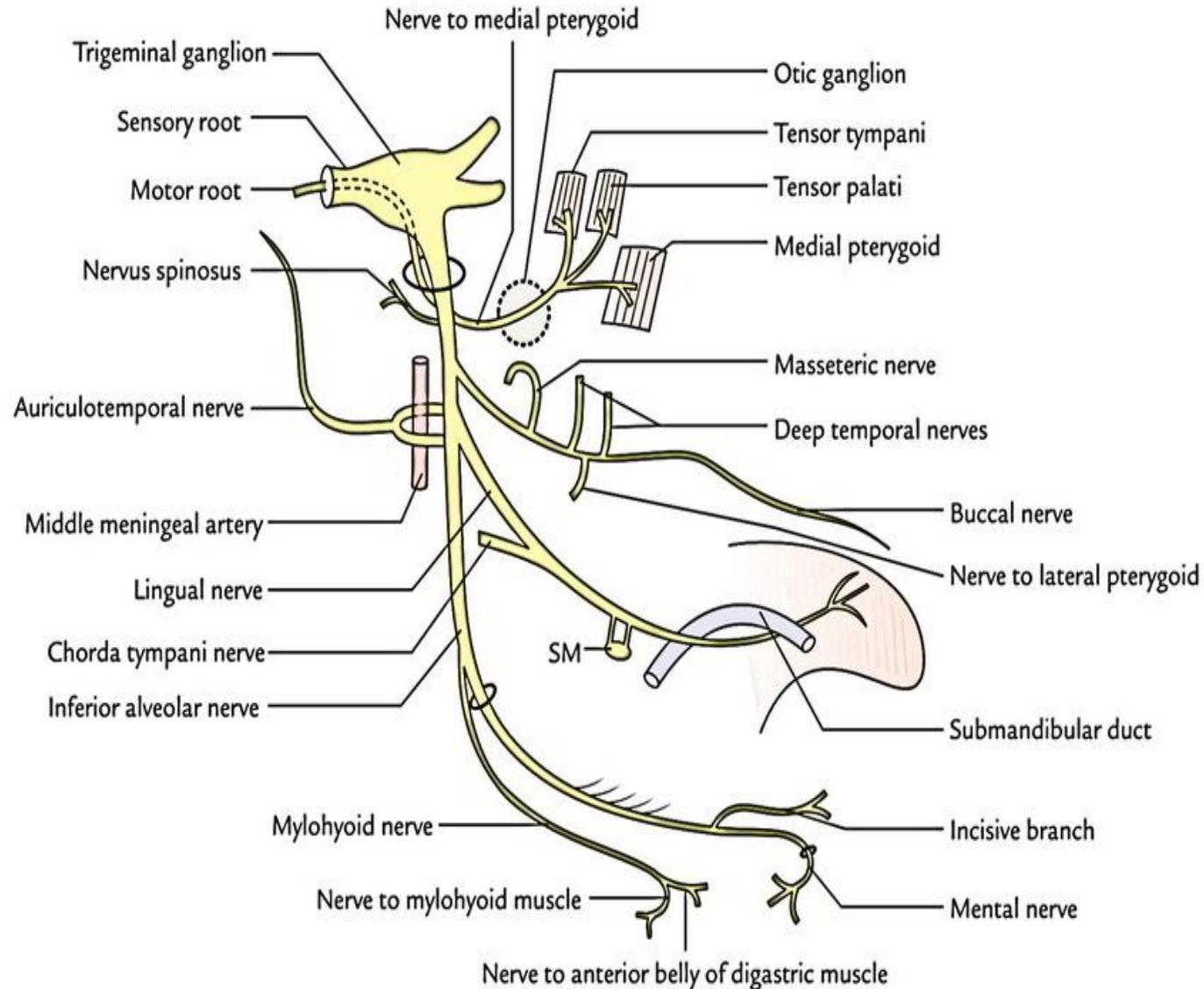


## Practical: week 5

Contents of infratemporal fossa  
pterygopalatine fossa  
Temporomandibular joint (TMJ)

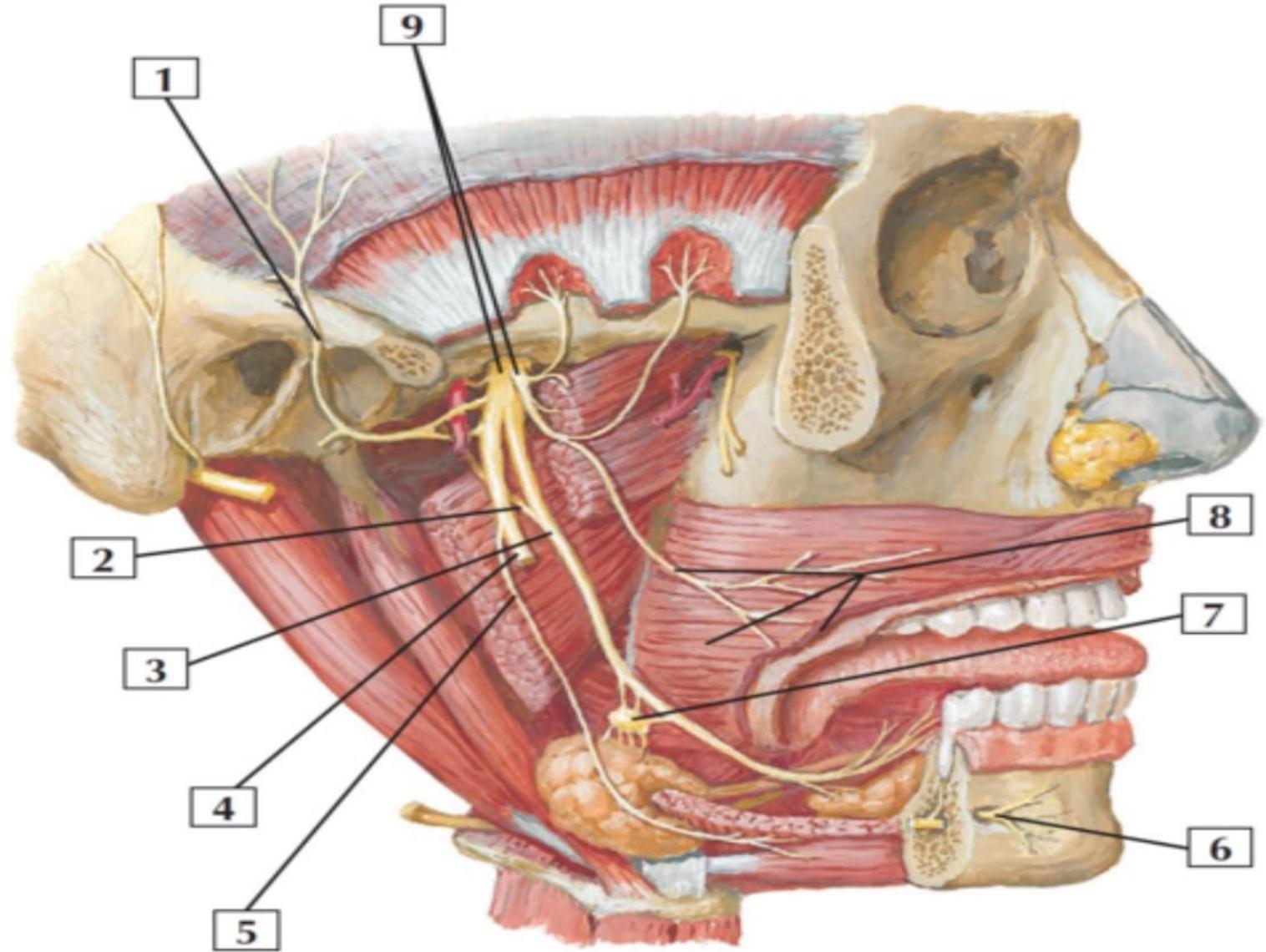
**Dr / Rasha Abdelaziz Abd Ellatif**  
**Associate. Prof. of Human Anatomy and Embryology**

# Branches of mandibular nerve

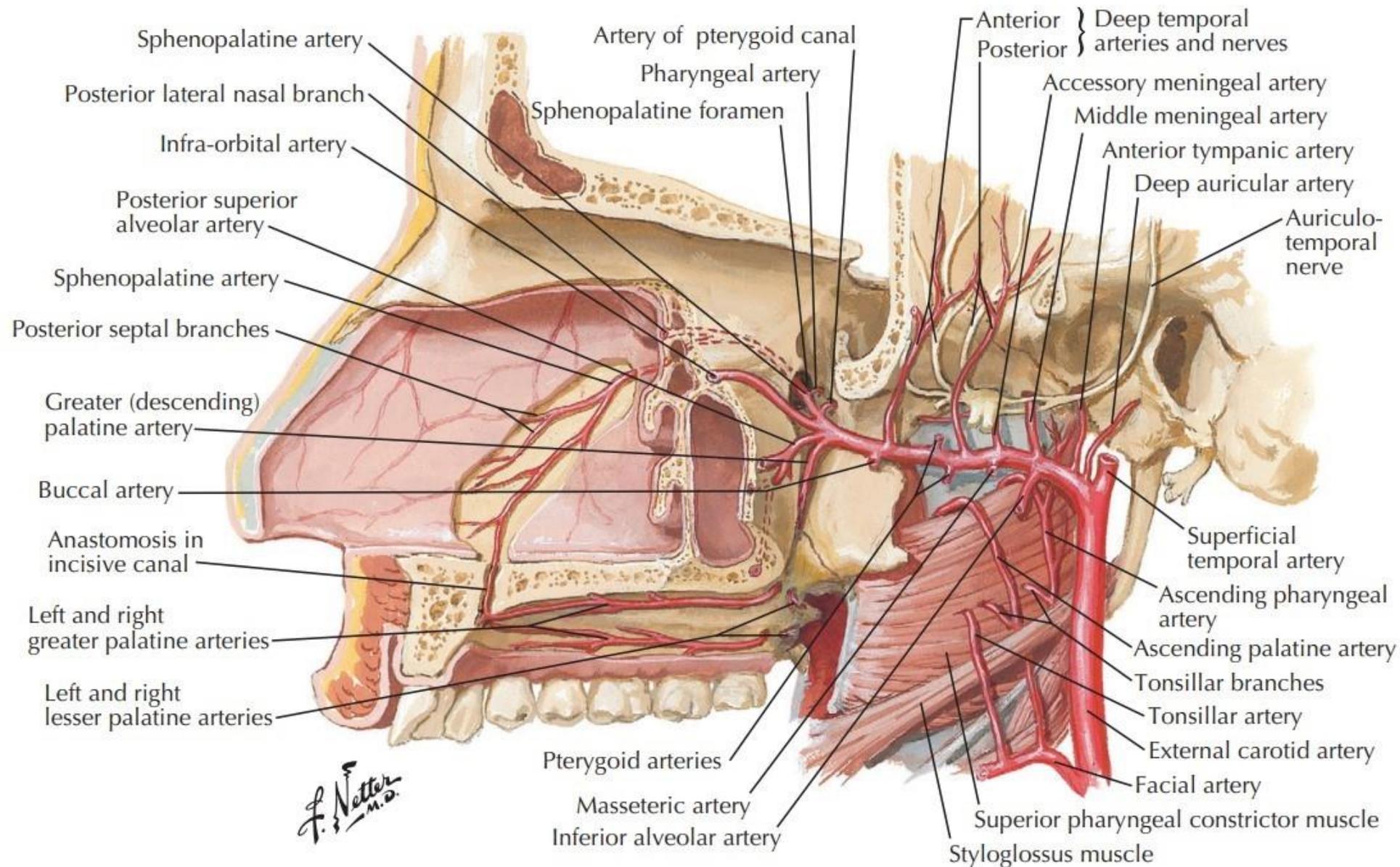


# Lets revise branches of mandibular nerve

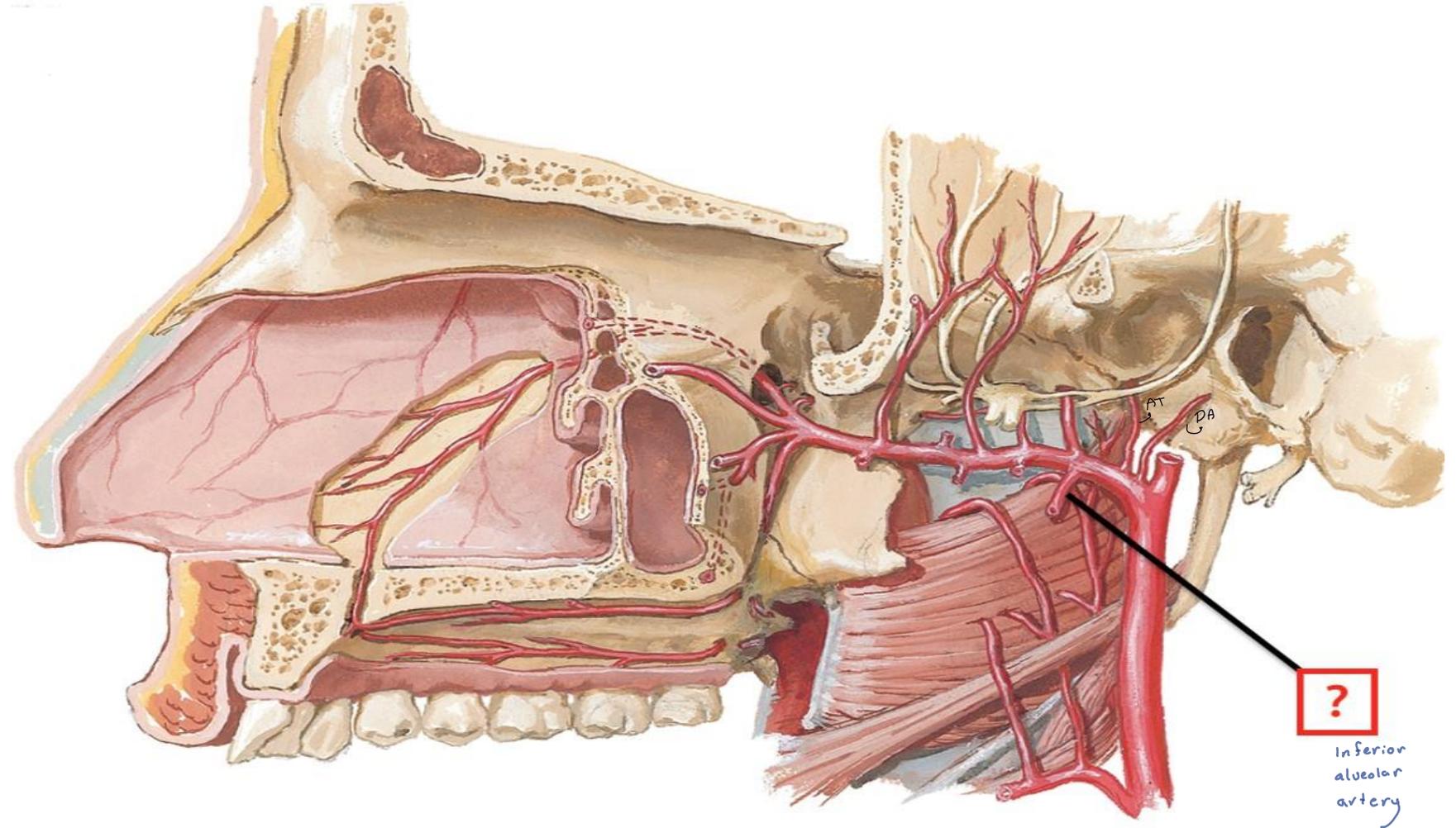
- 1) Auriculotemporal nerve
- 2) Chorda tympani nerve
- 3) Lingual nerve
- 4) Inferior alveolar nerve
- 5) Mylohyoid nerve
- 6) Mental nerve
- 7) Submandibular ganglion
- 8) Buccal nerve
- 9) Anterior division of mandibular nerve



# Branches of maxillary artery



# Lets revise branches of maxillary artery



?

Inferior alveolar artery

F. Netter M.D.

# Pterygopalatine fossa

- superior - greater wing of sphenoid bone
- inferior - perpendicular plate of palatine
- anterior - posterior of maxilla
- posterior - pterygoid process of sphenoid bone
- medial - lateral surface of palatine bone
- lateral - pterygomaxillary fissure

Identify:

✓ Boundaries

✓ Gate ways <sup>بوابات</sup>

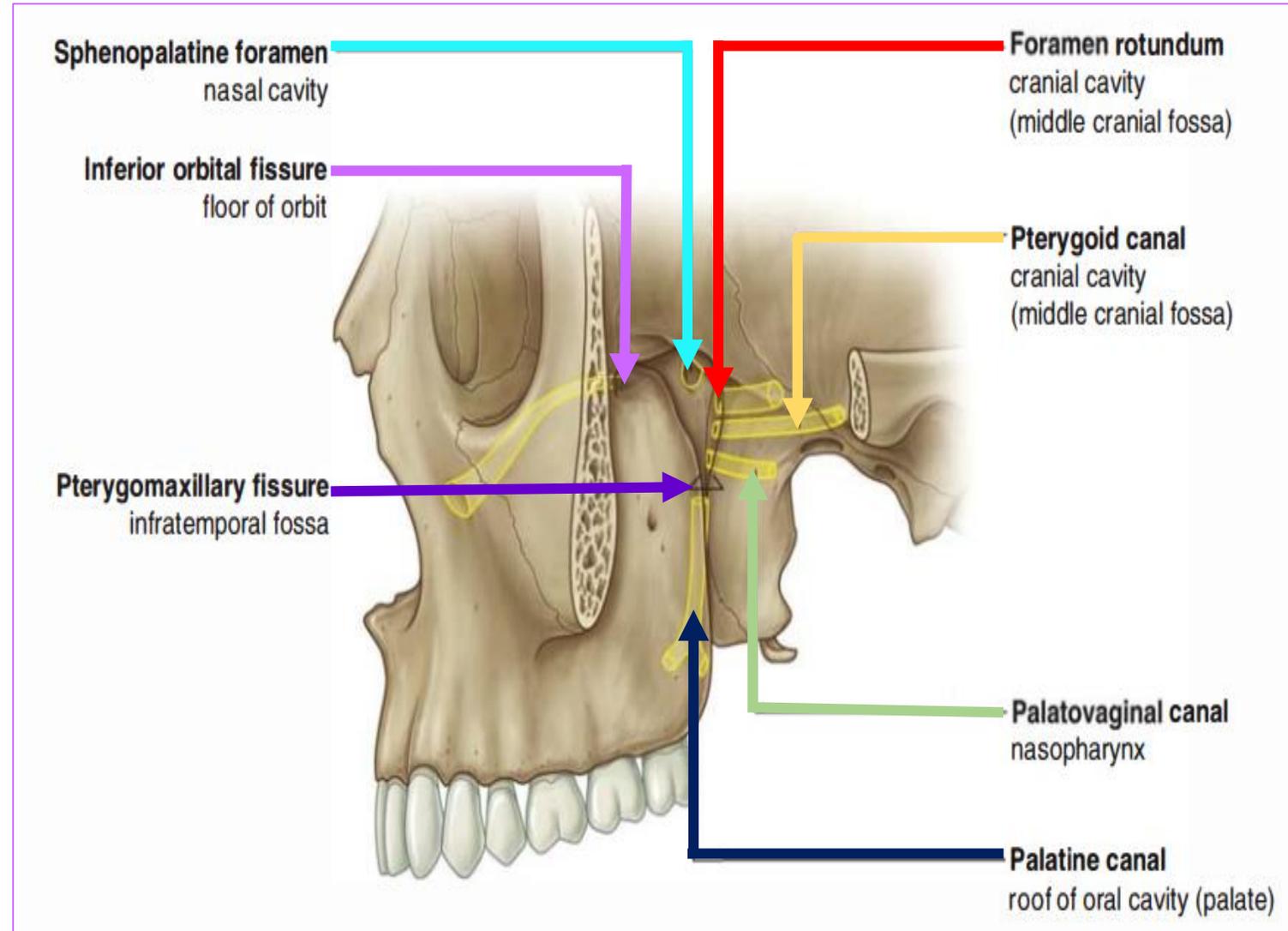
(Communications)

✓ Contents of

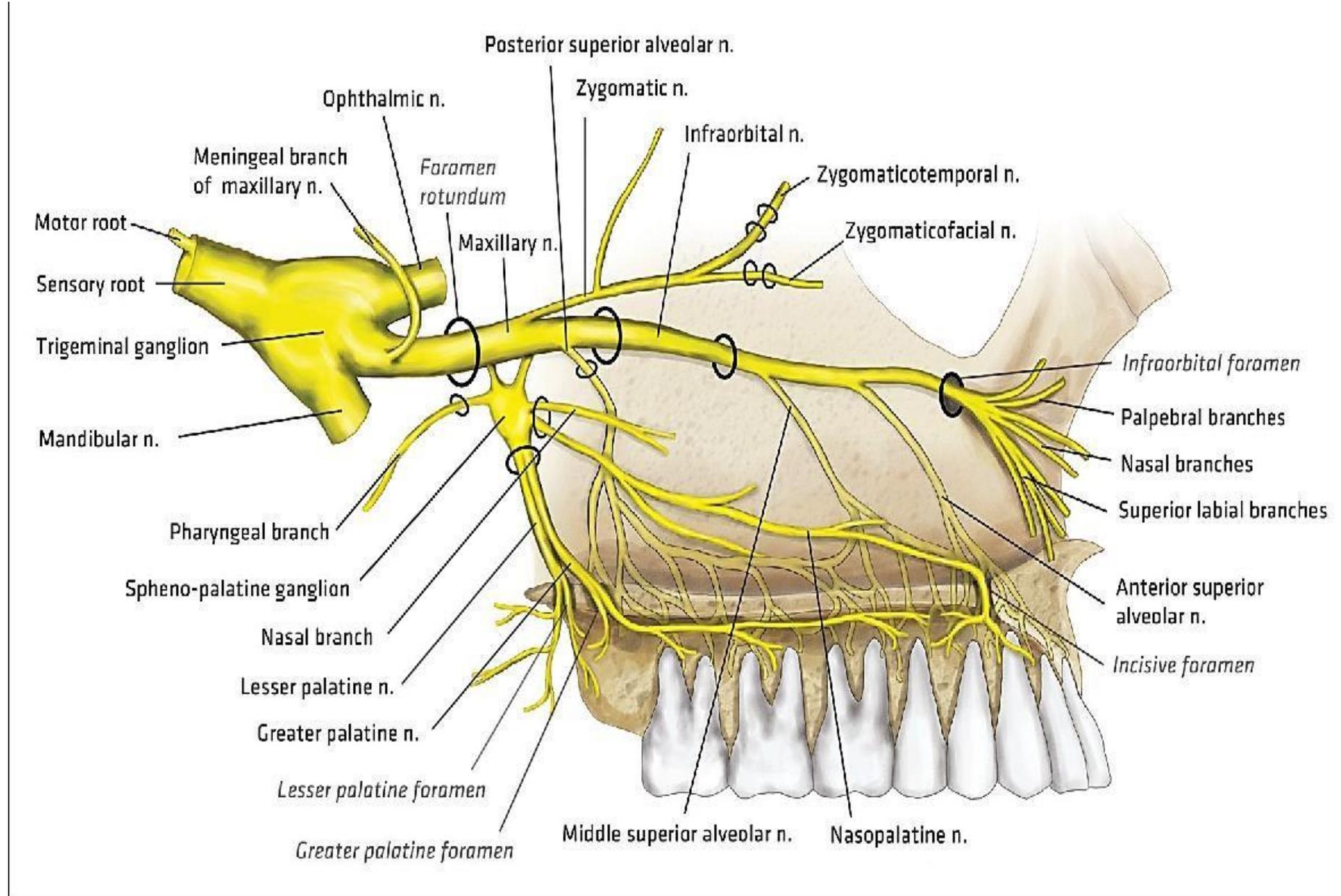
pterygopalatine fossa

- 1) maxillary nerve
- 2) pterygopalatine ganglion
- 3) 3<sup>rd</sup> branch of maxillary artery

- 1) cranial cavity - foramen rotundum
- 2) cranial cavity - pterygoid canal
- 3) orbit - inferior orbital fissure
- 4) nasal cavity - sphenopalatine foramen
- 5) nasopharynx - palatovaginal canal
- 6) infratemporal - pterygomaxillary fissure
- 7) oral cavity (roof) - greater palatine canal

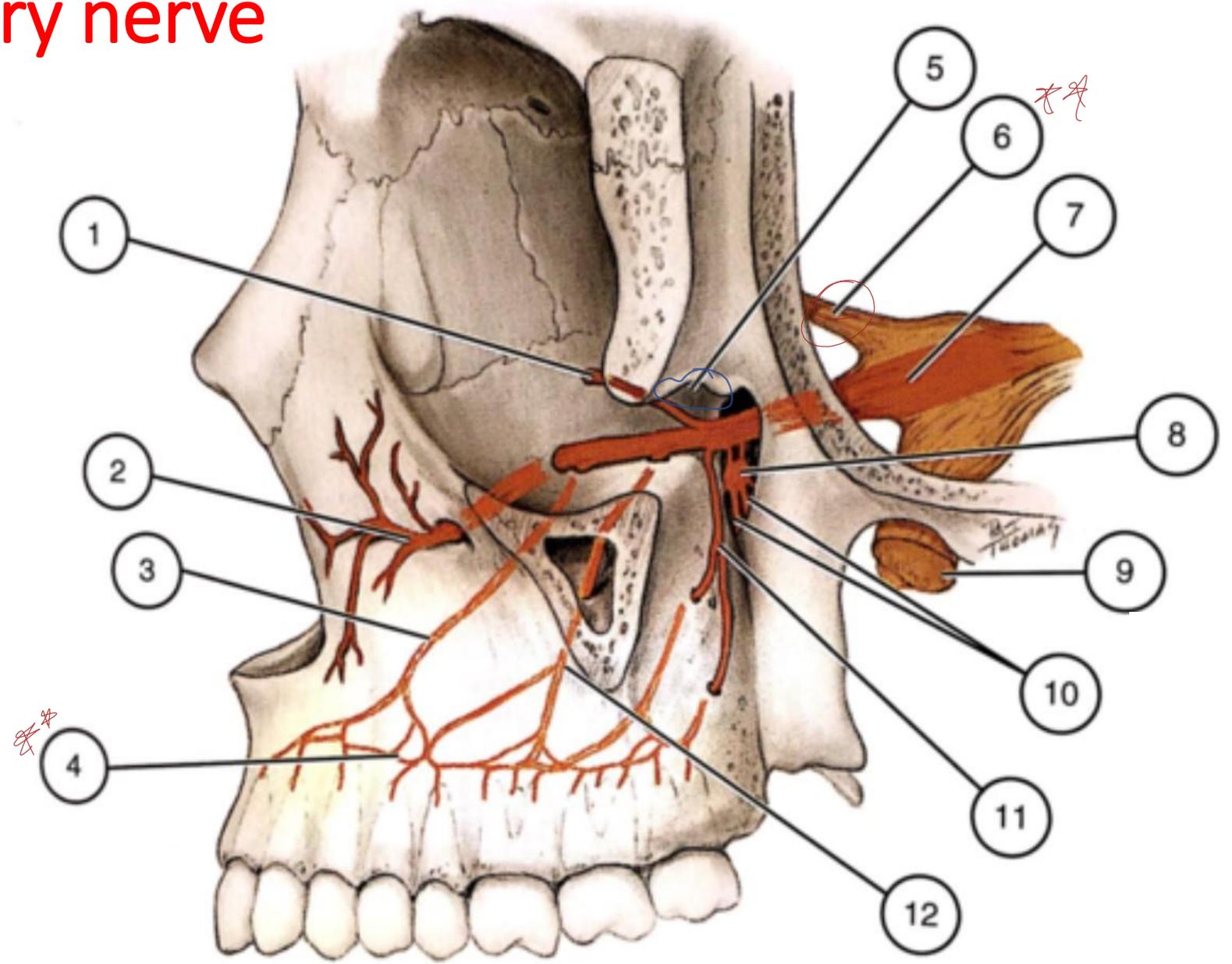


# Branches of maxillary nerve



# Label the following diagram showing branches of maxillary nerve

- 1) zygomatic nerve
- 2) infraorbital nerve
- 3) anterior superior alveolar nerve
- 4) <sup>\*\*</sup> superior dental plexus
- 5) <sup>\*</sup> inferior orbital fissure
- 6) ophthalmic nerve
- 7) maxillary nerve
- 8) sphenopalatine ganglion
- 9) mandibular nerve
- 10) pre and post ganglionic branch
- 11) posterior superior alveolar nerve
- 12) middle superior alveolar nerve



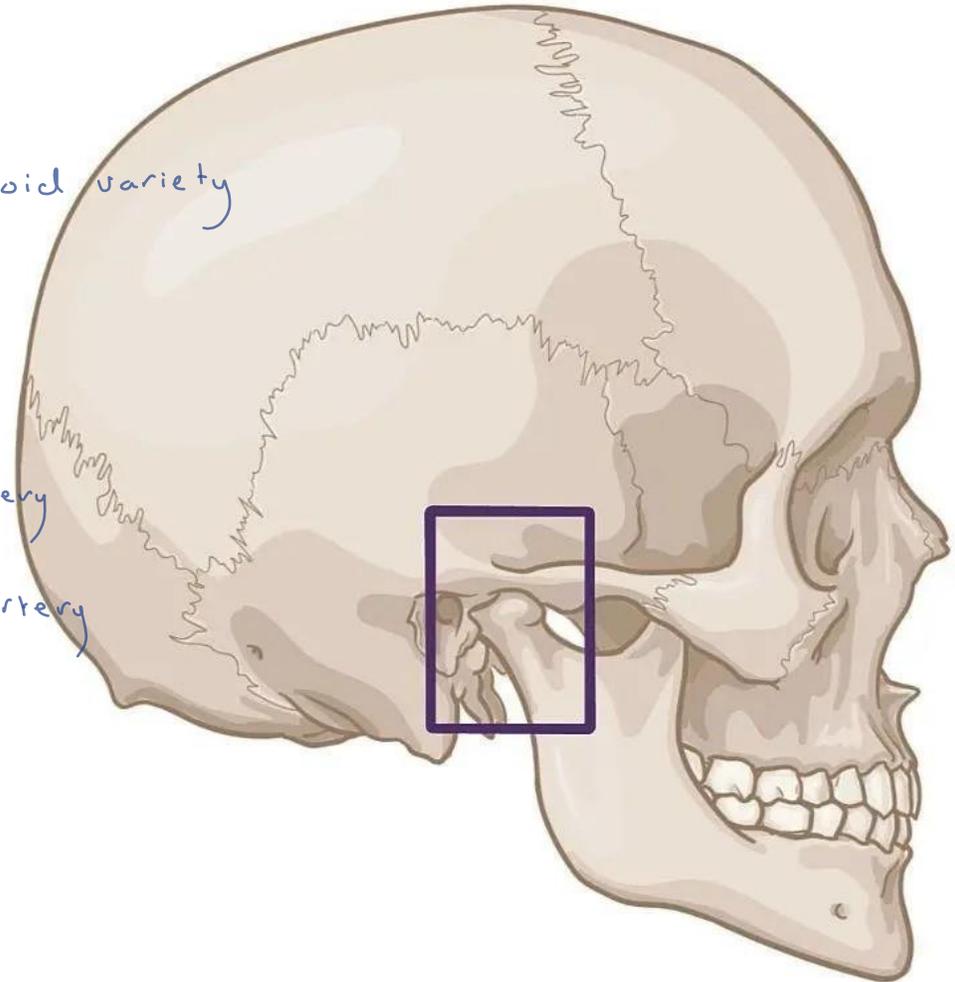
- Identify the joint TMJ

- mention its type synovial joint of condyloid variety

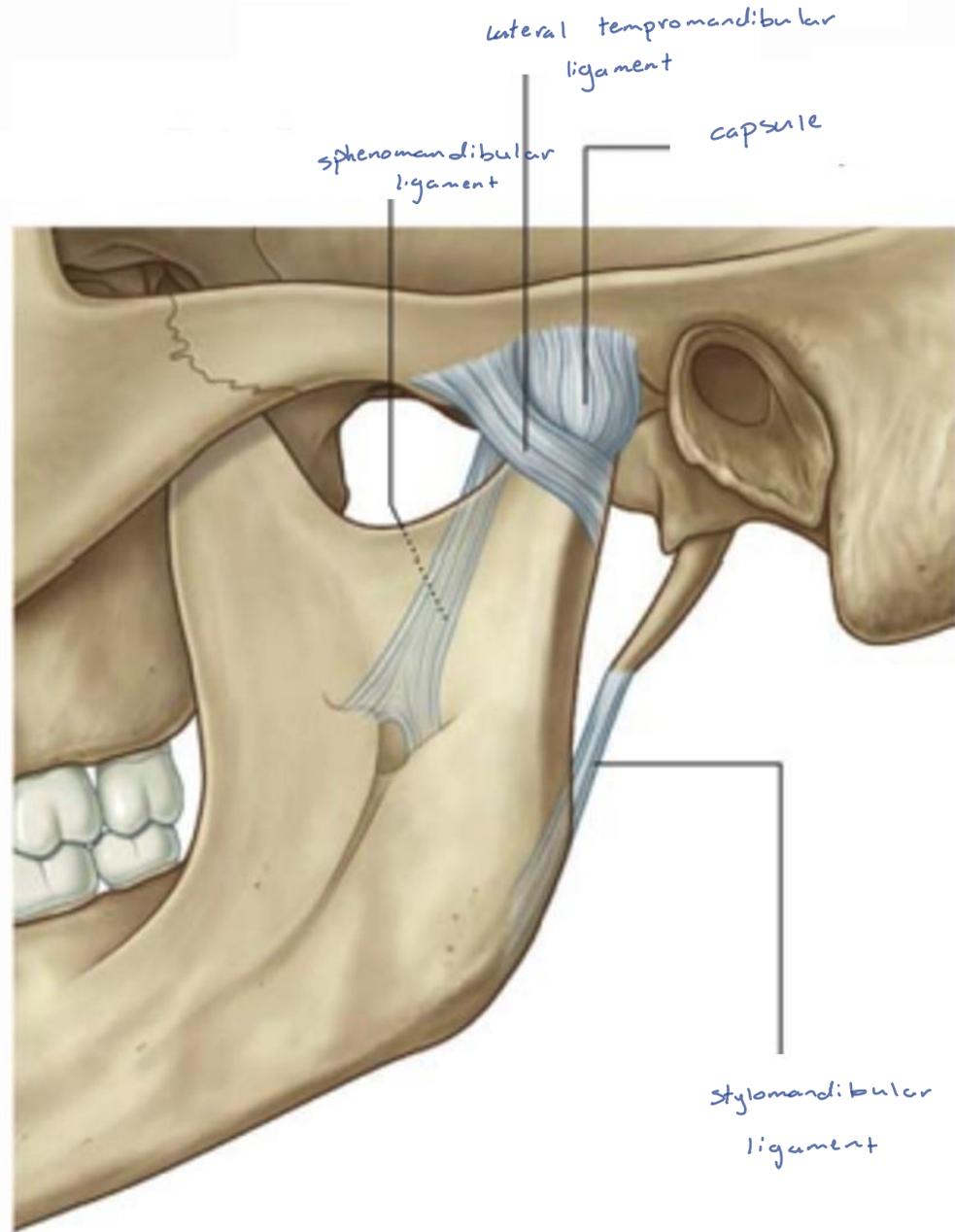
- mention its articular surfaces

- mention its arterial and nerve supply

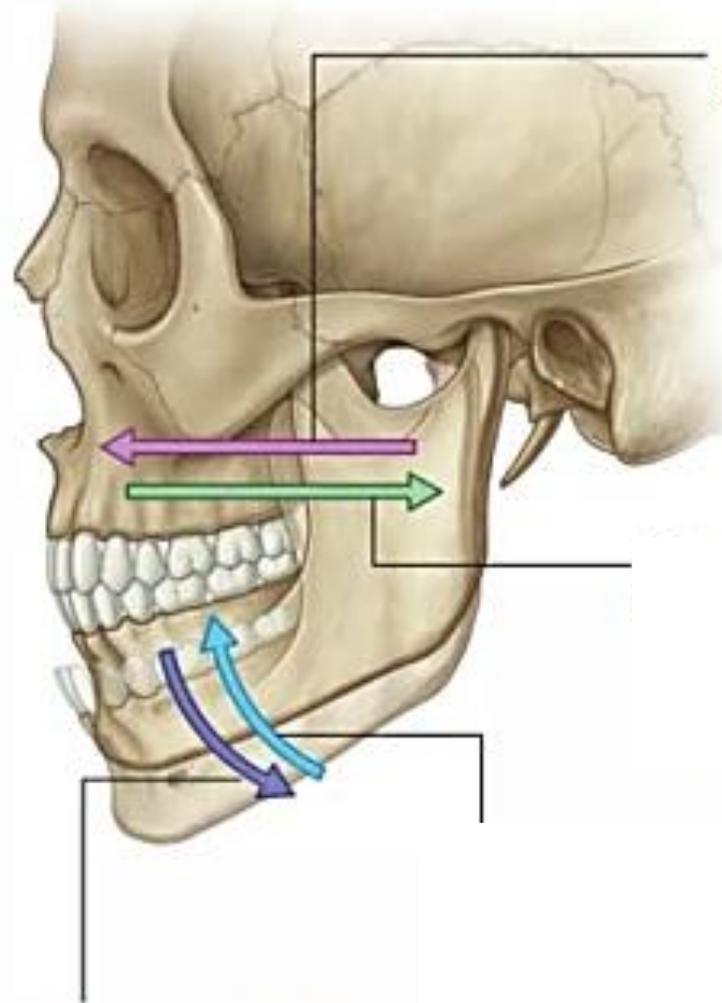
↳ Auriculotemporal nerve  
masseteric nerve



Label the following diagram



# Describe the movements of TMJ and mention muscles producing them



- \* elevation
  - temporalis
  - masseter
  - medial pterygoid

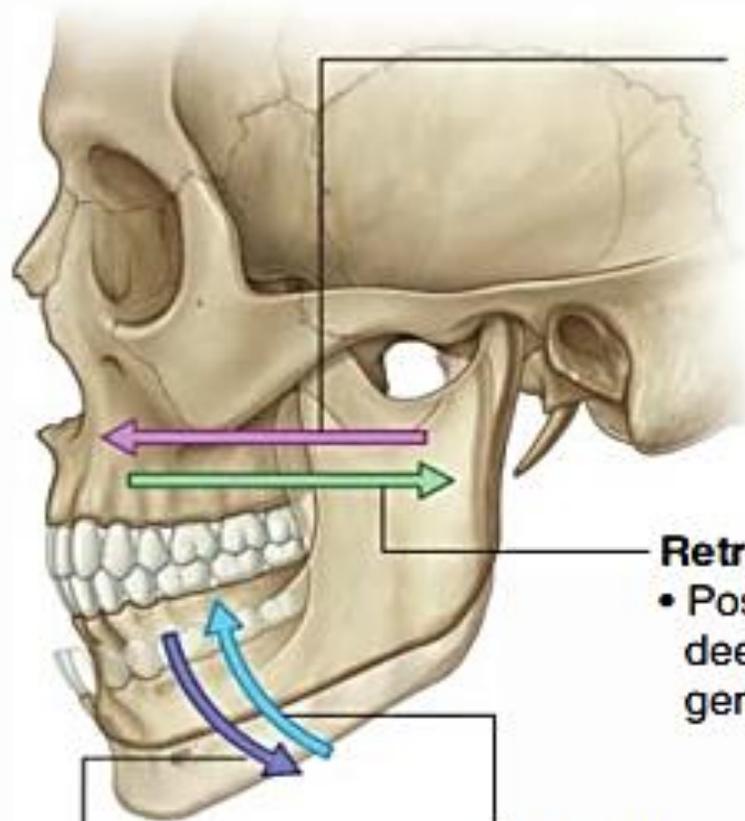
- \* depression
  - gravity
  - mylohyoid
  - geniohyoid
  - digastric muscles

- \* protrusion
  - masseter
  - lateral pterygoid
  - medial pterygoid

- \* retraction
  - temporalis

- \* side to side movement
  - medial pterygoid
  - lateral pterygoid

but alternately



**Protrusion**

- Lateral pterygoid assisted by medial pterygoid

**Retraction**

- Posterior fibers of temporalis, deep part of masseter, and geniohyoid and digastric

**Elevation**

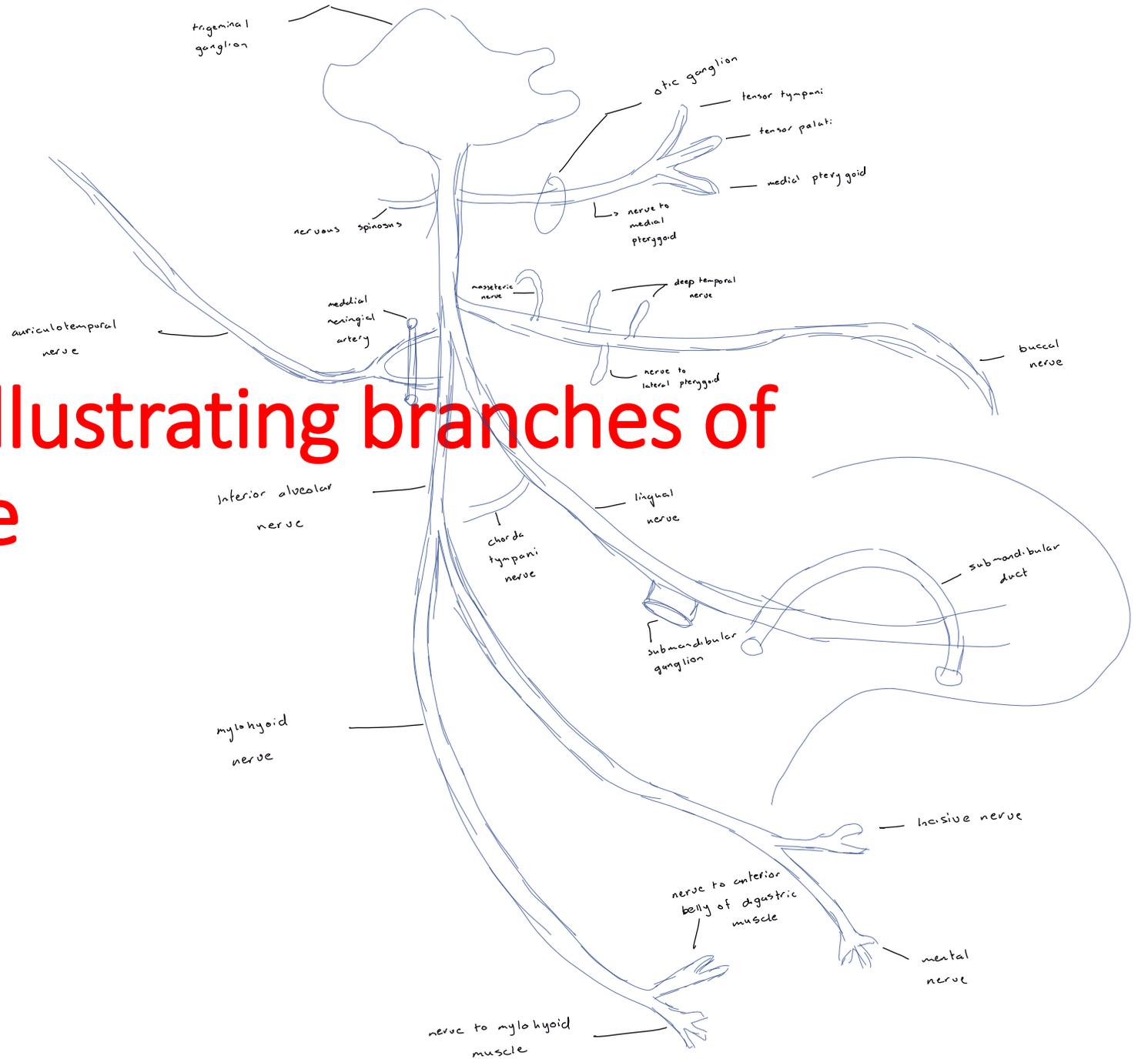
- Temporalis, masseter, medial pterygoid

**Depression**

- Gravity
- Digastric, geniohyoid, and mylohyoid muscles

**Lateral pterygoid**

# Draw a diagram illustrating branches of mandibular nerve



THANK

YOU!

