

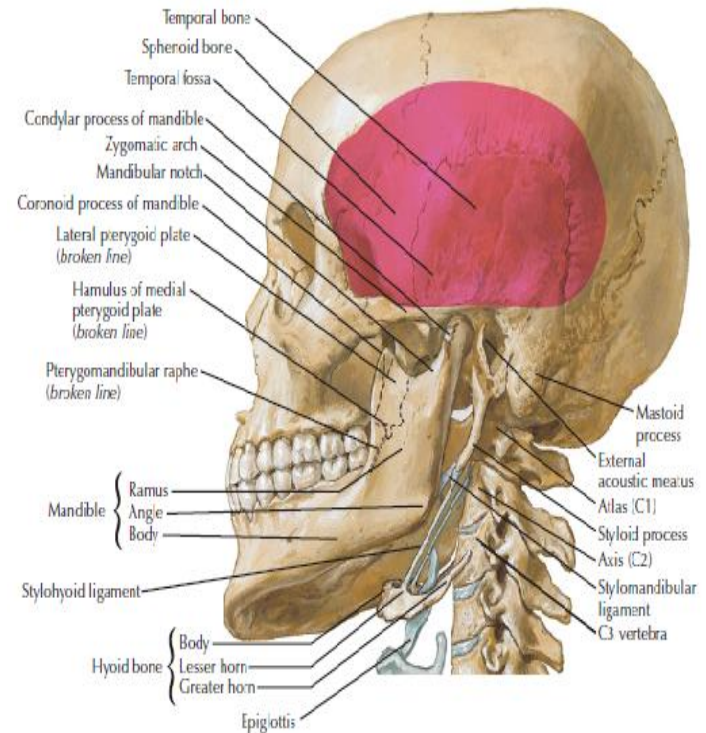
TEMPORAL & INFRATEMPORAL FOSSA

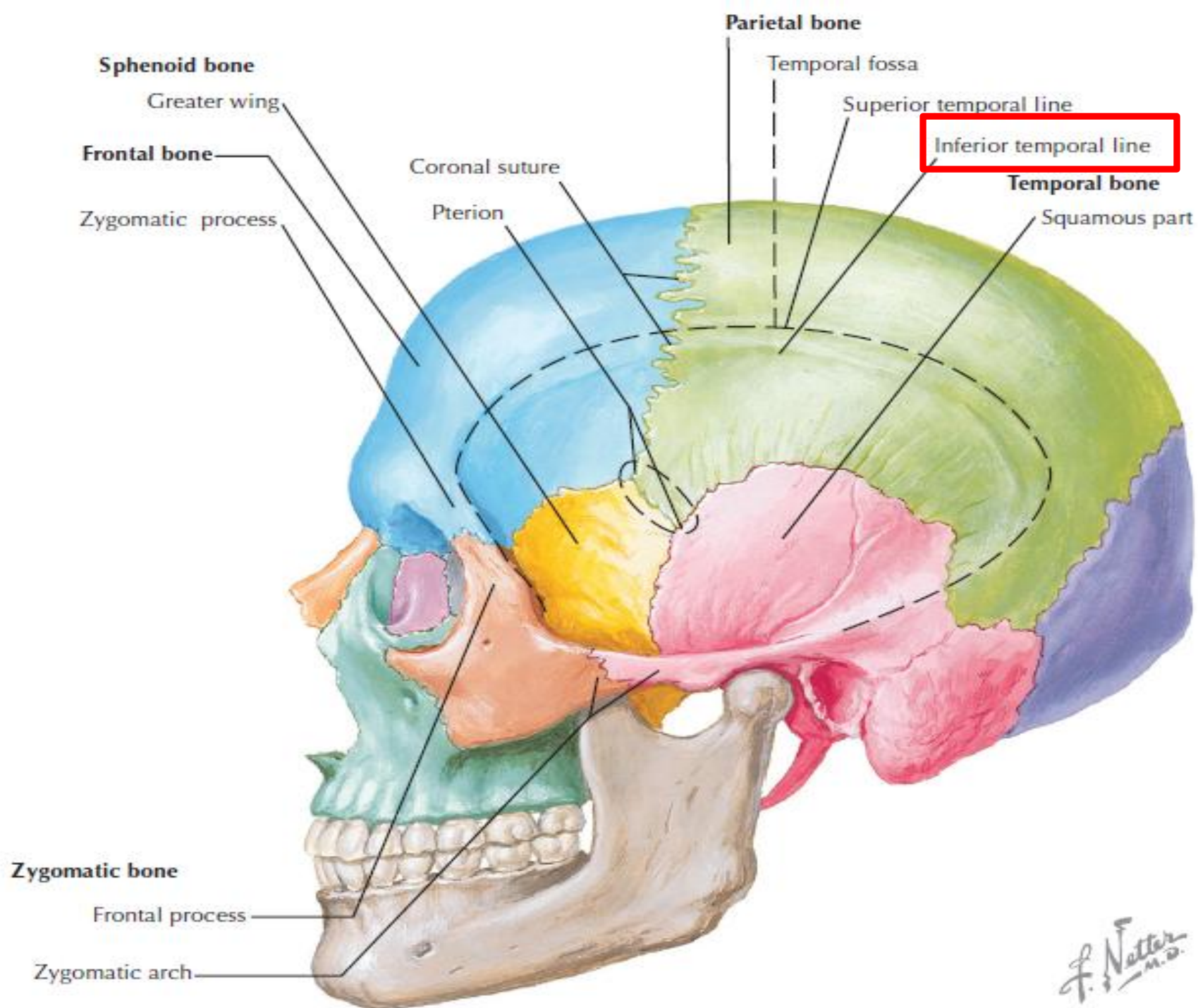
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MSc. Human Anatomy

Temporal Fossa

is a depression in the temporal region lies below the inferior temporal line and it regards one of the largest landmarks on the skull.





Borders of the Temporal Fossa

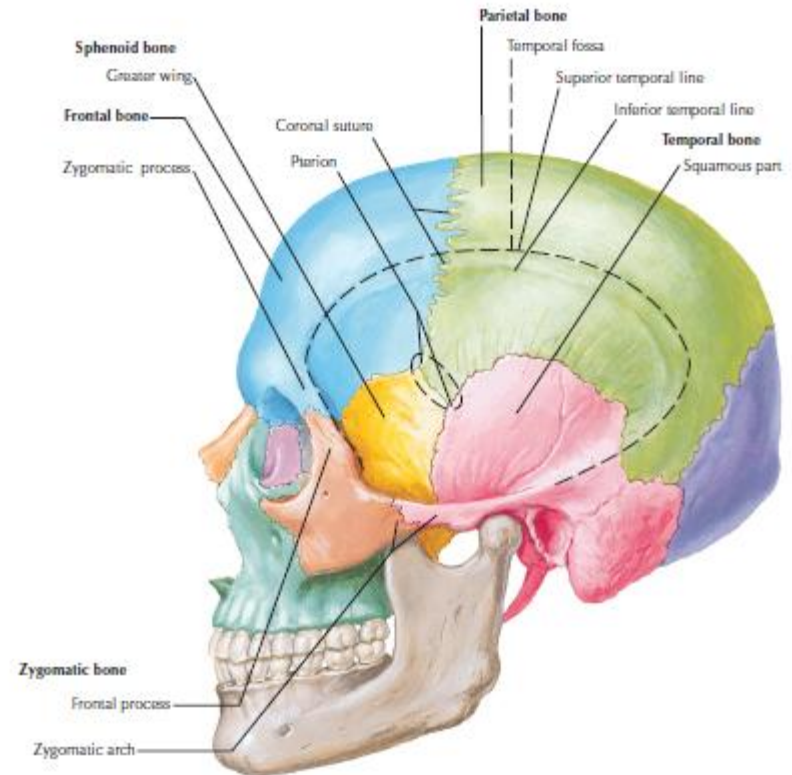
Superiorly: superior temporal line

Inferiorly: infra temporal crest
medially & zygomatic arch
Laterally

Anteriorly: frontal process of
zygomatic bone & the
zygomatic process of the
frontal bone

Floor: formed by 4 bones: frontal,
parietal,
temporal, and sphenoid
forming *pterion*

Laterally; it is limited by the
temporalis fascia.

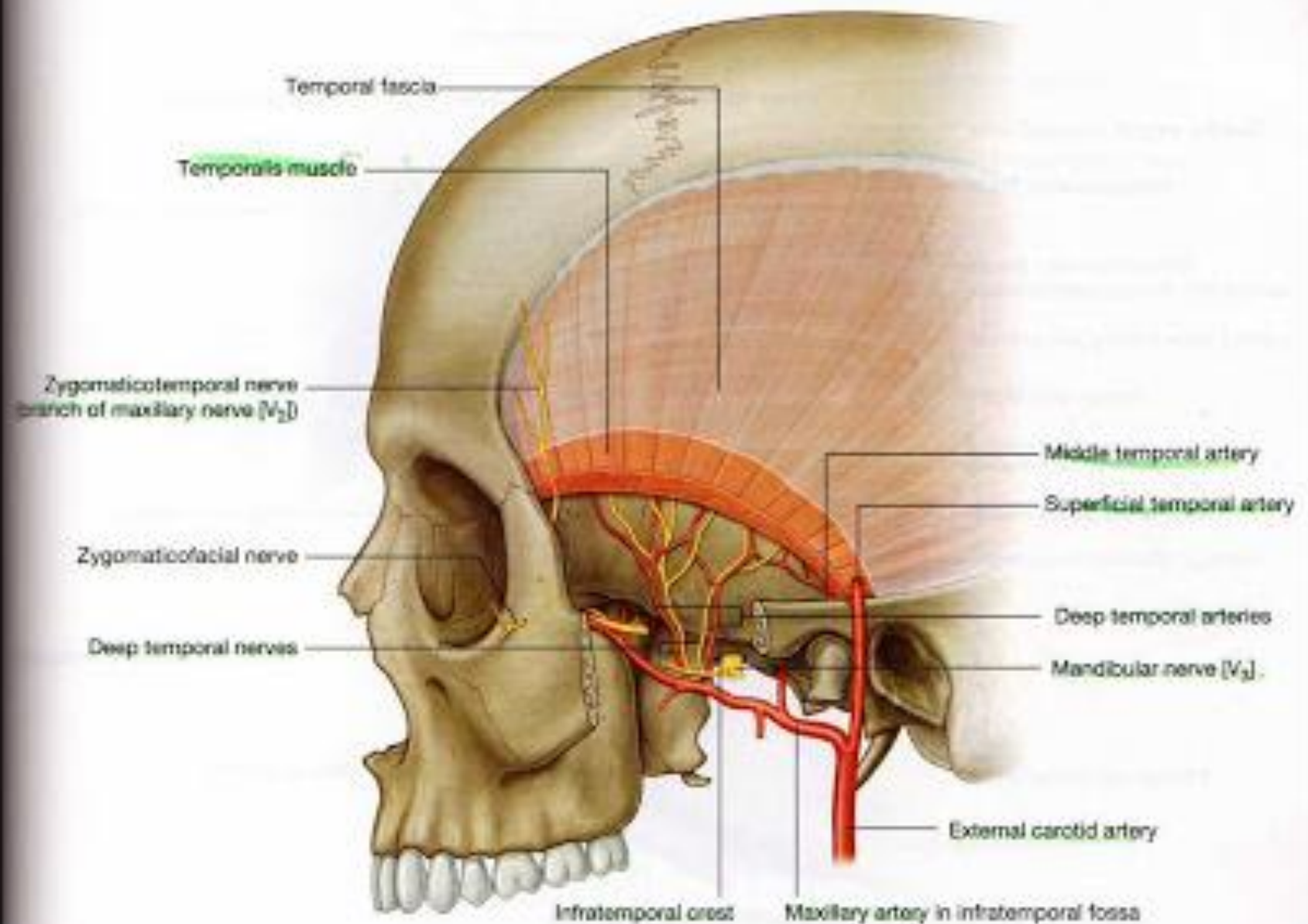


- **Applied Aspect:** Pterion (weakest region of skull) is an important site for burr hole operation to ligate the middle meningeal artery.

Contents of Temporal Fossa

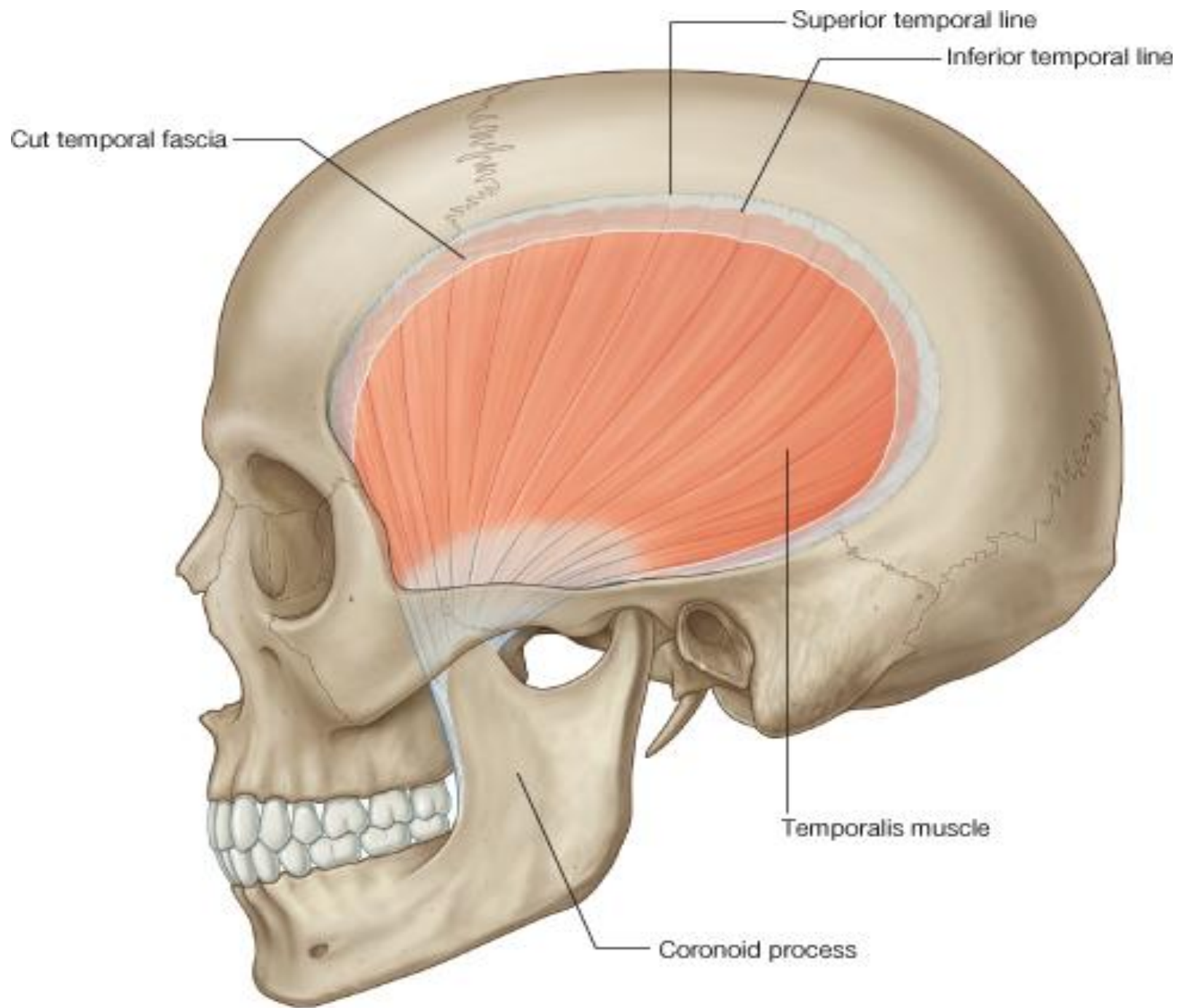
Contents:

1. **Temporalis muscle & fascia**
2. **Deep temporal nerves and vessels.** mandibular nerve [V3]
3. **Zycomaticotemporal nerve.** maxillary nerve [V₂],
4. **Auriculotemporal nerve.** mandibular nerve [V3]
5. **Superficial temporal vessels.**



Temporalis Muscle

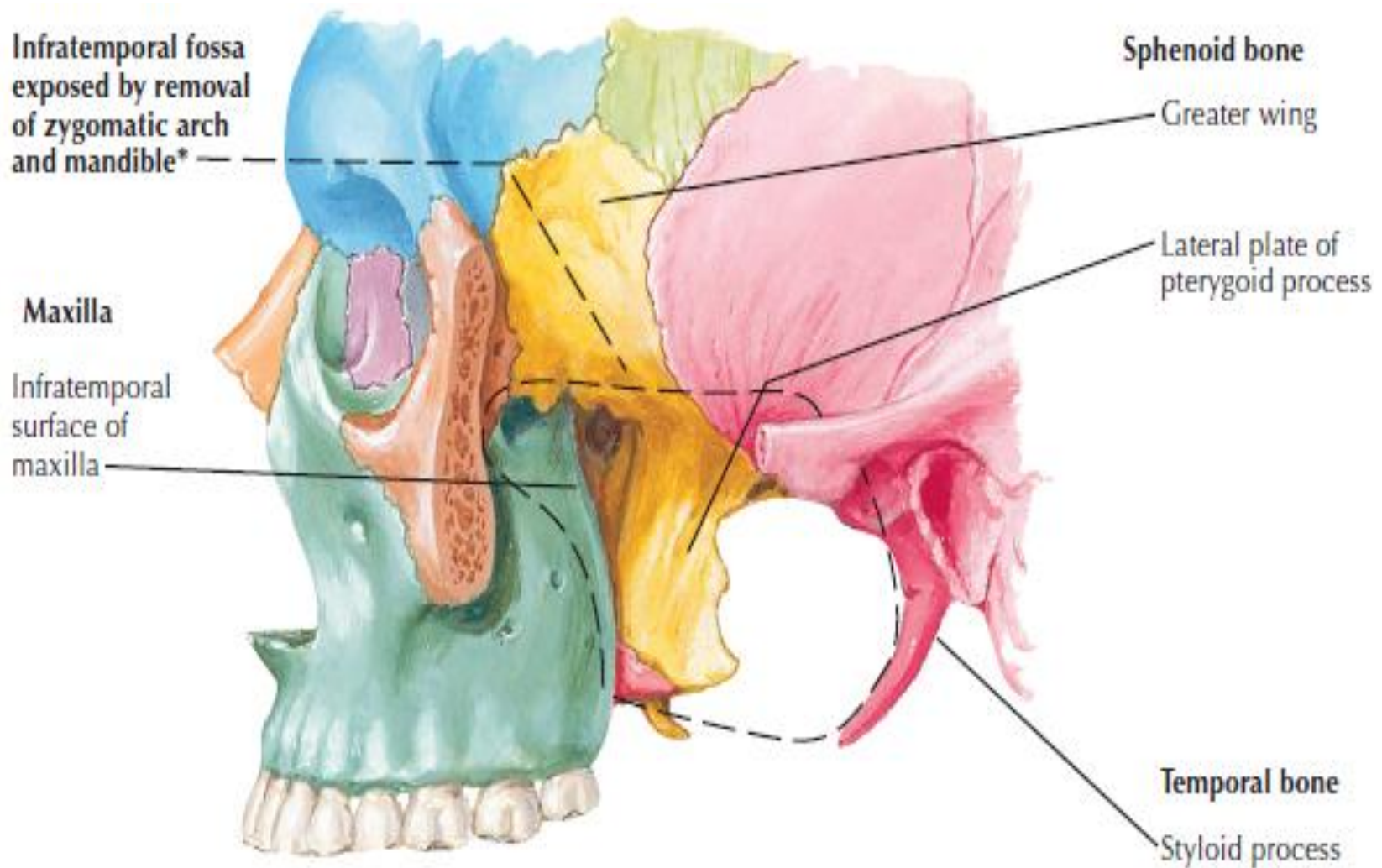
- Is a large fan-shaped muscle.
- Origin : *superiorly*; the inferior temporal line and *laterally* temporal fascia.
- Insertion : the coronoid process, ramus of the mandible, almost to the last molar tooth.
- *Action* Elevation, retraction (pull) & side to side movement of mandible.
- *Nerve supply* Deep temporal branch of mandibular nerve.



Infratemporal Fossa

- ✓ A wedge-shaped fossa
- ✓ **Lies *inferior* to the temporal fossa**
- ✓ *Deep and inferior* to the Zygomatic arch
- ✓ Between the ramus of the mandible laterally and the wall of the pharynx medially
- ✓ Opens to the neck posteroinferiorly.





*Superficially, mastoid process forms posterior boundary

F. Netter M.D.

Infratemporal Fossa

The Boundaries:

Laterally: the ramus of the mandible.

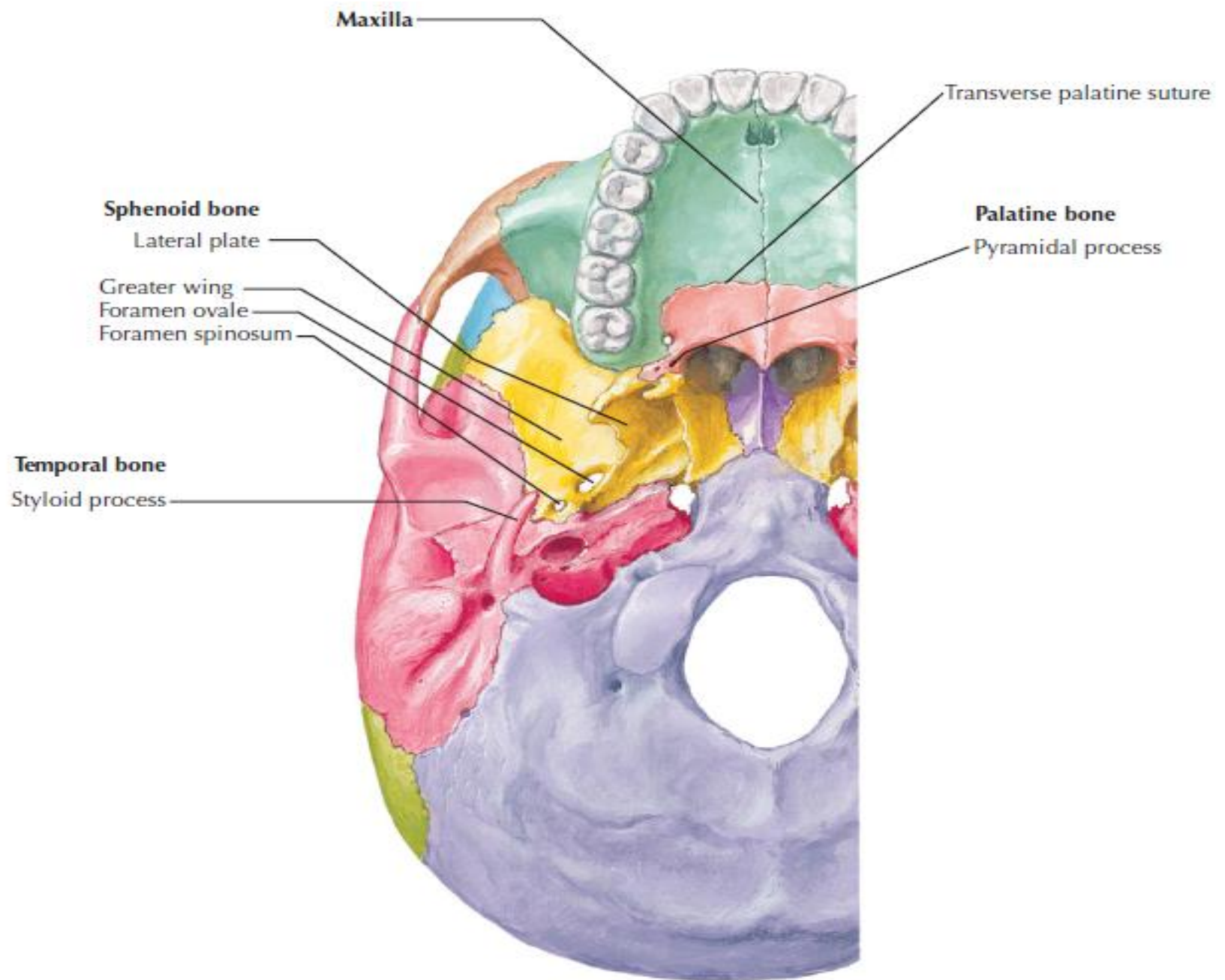
Medially: the lateral pterygoid plate.

Anteriorly: the posterior aspect of the maxilla.

Posteriorly: tympanic plate, mastoid & styloid processes of the temporal bone.

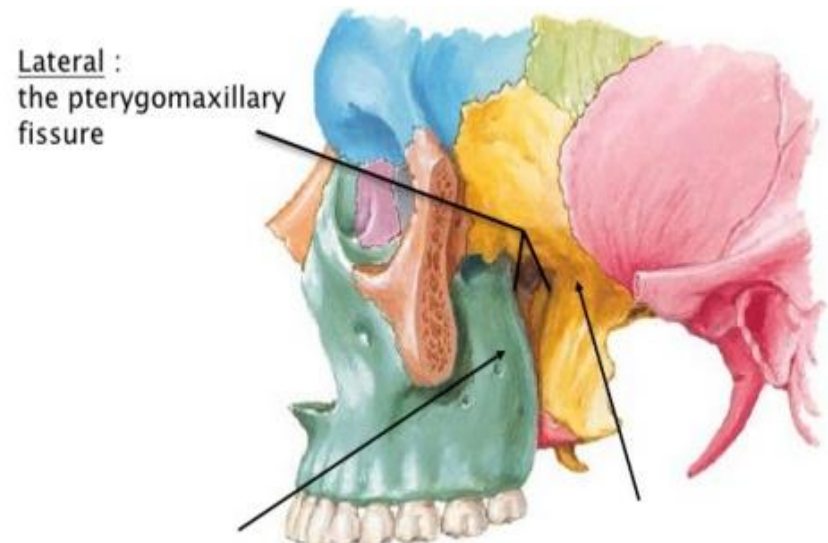
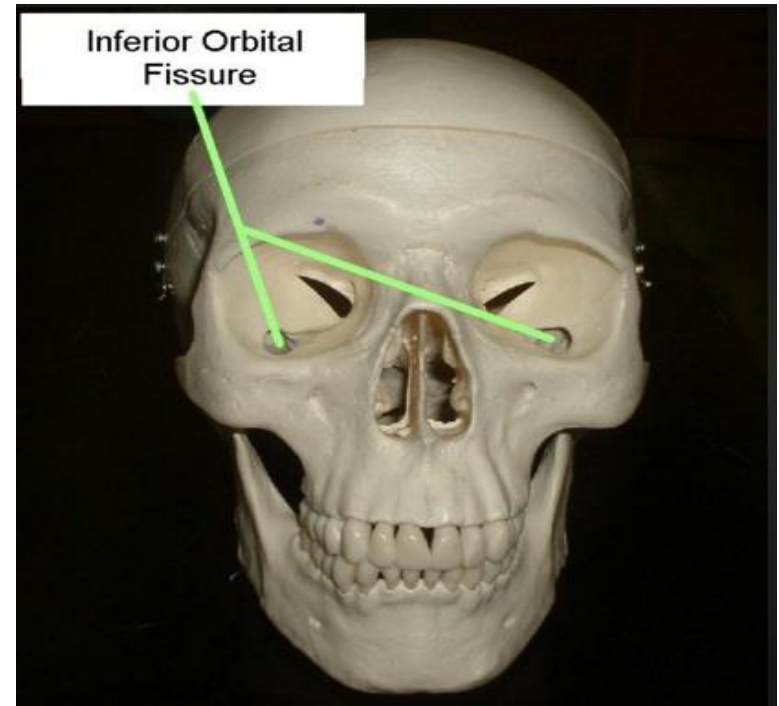
Superiorly: the inferior (infratemporal) surface of the greater wing of the sphenoid.

Inferiorly: where the medial pterygoid muscle attaches to the mandible near its angle.



Communications:

- 1\ ***With the temporal fossa*** as the temporalis muscle descends from its origin in the temporal fossa to be inserted onto the coronoid process of the mandible.
- 2\ ***With the middle cranial fossa*** through the foramen ovale & the foramen spinosum.
- 3\ ***With the orbit*** at its most superoanterior aspect via the inferior orbital fissure.
- 4\ ***With the pterygopalatine fossa***, medially through pterygomaxillary fissure



Contents

- ***Muscles of mastication***

- • Lower part of Temporalis
- • Lateral pterygoid
- • Medial pterygoid

- ***ARTERIES***

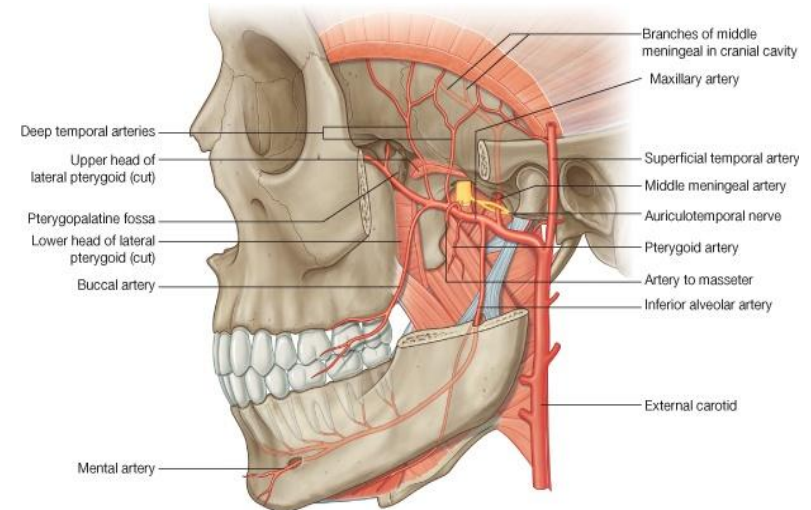
- • Maxillary and its branches

- ***VEINS***

- • Pterygoid plexus of veins and tributaries

- ***NERVES***

- • Mandibular division of the trigeminal and branches
- • Posterior superior alveolar
- • Chorda tympani branch of the facial
- • Otic ganglion
- • Lesser petrosal





THANKS