

Facial bones

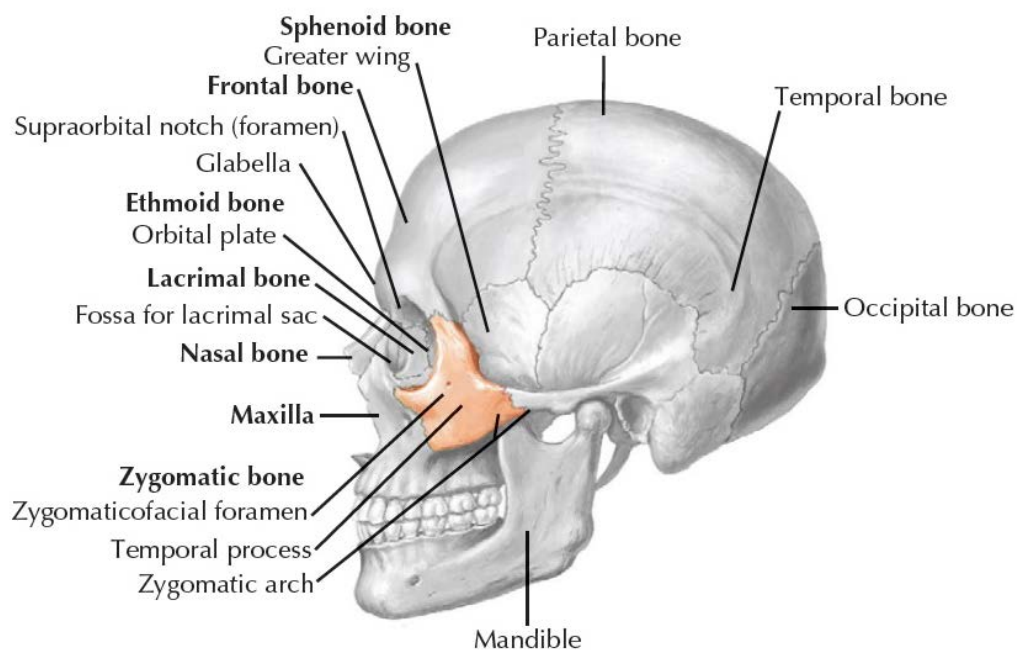
1. ZYGOMATIC BONE (ZYGOMA)

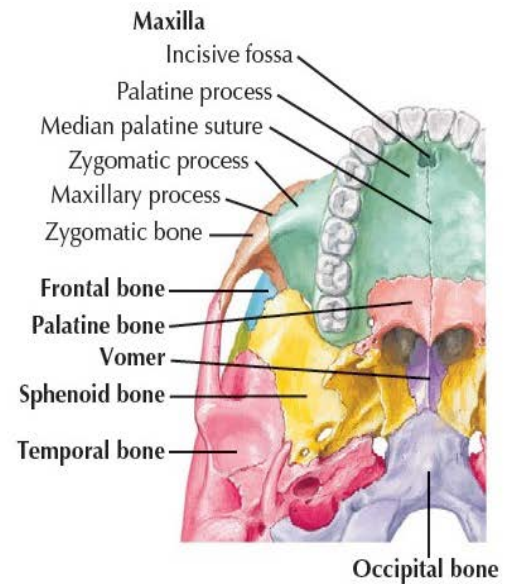
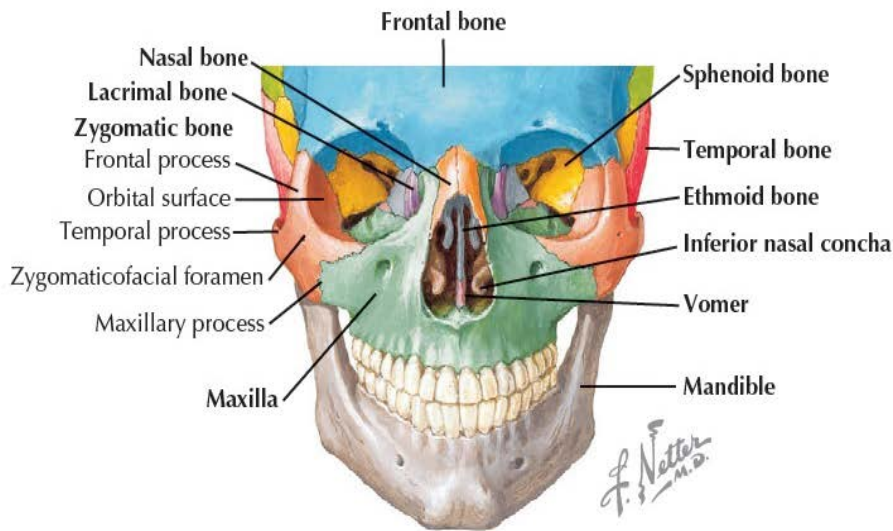
➤ Characteristics

- Forms the majority of the skeleton of the cheek.
- Provides attachment of the masseter muscle.
- Three foramina in the zygoma:
 - ✓ Zygomatico-orbital foramen.
 - ✓ Zygomaticofacial foramen.
 - ✓ Zygomaticotemporal foramen.
- There are 2 zygomatic bones.

➤ Parts:

1. Frontal process
 - Articulates with the frontal bone to help form the orbit.
2. Temporal process
 - Articulates with the zygomatic process of the temporal bone to form the zygomatic arch.
3. Maxillary process
 - Articulates with the zygomatic process of the maxillary bone to help form the orbit.





2. MAXILLARY BONES (MAXILLA)

➤ Characteristics

- Forms the majority of the skeleton of the face and the upper jaw.
- Contains the maxillary paranasal sinus.
- Articulates with the opposite maxilla and the frontal, nasal, vomer, and ethmoid bones; inferior nasal concha; palatine, lacrimal, and zygomatic bones; and the septal and nasal cartilages
- There are 2 maxilla bones (maxillae)

Parts:

1. Body

- Major part of the bone
- Shaped like a pyramid
- Contains the maxillary paranasal sinus
- Infraorbital canal and foramen pass from the orbit region to the face region

2. Frontal process

- Extends superiorly to articulate with the nasal, frontal, ethmoid, and lacrimal bones
- Forms the anterior boundary of the lacrimal fossa

3. Zygomatic process

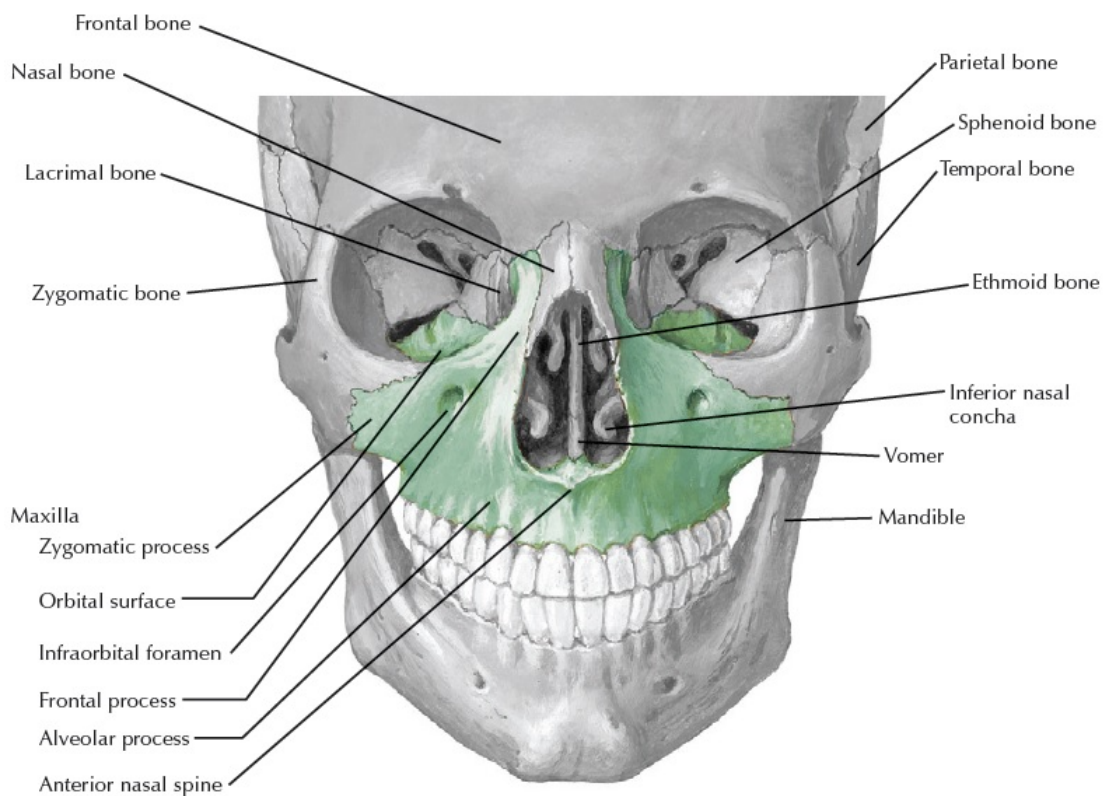
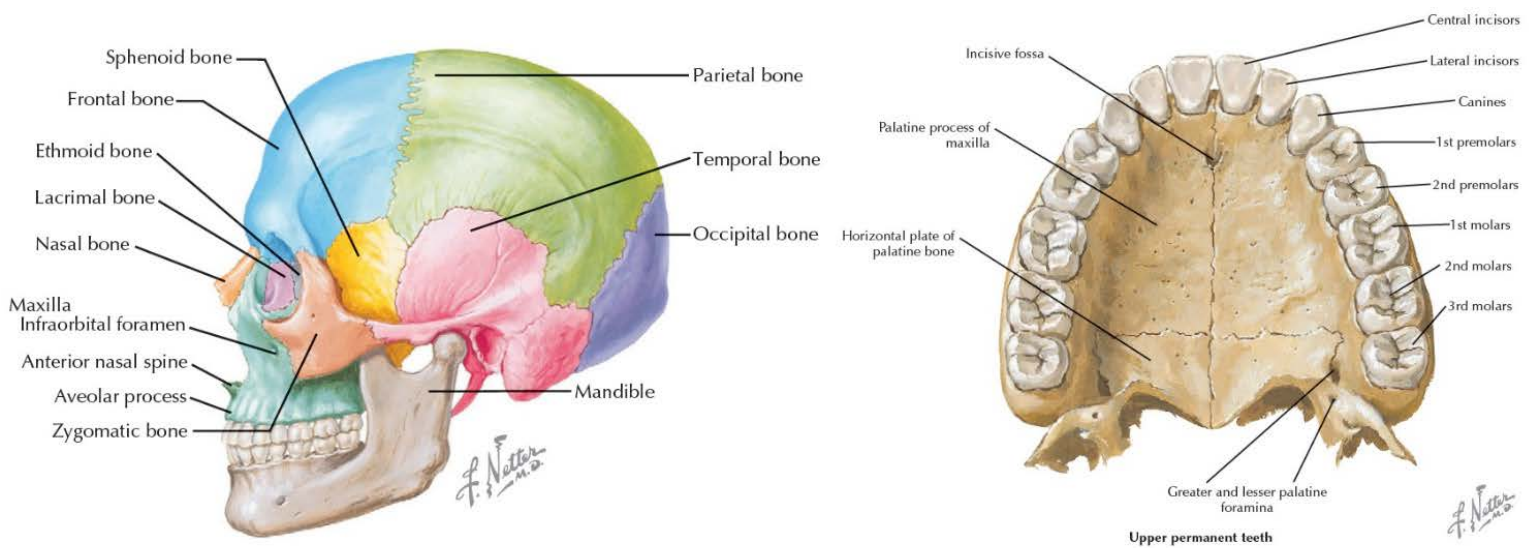
- Extends laterally to articulate with the maxillary process of the zygomatic bone

4. Palatine process

- Extends medially to form the majority of the hard palate
- Articulates with the palatine process of the opposite side and the horizontal plate of the palatine bone
- Incisive foramen is located in the anterior portion

5. Alveolar process

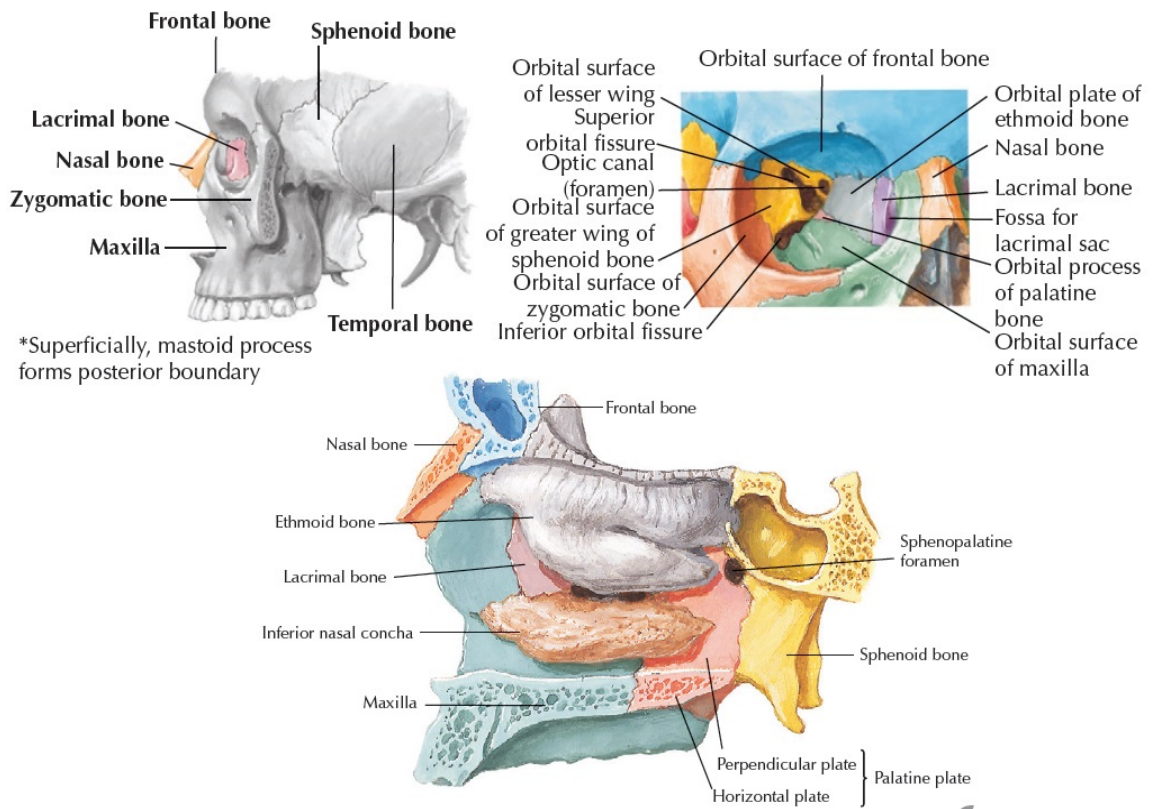
- The part of the maxilla that supports all of the maxillary teeth
- Extends inferiorly from the maxilla
- Each maxilla contains 5 primary and 8 permanent teeth
- Alveolar bone is resorbed when a tooth is lost



3. **NASAL BONE**

➤ **Characteristics**

- Inferior portion forms the superior margin of the nasal aperture.
- Forms the bridge of the nose.
- There are 2 nasal bones.



- Articulates with the nasal bone of the opposite side, the nasal portion of the frontal bone, the frontal process of the maxilla, and the perpendicular plate of the ethmoid.
- Inferior portion of the nasal bones attaches with the lateral nasal cartilages and septal cartilage.

4. LACRIMAL BONE

➤ Characteristics

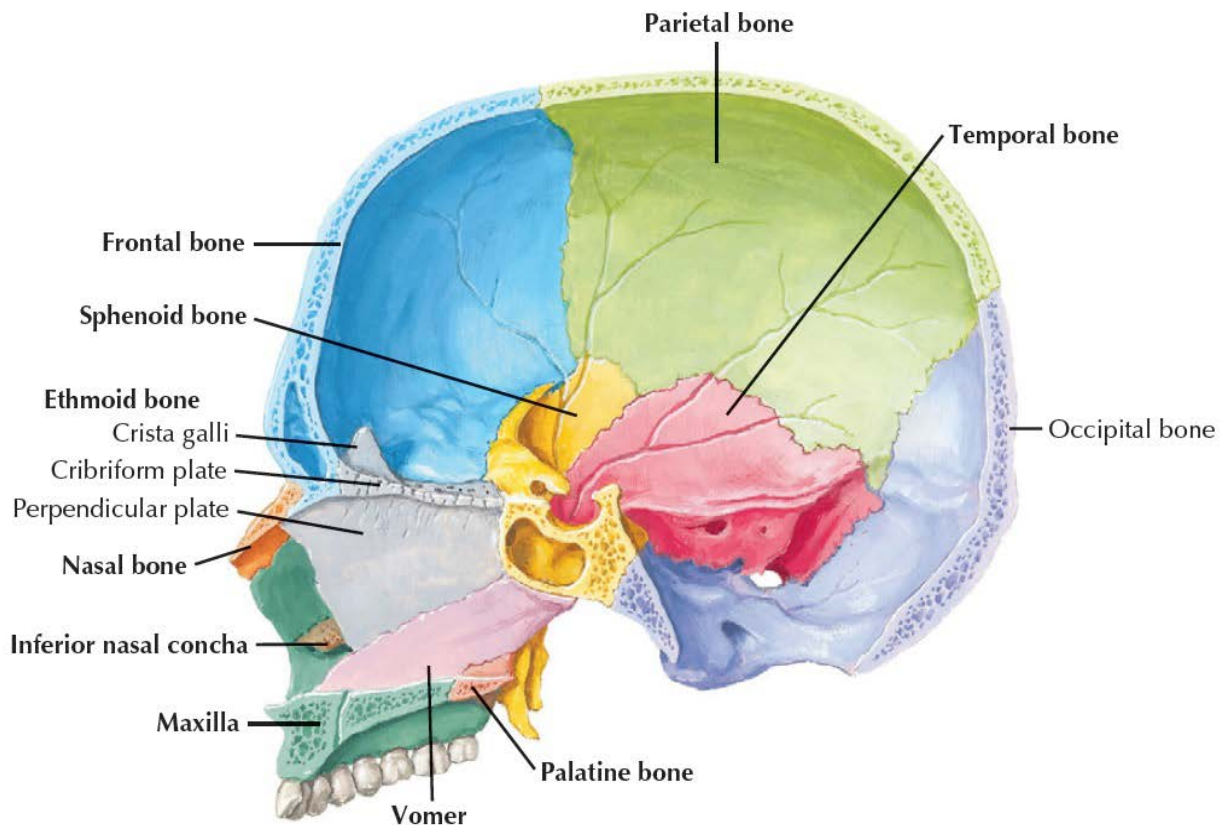
- Lacrimal bone is small and rectangular in shape and very thin and fragile
- There are 2 lacrimal bones
- Forms a small portion of the medial wall of the orbit
- Articulates with the frontal process of the maxilla, orbital plate of the ethmoid bone, the frontal bone, and the inferior nasal concha
- The region that articulates with the frontal process of the maxilla forms the lacrimal fossa, the location of the lacrimal sac
- The inferior part of the lacrimal forms a small portion of the lateral wall of the nasal cavity

5. VOMER

➤ Characteristics

- Shaped like a “plough”
- Forms the posterior inferior part of the nasal septum
- There is 1 vomer bone
- Articulates with the perpendicular plate of the ethmoid, maxilla, palatine, and sphenoid bones and septal cartilage

- Posterior border does not articulate with any other bone



6. PALATINE BONE

➤ Characteristics

- Forms part of the nasal cavity and the hard palate, it is L-shaped
 - There are 2 palatine bones
1. Perpendicular plate
 - Is in the shape of a vertical rectangle.
 - On the superior border is a notch that articulates with the sphenoid bone, forming the sphenopalatine foramen.
 - A small orbital process helps form part of the orbit.
 - Forms part of the wall of the pterygopalatine fossa and the lateral wall of the nasal cavity.
 - Lateral wall articulates with the maxilla to form the palatine canal.
 2. Horizontal plate
 - Forms the posterior portion of the hard palate.
 - Superior to the horizontal plate is the nasal cavity.
 - On the medial part, formed by both of the horizontal plates, is the posterior nasal spine.
 - Greater palatine foramen is on this plate.

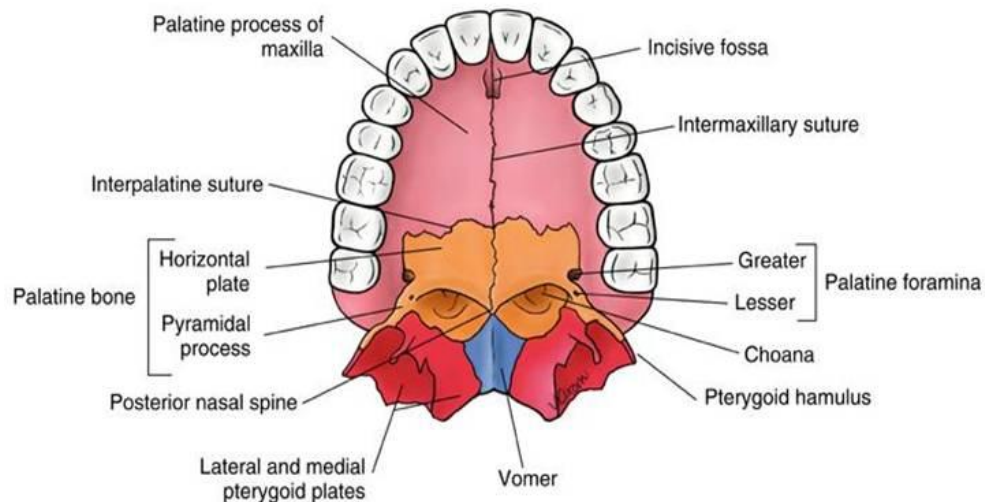
3. Pyramidal process

- Extends posteriorly and inferiorly from the junction of the perpendicular and horizontal plates of the palatine.
- Lesser palatine foramina are located here.

7. INFERIOR NASAL CONCHA

➤ Characteristics

- Is described as a curved bone that forms part of the lateral wall of the nasal cavity.
- There are 2 inferior nasal conchae.
- Lies within a curve in the lateral wall of the nasal cavity.
- Articulates with the maxilla and perpendicular plate of the palatine, lacrimal, and ethmoid bones.



8. MANDIBLE

➤ Characteristics

- Forms the lower jaw
- Described as horse shoe shaped
- All muscles of mastication attach to the mandible
- There is 1 mandible

➤ Part:

1. Body

- Mental foramen lies on the anterior part of the lateral surface of the body
- External oblique line is observed on the lateral side of the mandible
- On the medial side of the body lies the mylohyoid line
- Mylohyoid line helps divide a sublingual from a submandibular fossa
- Posterior border of the mylohyoid line provides for attachment of the pterygomandibular raphe
- At the midline on the medial side are the superior and inferior genial tubercles, as well as the digastric fossa

2. Ramus

- Meets the body of the mandible at the angle of the mandible on each side
- Masseter muscle attaches to the lateral side
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- Medial pterygoid muscle and sphenomandibular ligament attach to the medial side
- Mandibular foramen is located on the medial side of the ramus
- Superior part divides into a coronoid process anteriorly and a condylar process posteriorly, separated by a mandibular notch
- 3. Coronoid process
 - The anterior most superior extension of each ramus
 - Temporalis muscle attaches to the coronoid process
- 4. Condylar process
 - Articulates with the temporal bone in the temporomandibular joint
 - Has a neck that forms a condyle superiorly
 - Lateral pterygoid muscle attaches to pterygoid fovea on the neck
- 5. Alveolar process
 - Extends superiorly from the body
 - Created by a thick buccal and a thin lingual plate of bone
 - The part of the mandible that supports the mandibular teeth
 - Each side of the mandible contains 5 primary and 8 permanent teeth
 - Alveolar bone is resorbed when a tooth is lost

