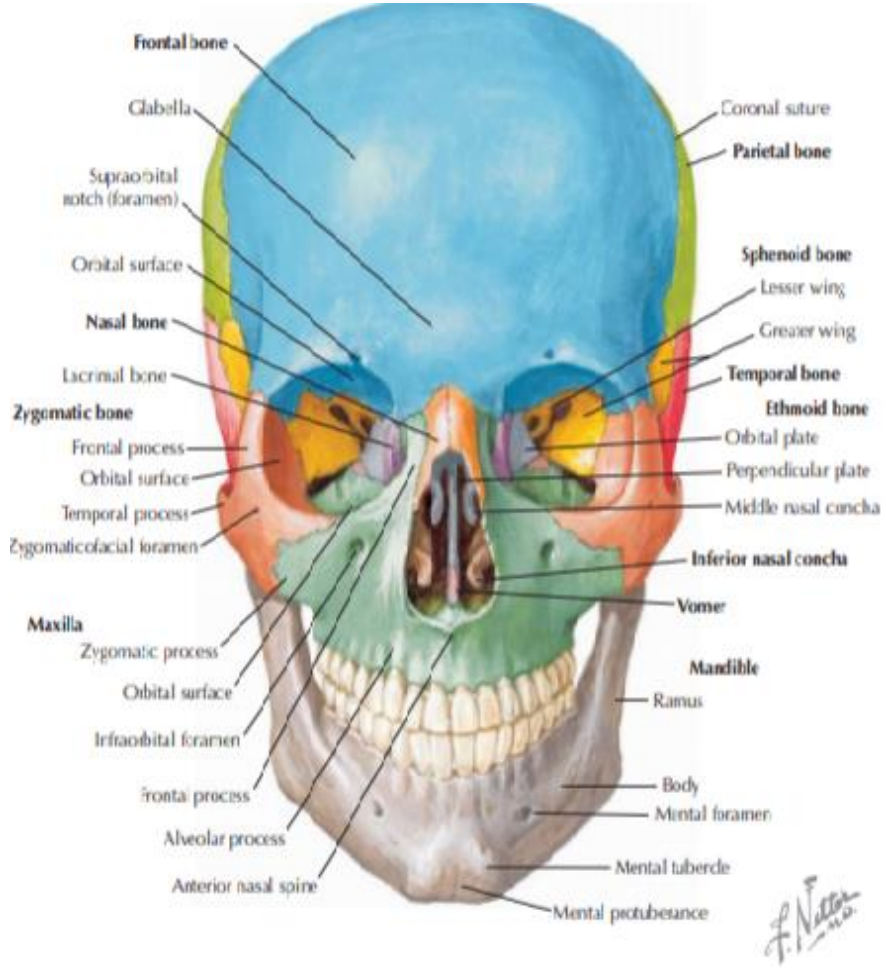
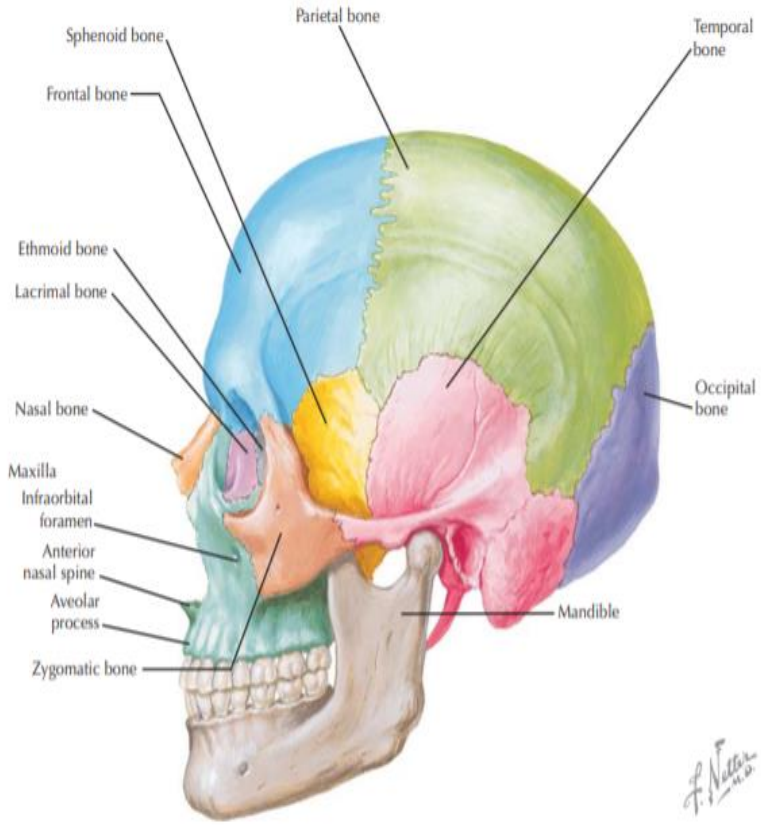
# Head and neck anatomy

Dr. Ahmad Mustafa Al-tarawneh

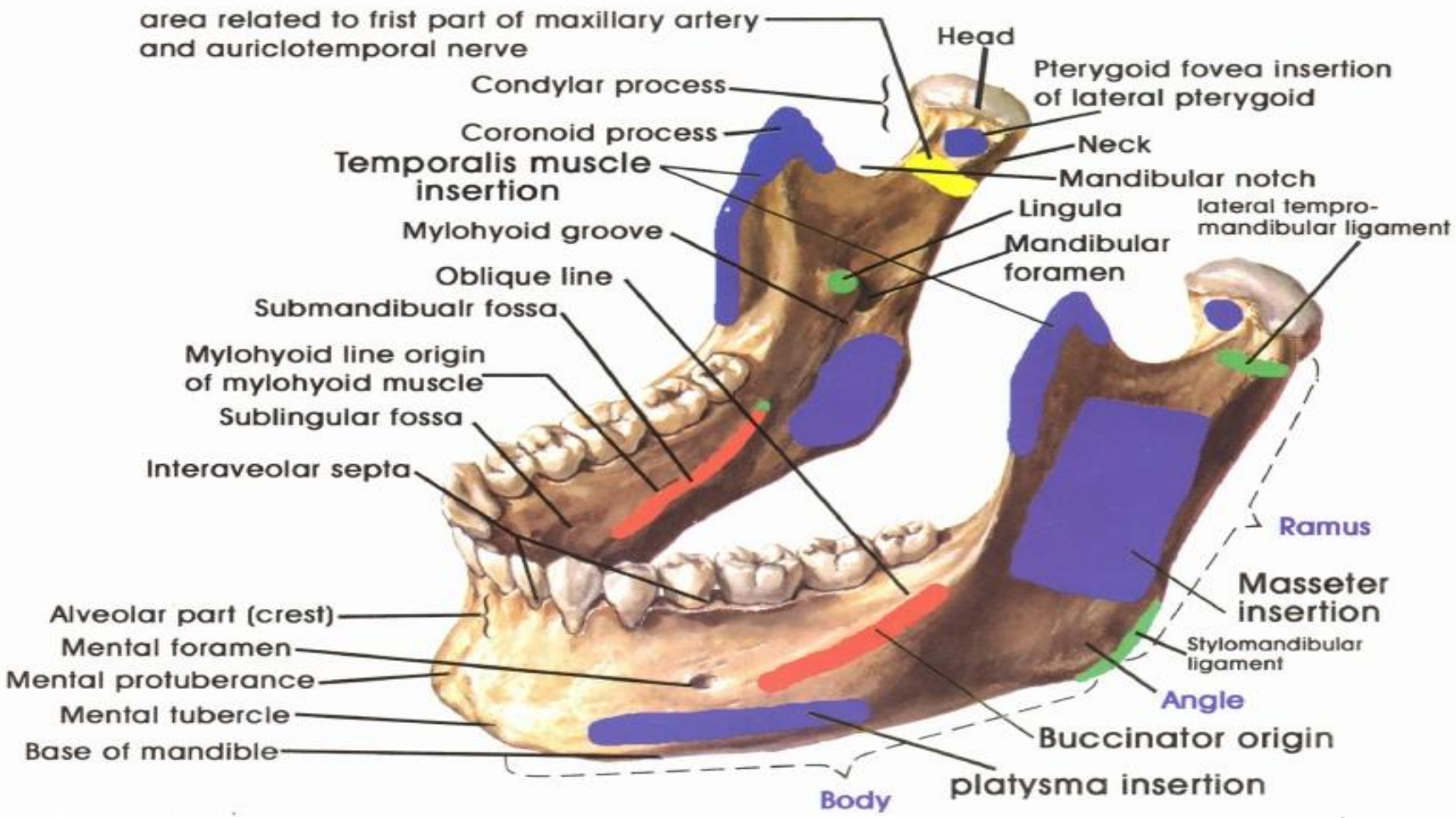
OMFS

# skull

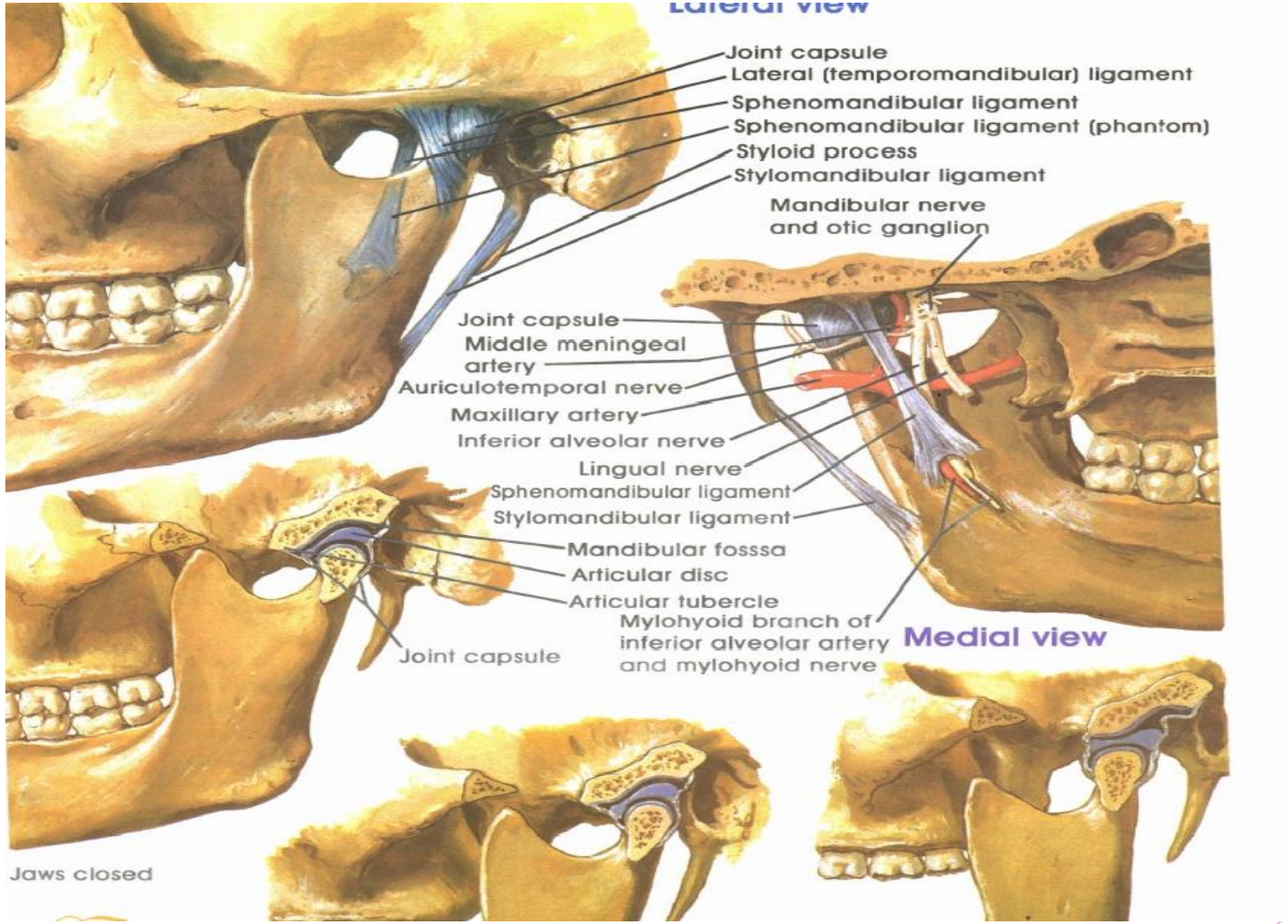

Frontal bone
Glabella
Supraorbital notch (foramen)
Orbital surface
Nasal bone
Lacrimal bone
Zygomatic bone
Frontal process
Orbital surface
Temporal process
Zygomaticofacial foramen
Maxilla
Zygomatic process
Orbital surface
Infraorbital foramen
Frontal process
Alveolar process
Anterior nasal spine
Coronal suture
Parietal bone
Sphenoid bone
Lesser wing
Greater wing
Temporal bone
Ethmoid bone
Orbital plate
Perpendicular plate
Middle nasal concha
Inferior nasal concha
Vomer
Mandible
Ramus
Body
Mental foramen
Mental tubercle
Mental protuberance


Sphenoid bone
Frontal bone
Parietal bone
Temporal bone
Ethmoid bone
Lacrimal bone
Nasal bone
Maxilla
Infraorbital foramen
Anterior nasal spine
Aveolar process
Zygomatic bone
Occipital bone
Mandible

# mandible


area related to frist part of maxillary artery and auriclotemporal nerve
Condylar process
Coronoid process
Temporalis muscle insertion
Mylohyoid groove
Oblique line
Submandibualr fossa
Mylohyoid line origin of mylohyoid muscle
Sublingular fossa
Interaveolar septa
Alveolar part (crest)
Mental foramen
Mental protuberance
Mental tubercle
Base of mandible
Head
Pterygoid fovea insertion of lateral pterygoid
Neck
Mandibular notch
Lingula
Mandibular foramen
lateral tempro-mandibular ligament
Ramus
Masseter insertion
Stylomandibular ligament
Angle
Buccinator origin
platysma insertion
Body

# TMJ

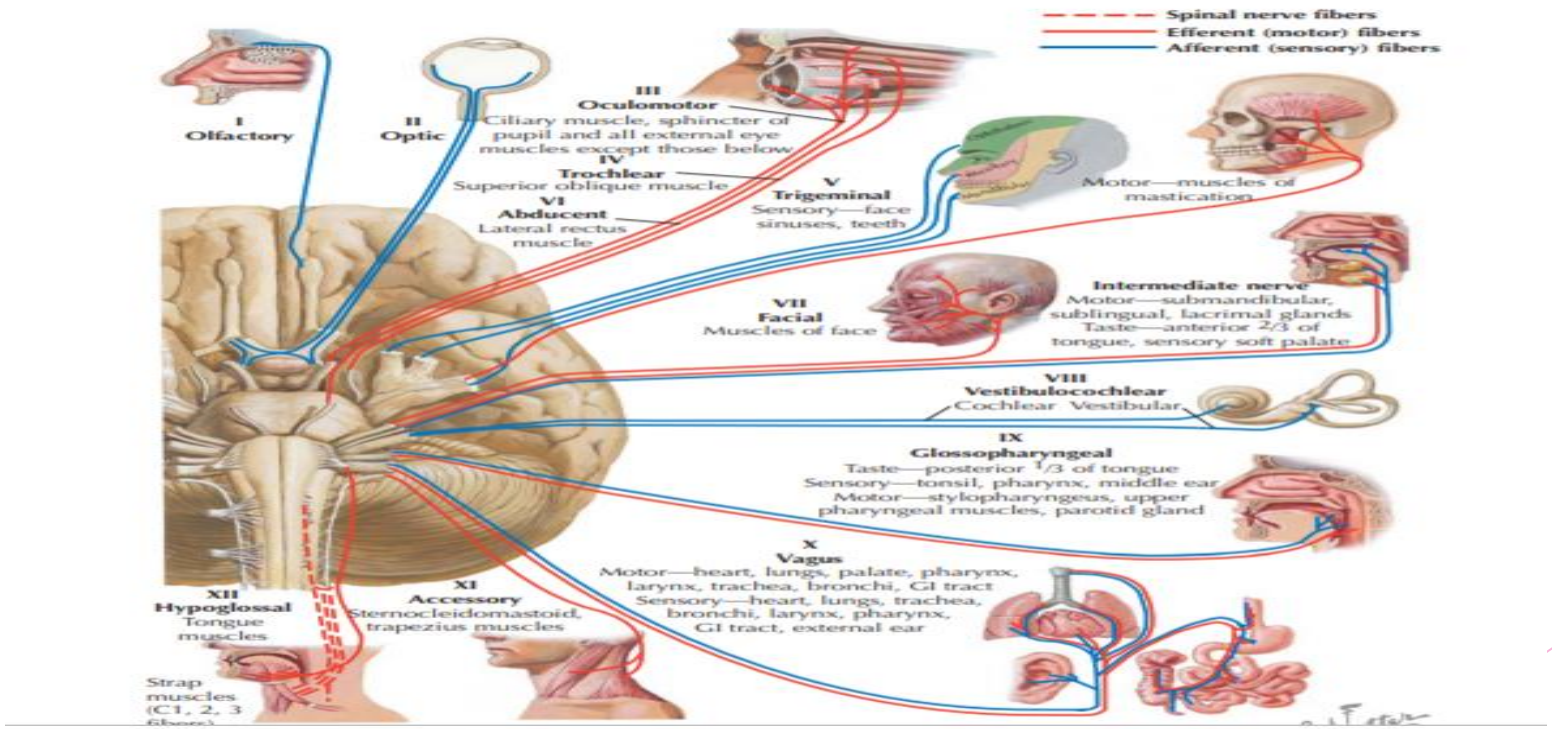

Lateral view
Joint capsule
Lateral (temporomandibular) ligament
Sphenomandibular ligament
Sphenomandibular ligament (phantom)
Styloid process
Stylomandibular ligament
Mandibular nerve
and otic ganglion
Joint capsule
Middle meningeal
artery
Auriculotemporal nerve
Maxillary artery
Inferior alveolar nerve
Lingual nerve
Sphenomandibular ligament
Stylomandibular ligament
Mandibular fosssa
Articular disc
Articular tubercle
Joint capsule
Mylohyoid branch of
inferior alveolar artery
and mylohyoid nerve
Medial view
Jaws closed

# Cranial nerves

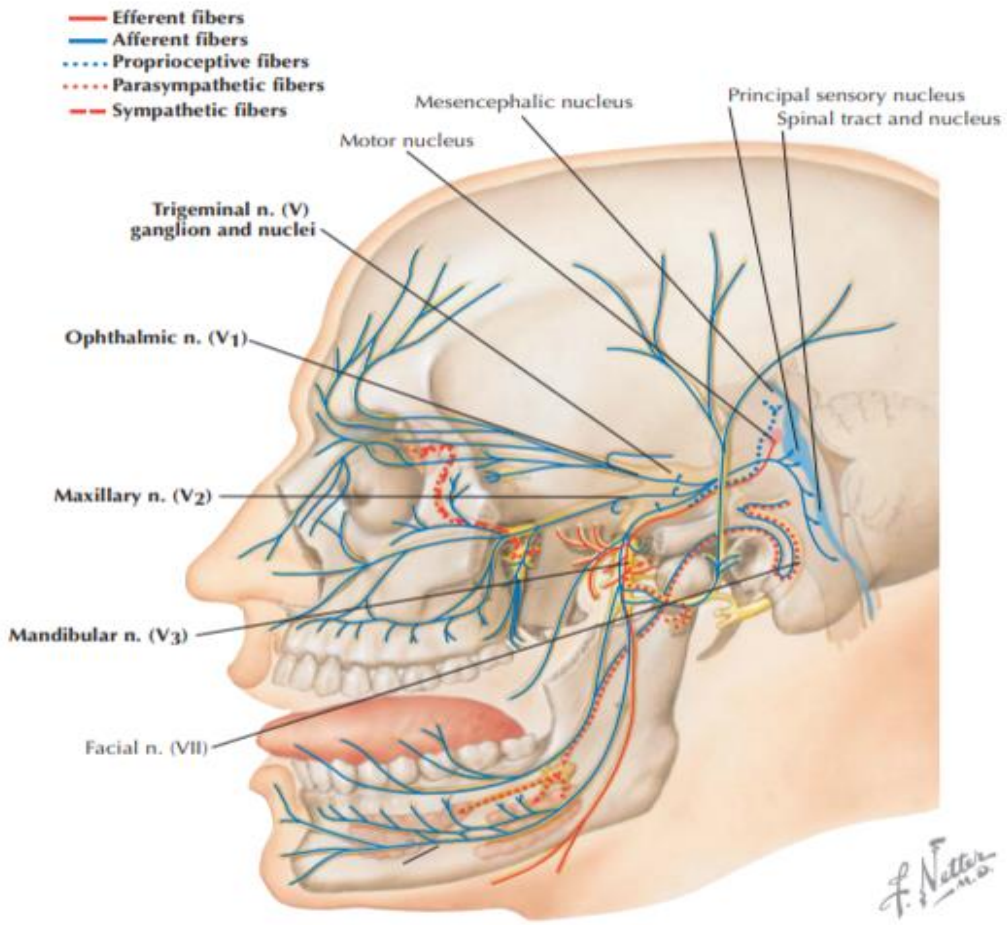
The cranial nerves customarily are subdivided into 12 pairs:

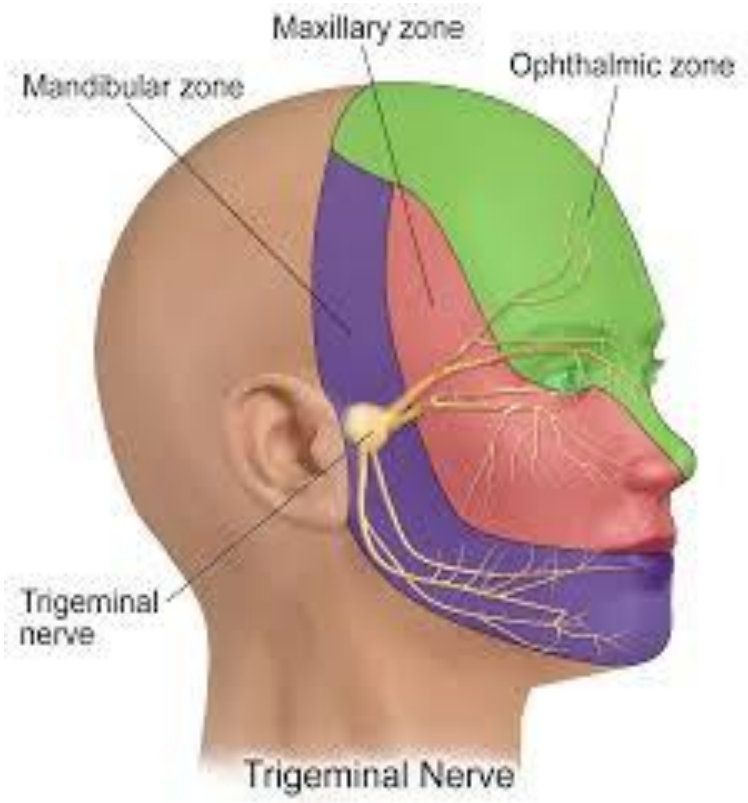
I: Olfactory nerve
II: Optic nerve
III: Oculomotor nerve
IV: Trochlear nerve
V: Trigeminal nerve
VI: Abducens nerve
VII: Facial nerve
VIII: Vestibulocochlear nerve
IX: Glossopharyngeal nerve
X: Vagus nerve
XI: Spinal accessory nerve
XII: Hypoglossal nerve

Because of the high degree of differentiation in the brain of humans, cranial nerves are more complex in structure and function than spinal nerves

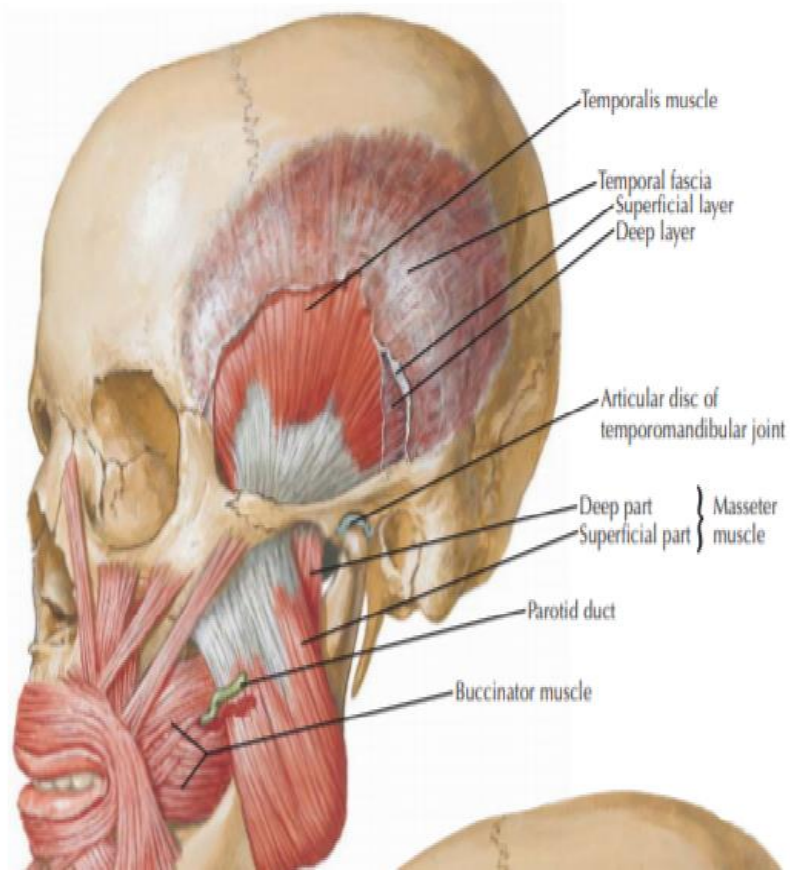


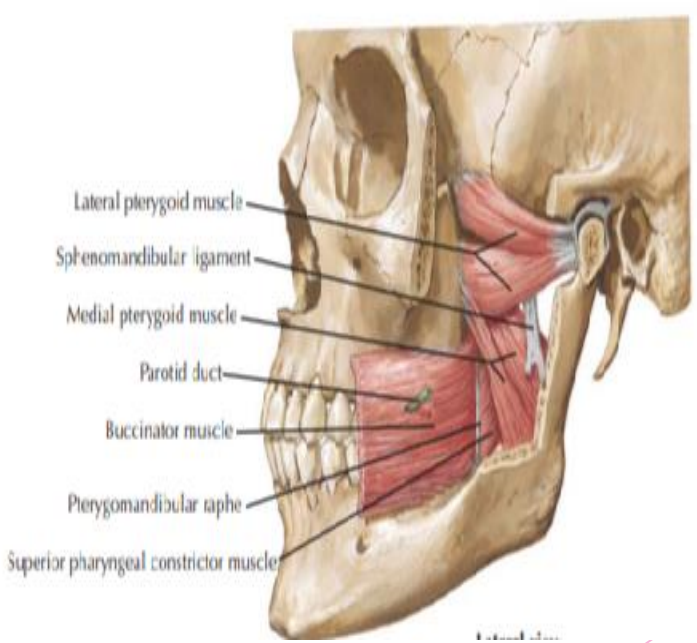
# Trigeminal nerve



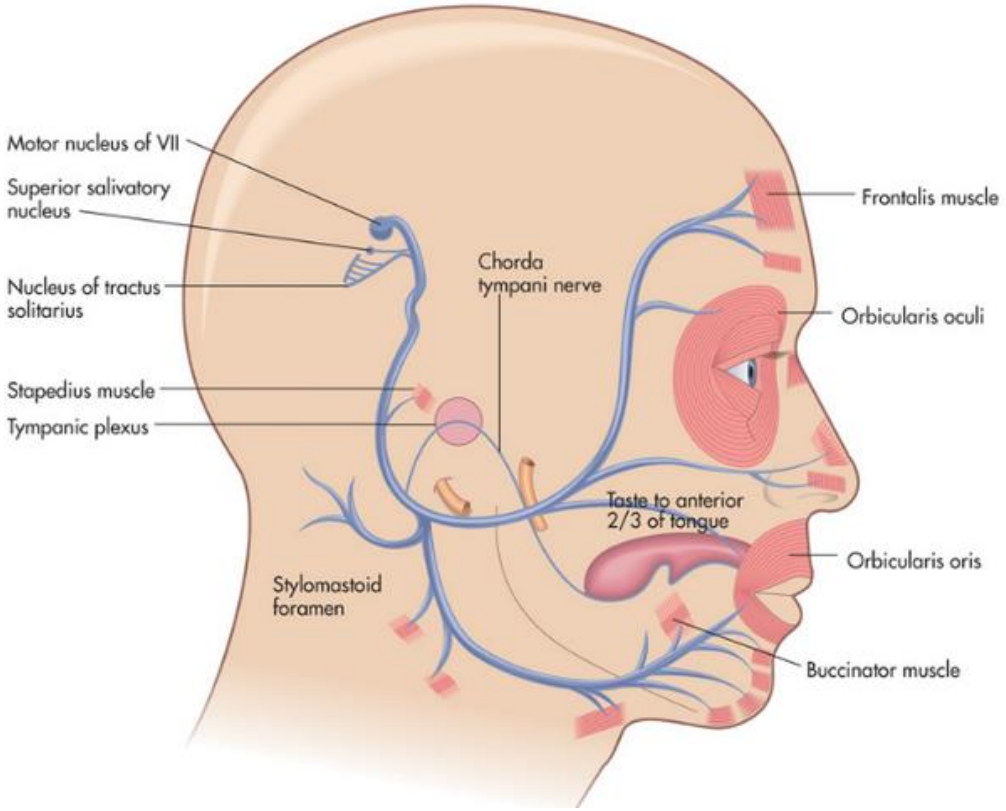



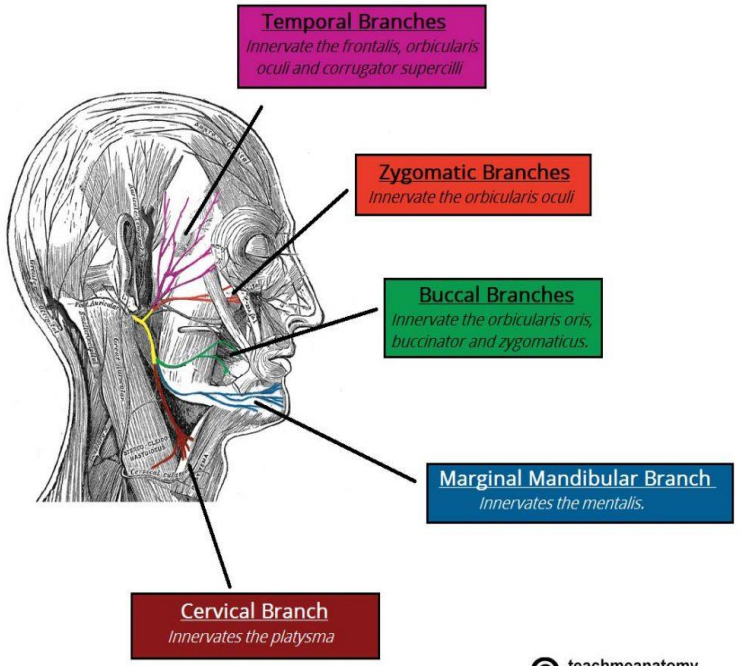
# Muscles of Mastication



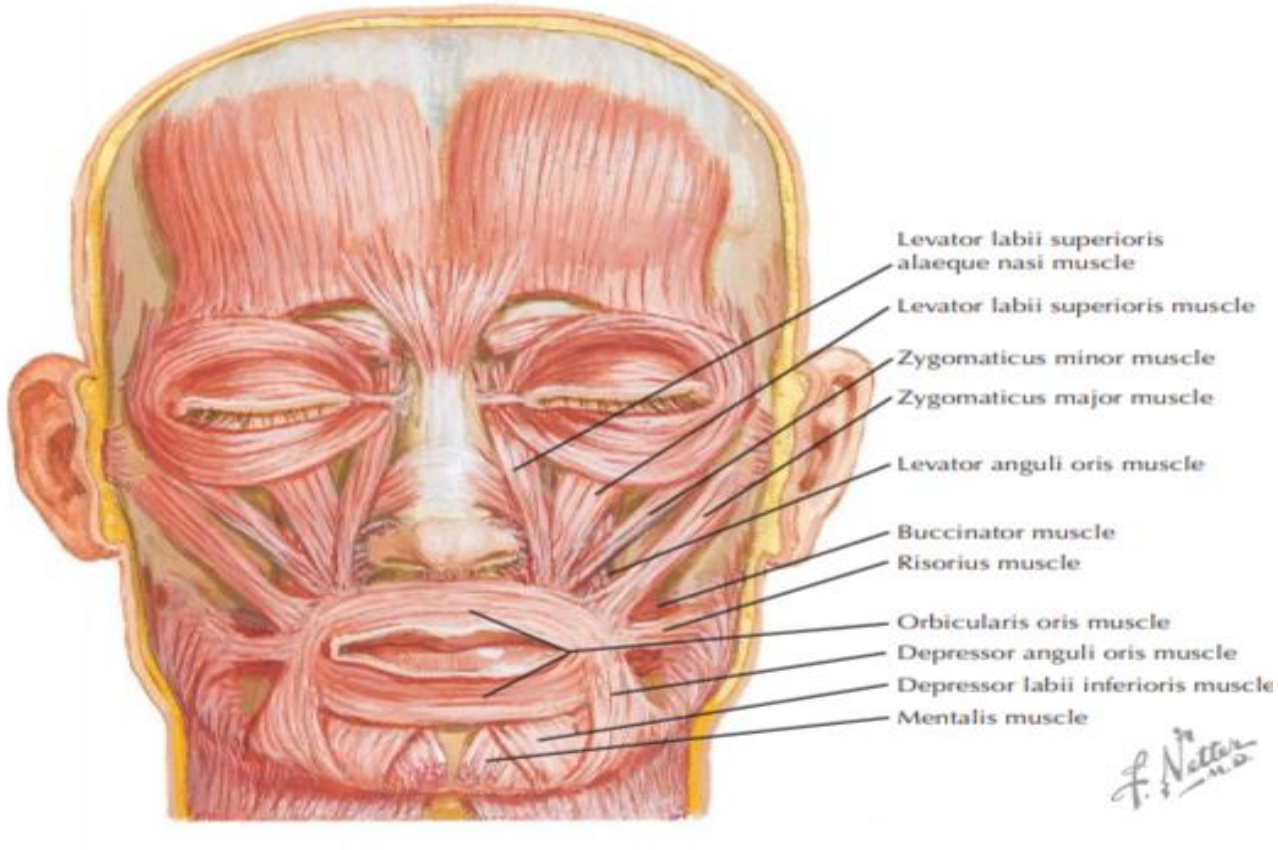



# Facial nerve

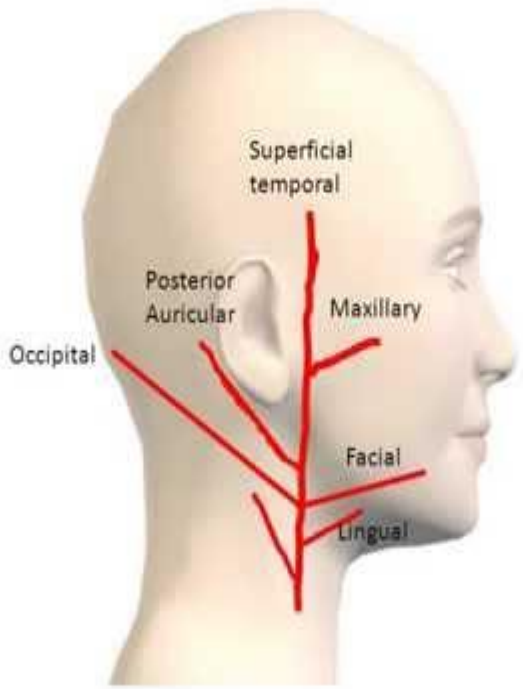


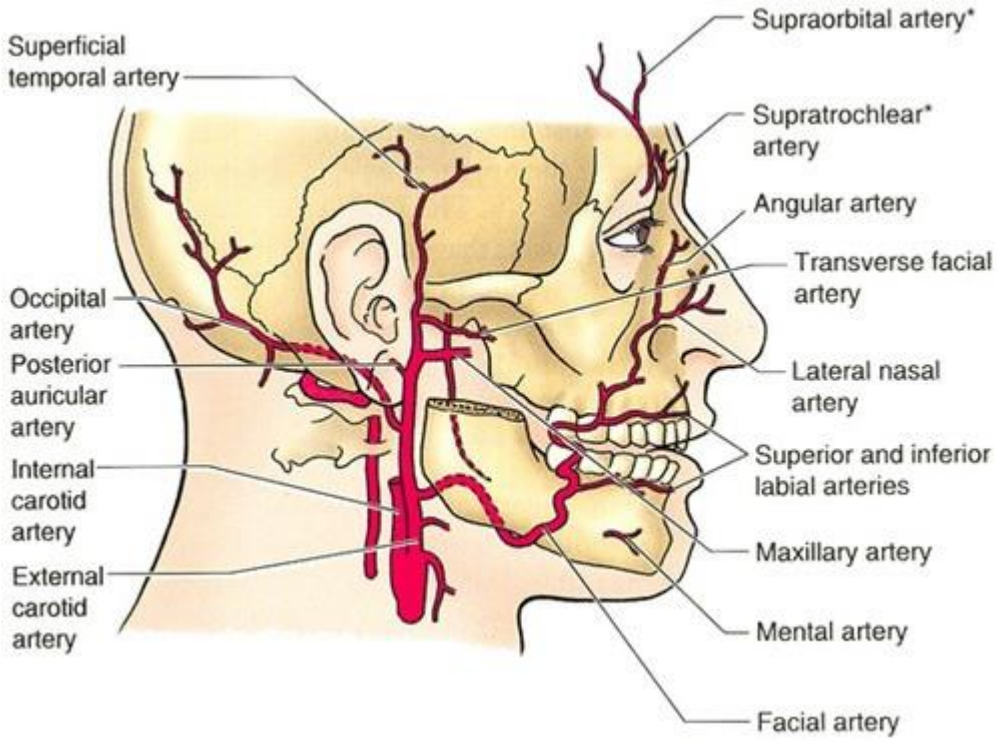



# Muscles of facial expression



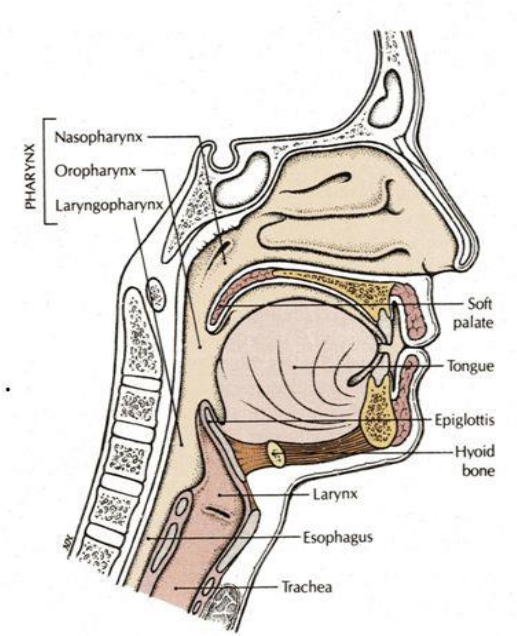
# Blood supply



# Oral cavity

## The Mouth




➢**The mouth cavity** is divided into **vestibule** & **mouth cavity proper.**

➢**Vestibule of mouth** lies between lips + cheeks (buccinator) **externally,** /and gums + teeth **internally.**

➢**The mouth cavity proper :**

**Boundaries :**

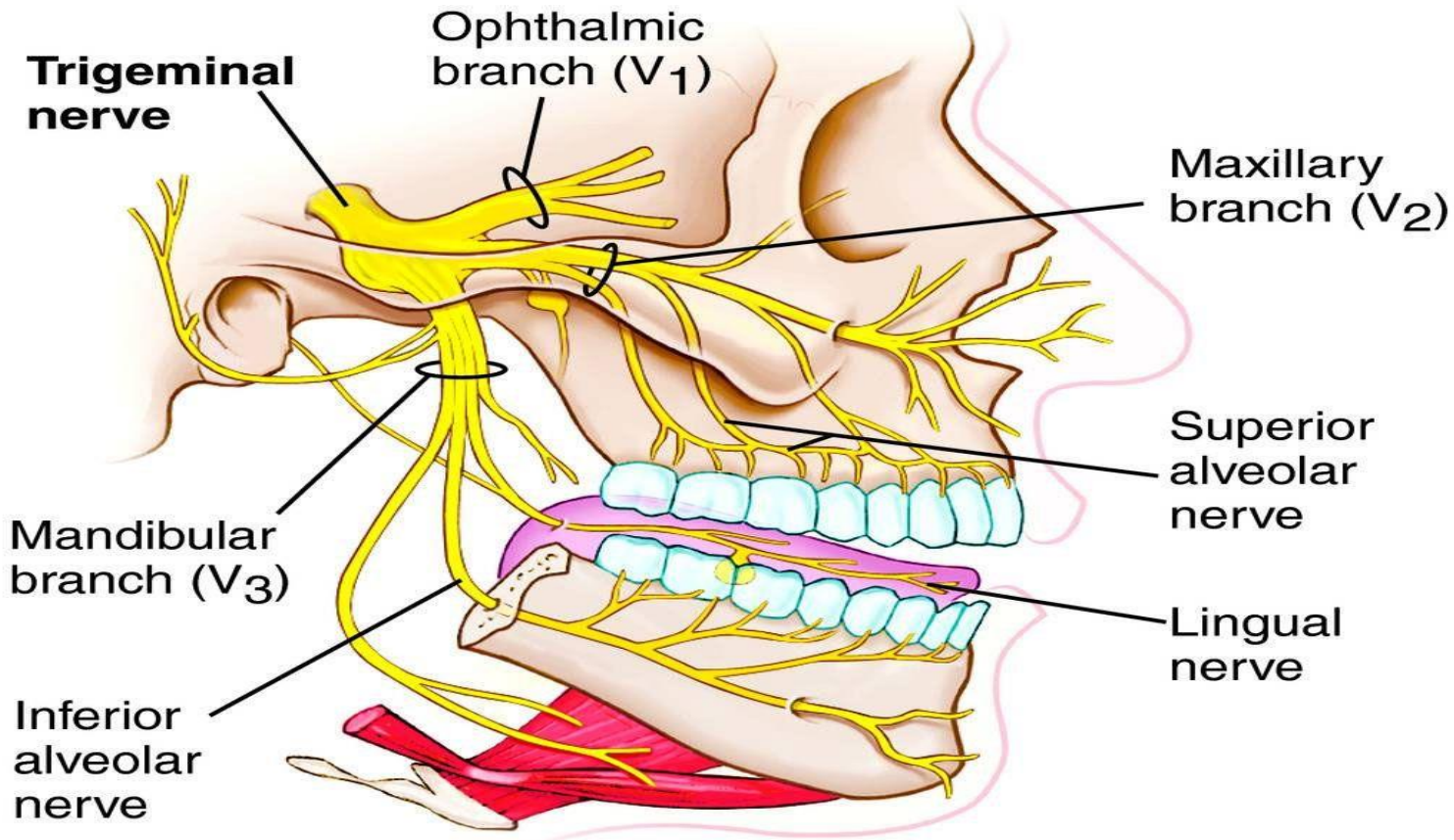
**1-In front and at the sides :** gums & teeth

**2- Roof : hard palate in front & soft palate behind.**

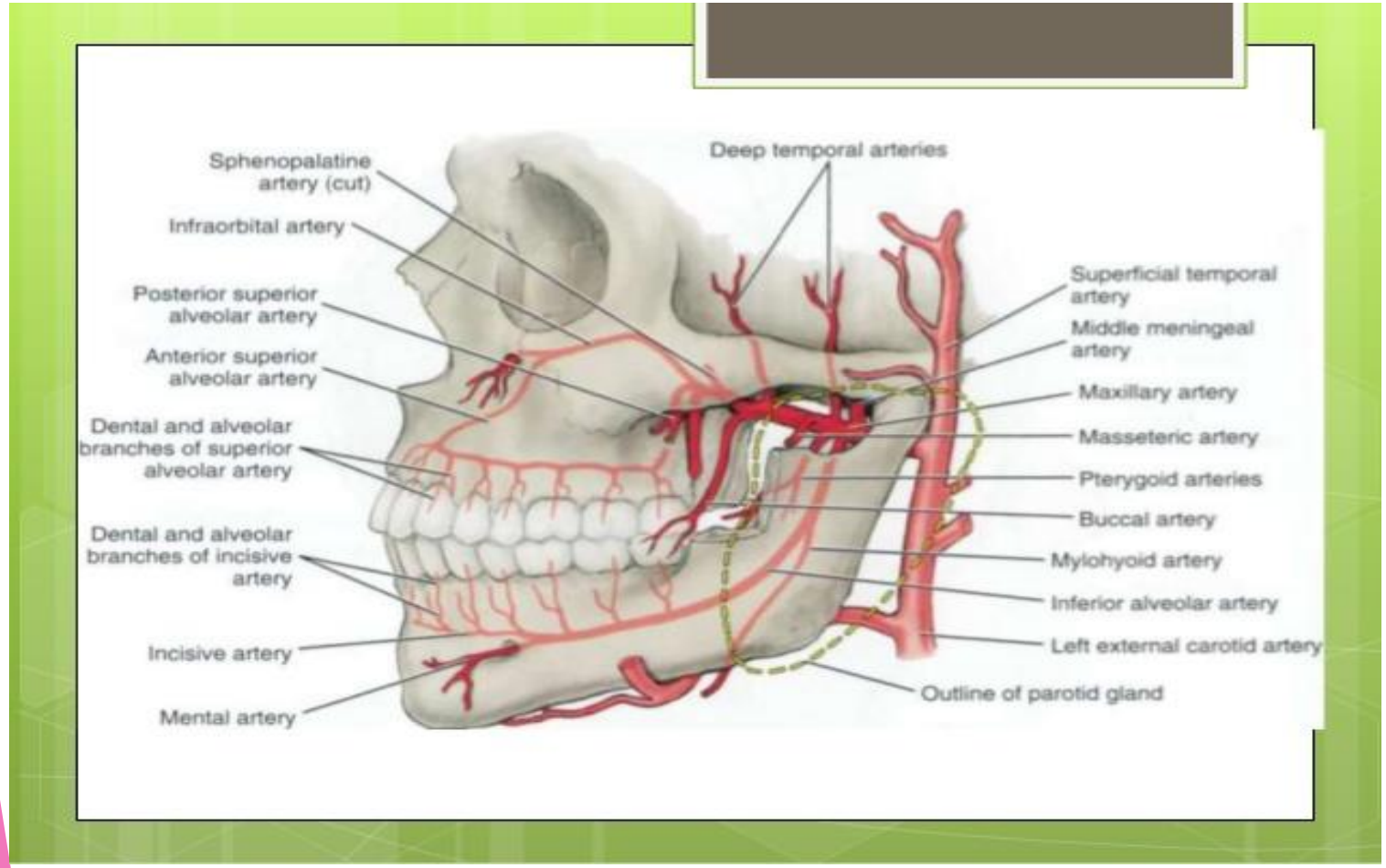
**3- Floor : anterior 2/3 of tongue & sublingual region.**

**4-Posteriorly :** mouth communicates with oropharynx by **oropharyngeal isthmus.**

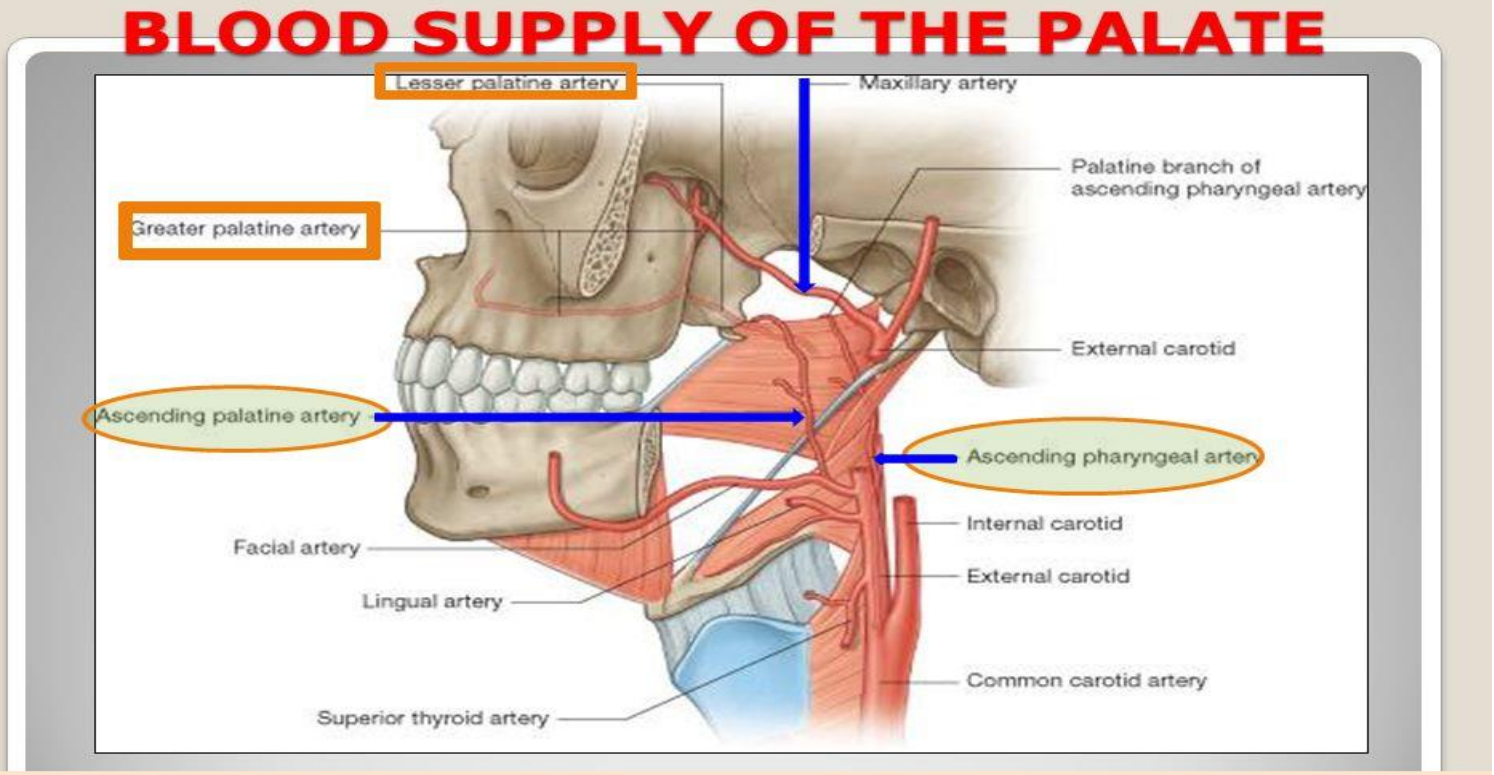
# Oral cavity


Trigeminal nerve
Ophthalmic branch ($V_1$)
Maxillary branch ($V_2$)
Superior alveolar nerve
Lingual nerve
Mandibular branch ($V_3$)
Inferior alveolar nerve

# Oral cavity

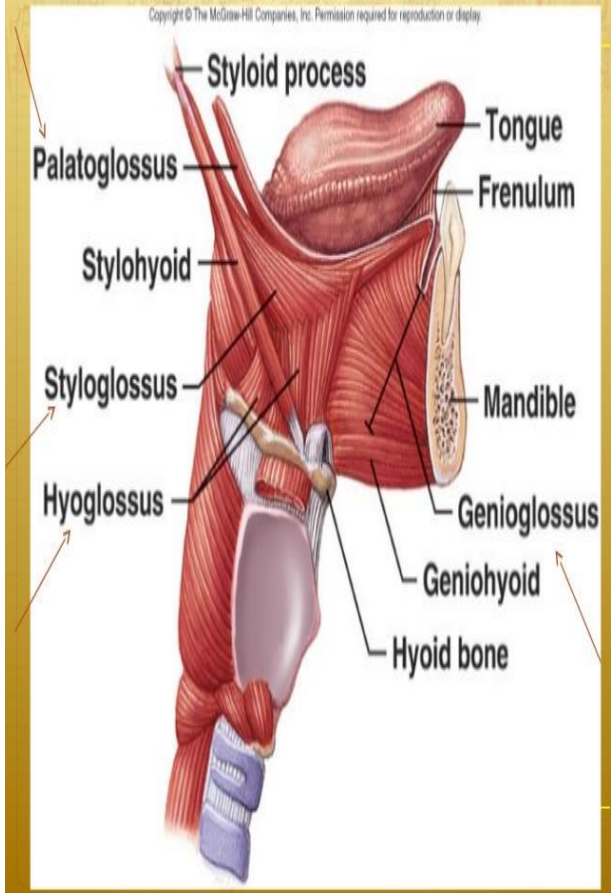

Sphenopalatine artery (cut)
Infraorbital artery
Posterior superior alveolar artery
Anterior superior alveolar artery
Dental and alveolar branches of superior alveolar artery
Dental and alveolar branches of incisive artery
Incisive artery
Mental artery
Deep temporal arteries
Superficial temporal artery
Middle meningeal artery
Maxillary artery
Masseteric artery
Pterygoid arteries
Buccal artery
Mylohyoid artery
Inferior alveolar artery
Left external carotid artery
Outline of parotid gland

# Oral cavity




- **Greater & lesser palatine** *branches* of the **maxillary artery.**
- **Ascending palatine branch** of the **facial artery.**
- **Ascending pharyngeal** branch of the **external carotid artery.**

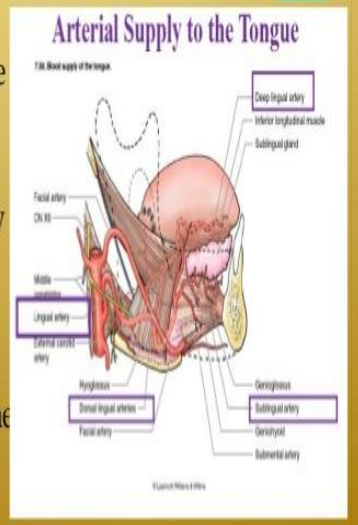
# tongue



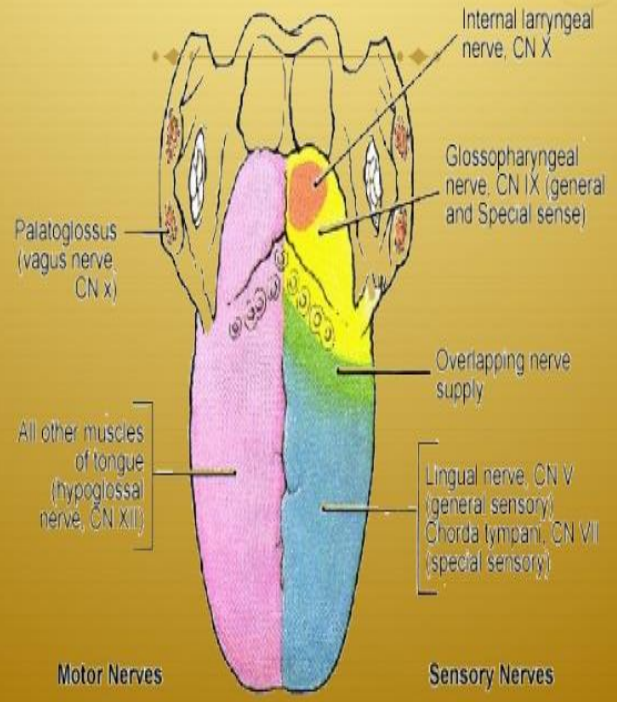

## Vascular supply of the tongue

**Lingual artery**

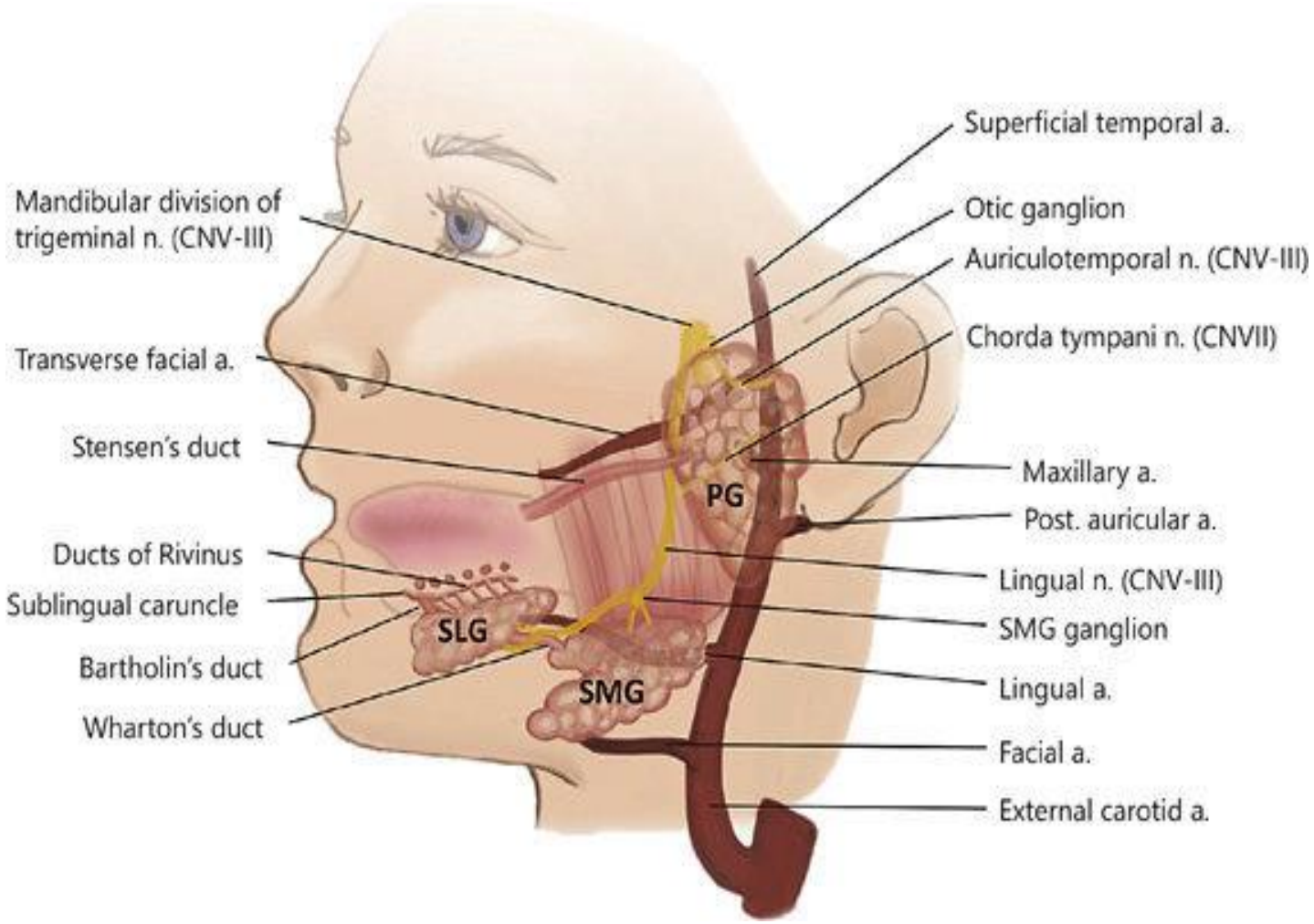
- A branch of external carotid artery(after passing deep to the hyoglossus muscles)
- Divides into :
- Dorsal lingual arteries: supply posterior part
- Deep lingual artery : supplies the anterior part
- Sublingual artery : supplies the sublingual gland and floor of the mouth




## Innervation of the tongue



# Salivary gland



# saliva

## COMPOSITION OF SALIVA

Major components of saliva are :

1) **Mucus** → serves as a lubricant
2) **Amylase** → initiates the digestion of starch
3) **Lingual lipase** → begins digestion of fat
4) **Electrolyte solution** ( $Na^+$, $Cl^-$ ,$K^+$,$HCO_3^-$) → moistens food
5) **Proteins and enzymes** :

statherins, Proline-rich proteins, histatins, lysozymes, salivary peroxidase

- Antimicrobial action
- Lubrication
- Buffer capacity and remineralization


BEST
wishes