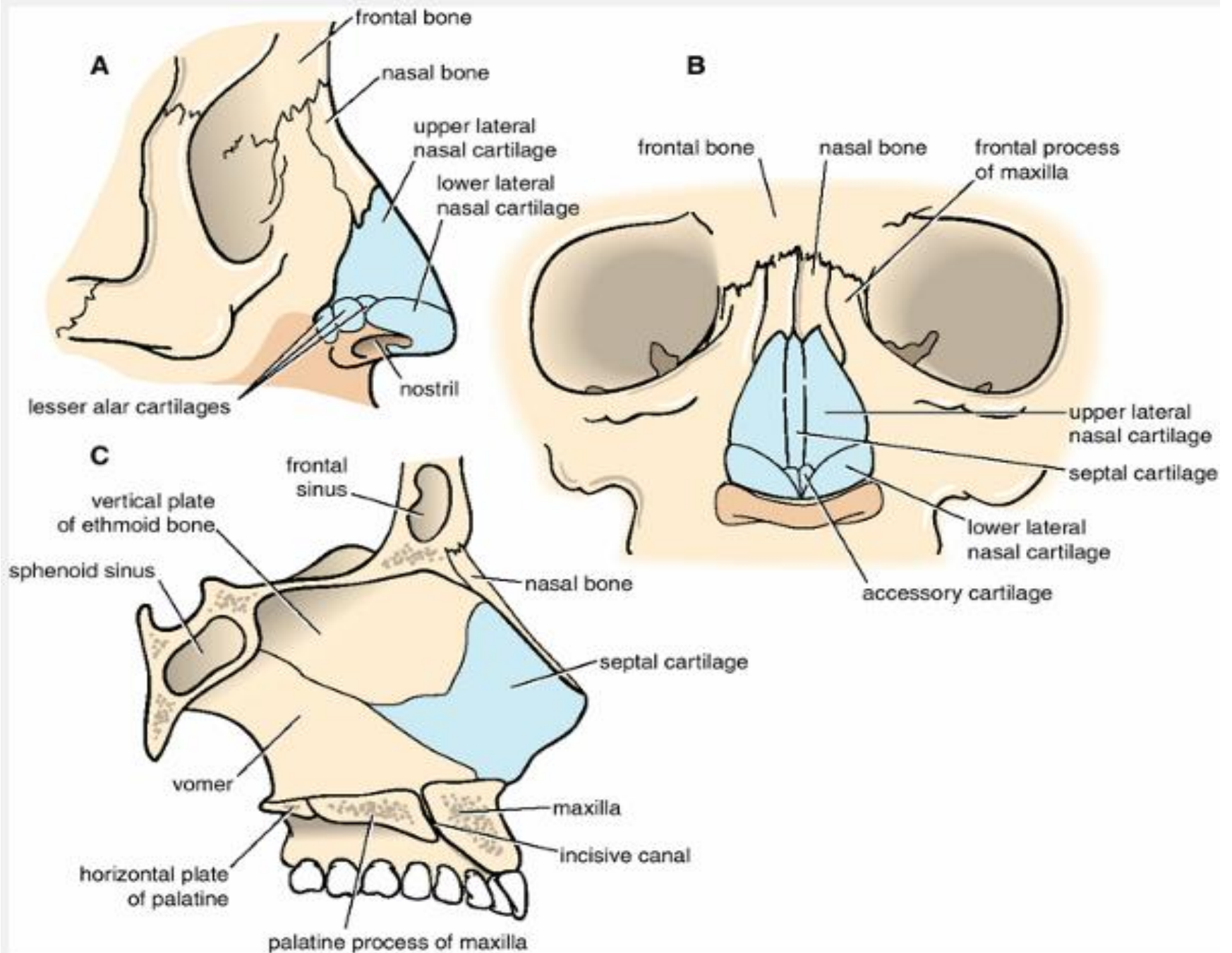


The Nose

- The nose consists of the **external nose** and the **nasal cavity**, both of which are divided by a septum into right and left halves.
- **External Nose**
- The external nose has two orifices called the nostrils, which are separated from each other by the nasal septum.
- The framework of the external nose is made up above by the **nasal bones**, the **frontal processes of the maxillae**, and the **nasal part of the frontal bone**. Below, the framework is formed of **plates of hyaline cartilage**.



- **Nasal Cavity**

- The nasal cavity extends from the nostrils in front to the posterior nasal apertures or choanae behind, where the nose opens into the nasopharynx. **The nasal vestibule** is the area of the nasal cavity lying just inside the nostril .
- **The nasal cavity** is divided into right and left halves by the nasal septum .
- The septum is made up of the septal **cartilage**, the vertical plate of the **ethmoid**, and the **vomer**.

- **Walls of the Nasal Cavity**

- Each half of the nasal cavity has a floor, a roof, a lateral wall, and a medial or septal wall.

- **Floor**

- The palatine process of the maxilla and the horizontal plate of the palatine bone.

- **Roof**

- The roof is narrow and is formed anteriorly the **bridge of the nose by the nasal and frontal bones**, in the middle by the **cribriform plate of the ethmoid**, located beneath the anterior cranial fossa, and posteriorly by the downward sloping **body of the sphenoid**.

- **Lateral Wall**

- The lateral wall has three projections of bone called the superior, middle, and inferior nasal conchae . The space below each concha is called a meatus

- **Sphenoethmoidal Recess**

- The sphenoethmoidal recess is a small area above the superior concha. It receives the opening of the sphenoid air sinus .

- **Superior Meatus**

- The superior meatus lies below the superior concha .
- It receives the openings of the **posterior ethmoid sinuses**.

- **Middle Meatus**

- The middle meatus lies below the middle concha.
- which is continuous with the frontal sinus.
- The maxillary sinus opens into the middle meatus through the hiatus semilunaris.

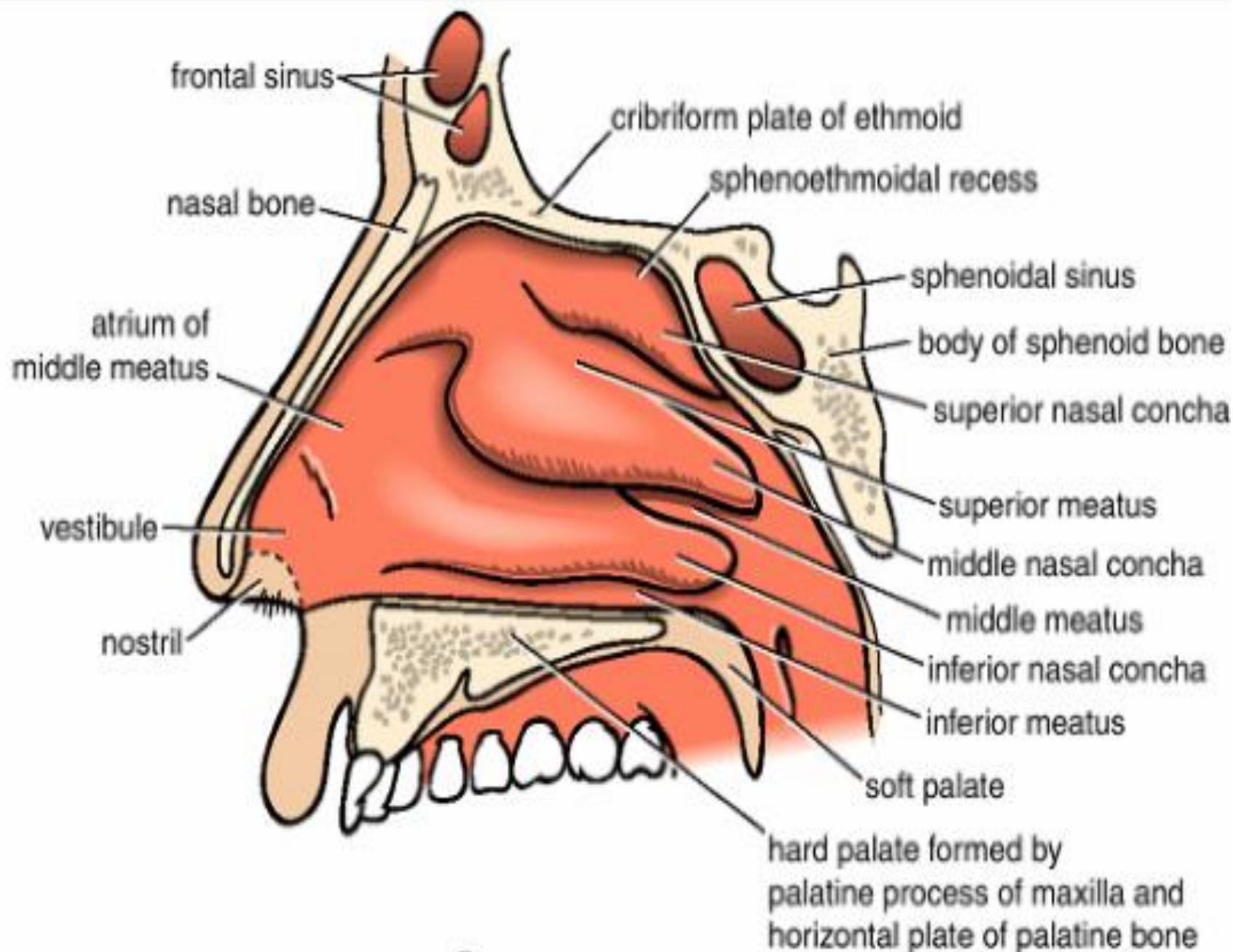
- **Inferior Meatus**

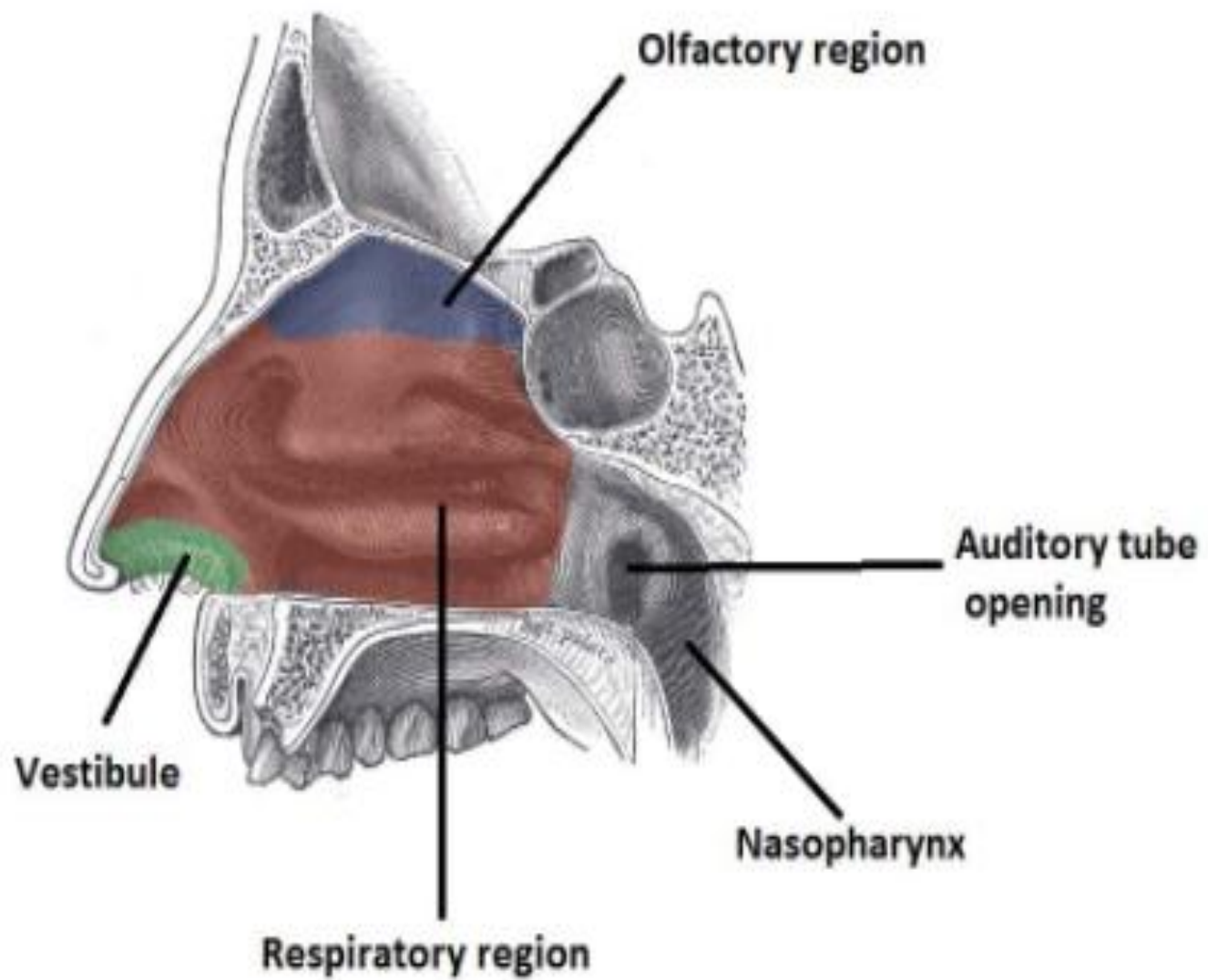
- The inferior meatus lies below the inferior concha and receives the opening of the lower end of the nasolacrimal duct.

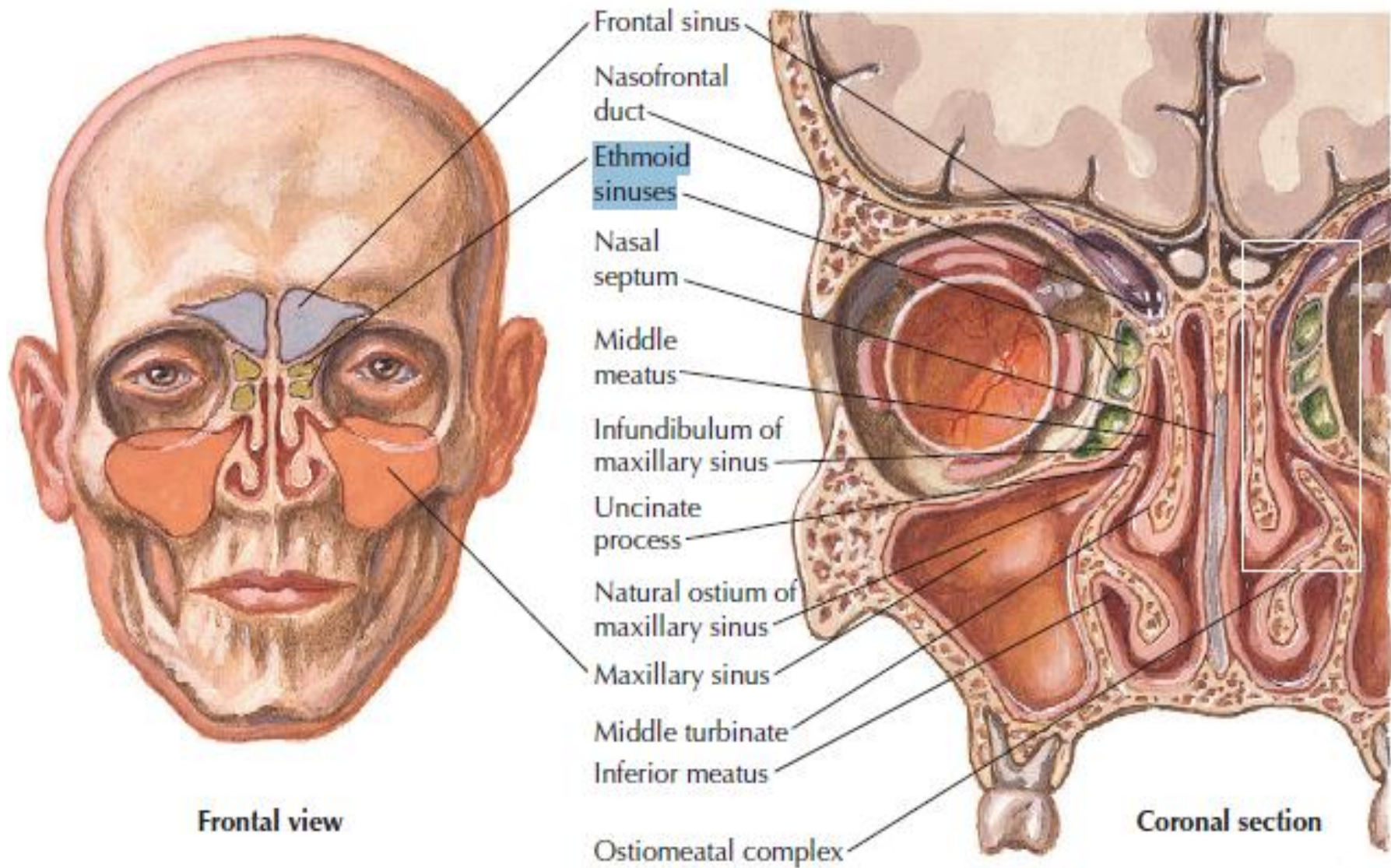
- **Medial Wall**

- The medial wall is formed by the nasal septum. The upper part is formed by the vertical plate of the ethmoid and the vomer. The anterior part is formed by the septal cartilage. The septum rarely lies in the midline, thus increasing the size of one half of the nasal cavity and decreasing the size of the other.

A







F. Netter M.D.

Openings into the Nasal Cavity

- The **paranasal sinuses** drain into the nasal cavity. The frontal, maxillary and anterior ethmoidal sinuses open into the **middle meatus**. The location of this opening is marked by the **semilunar hiatus**, a crescent-shaped groove on the **lateral** walls of the nasal cavity.
- The **middle ethmoidal sinuses** empty out onto a structure called the **ethmoidal bulla**. This is a bulge in the lateral wall formed by the middle ethmoidal sinus itself.
- The **posterior ethmoidal sinuses** open out at the level of **the superior meatus**.
- The **sphenoidal sinus drains into the sphenoid-ethmoidal recess** superior to the superior concha
- The **nasolacrimal duct** acts to drain tears from the eye – it opens into the inferior meatus.
- The auditory (or eustachian) tube opens into the **nasopharynx** at the level of the inferior meatus.

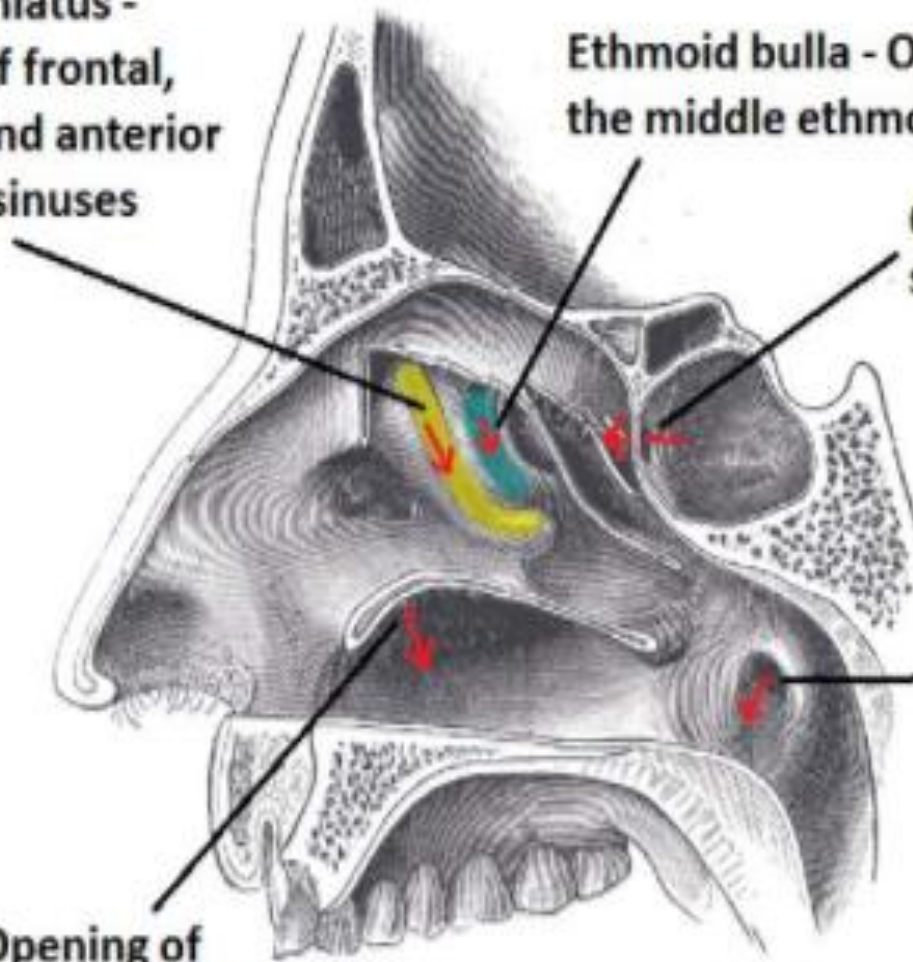
**Semilunar hiatus -
Openings of frontal,
maxillary and anterior
ethmoidal sinuses**

**Ethmoid bulla - Opening of
the middle ethmoid sinus**

**Opening of
sphenoid sinus**

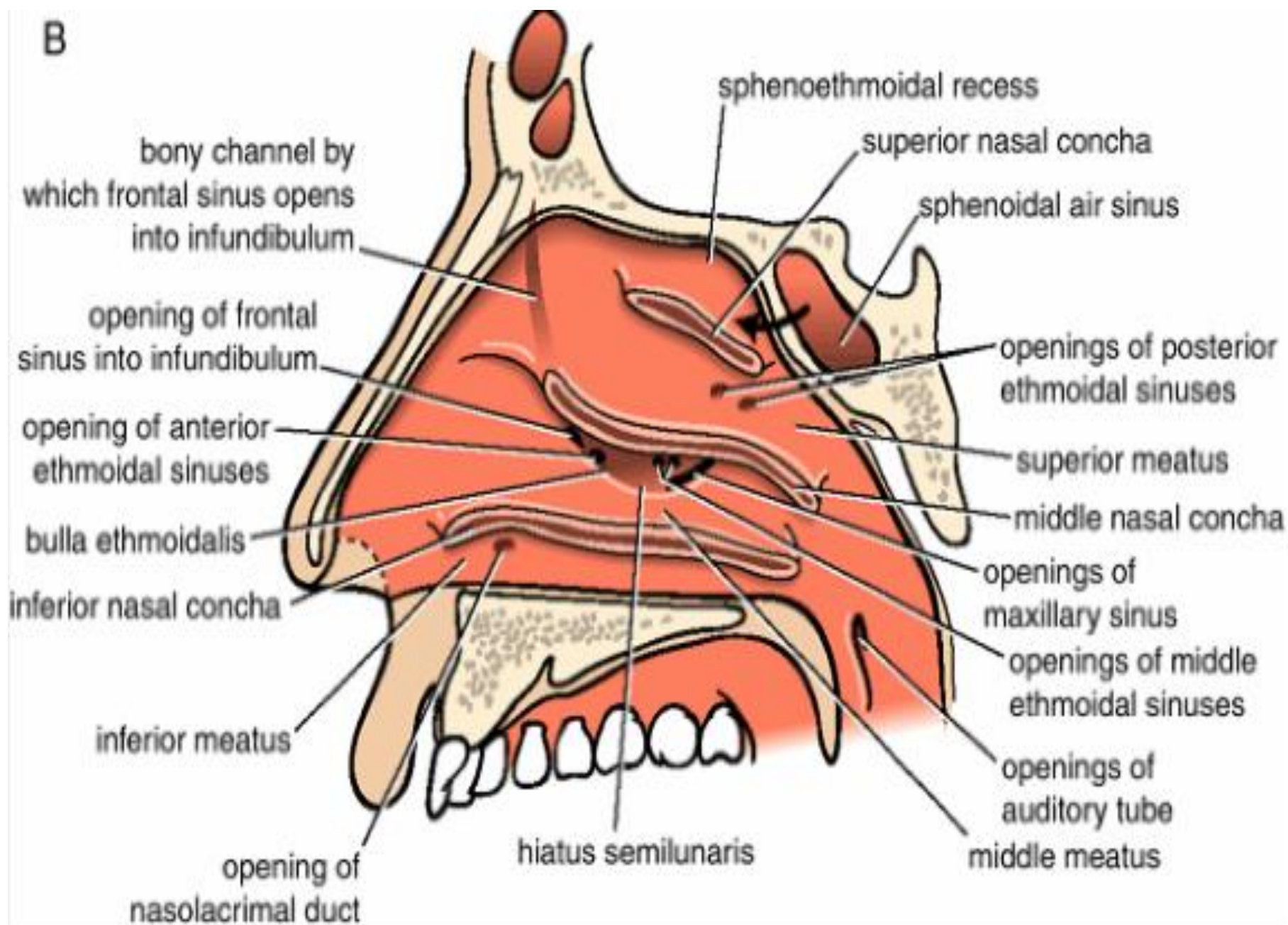
**Opening of
nasolacrimal duct**

**Opening of
eustachian tube**



The conchae have been removed, showing the various openings on the lateral wall of the nasal cavity.

B



THANKS

