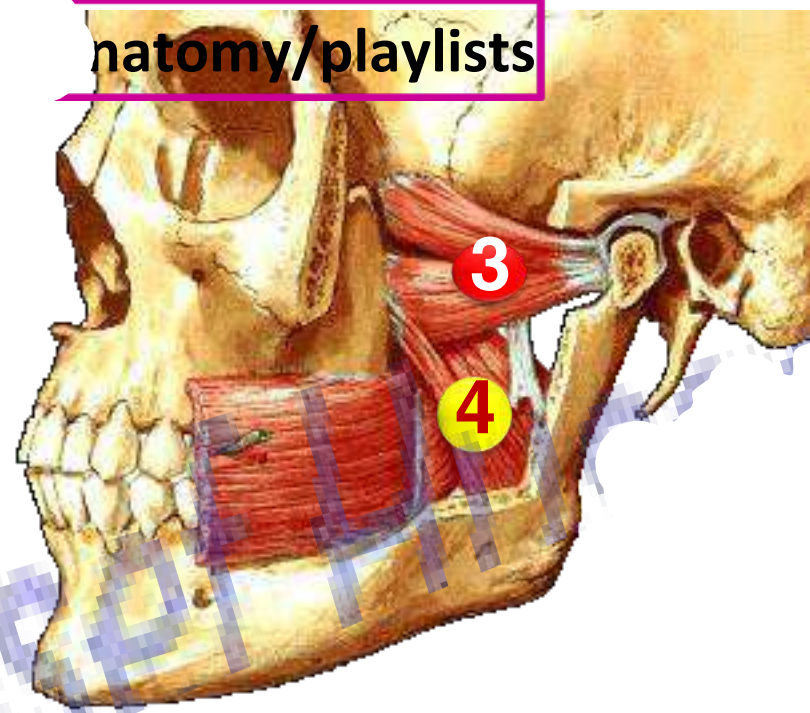
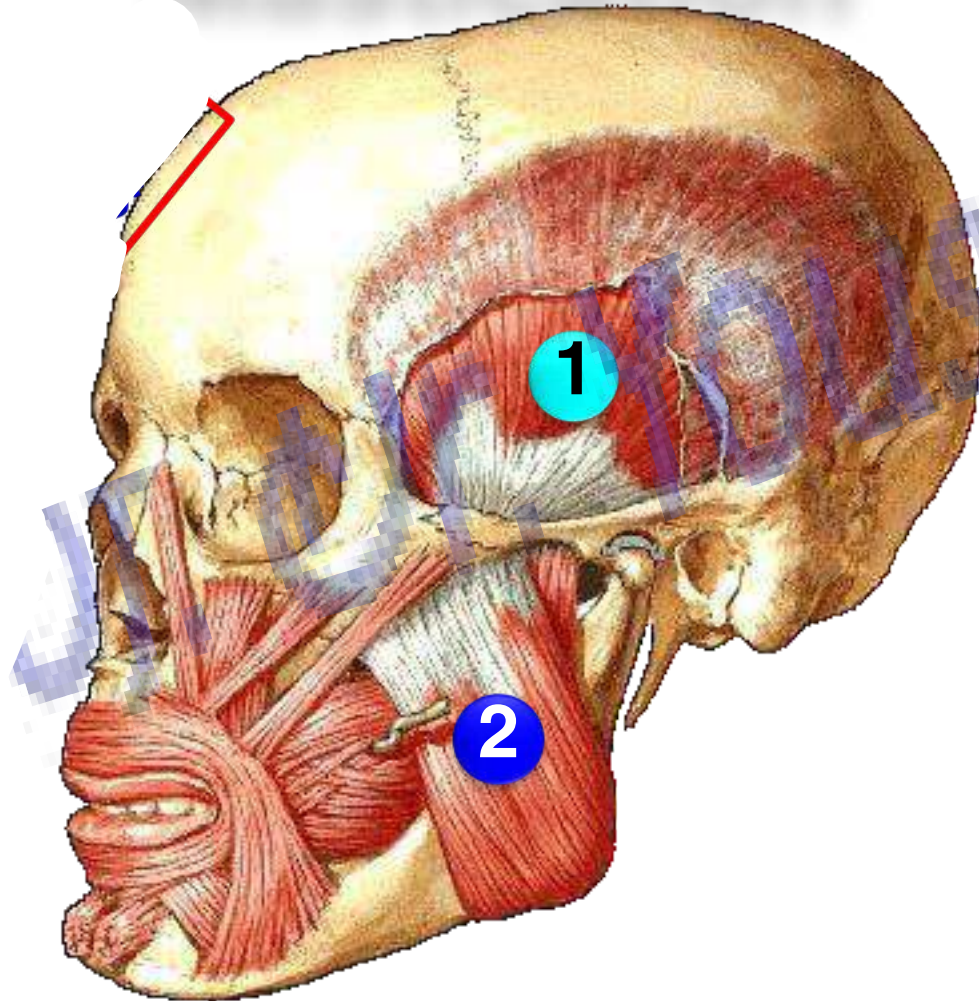


Muscles of Mastication



1. Temporalis
2. Masseter
3. Lateral Pterygoid
4. Medial pterygoid

Temporalis

Origin From Temporal fossa and temporal fascia

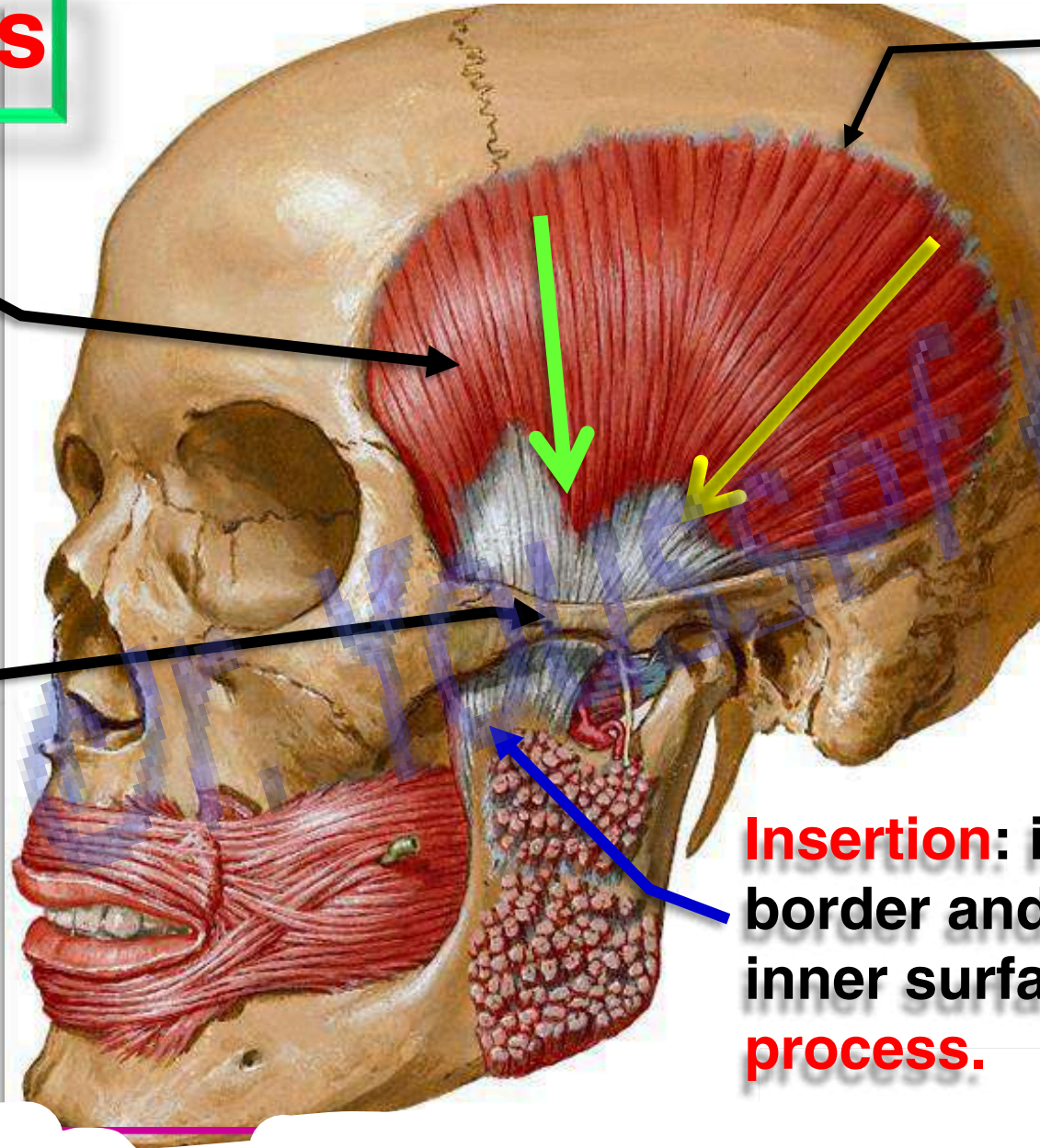
Zygomatic arch.

Fan shaped muscle

Origin From Inferior temporal line

- **Direction of fibres;**
 - **Anterior** fibers are vertical downward.
 - **Posterior** fibers are downward and forward.

Insertion: into the tip, anterior border and posterior border and inner surface of the **coronoid process.**



Masseter muscle

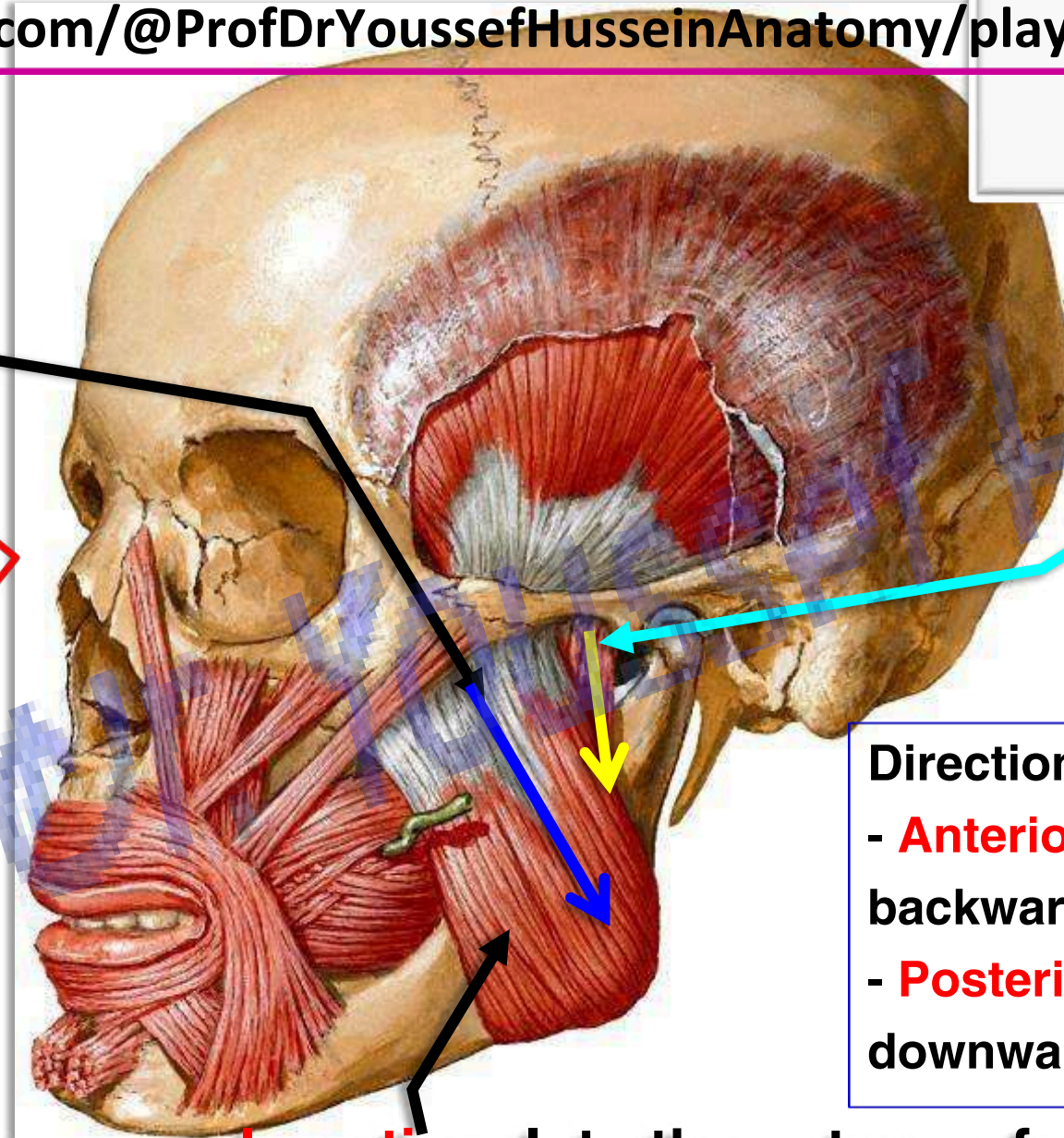
Origin: Superficial fibers from lower border zygomatic arch

Origin: Deep fibers from deep surface of zygomatic arch

Direction of the fibres:

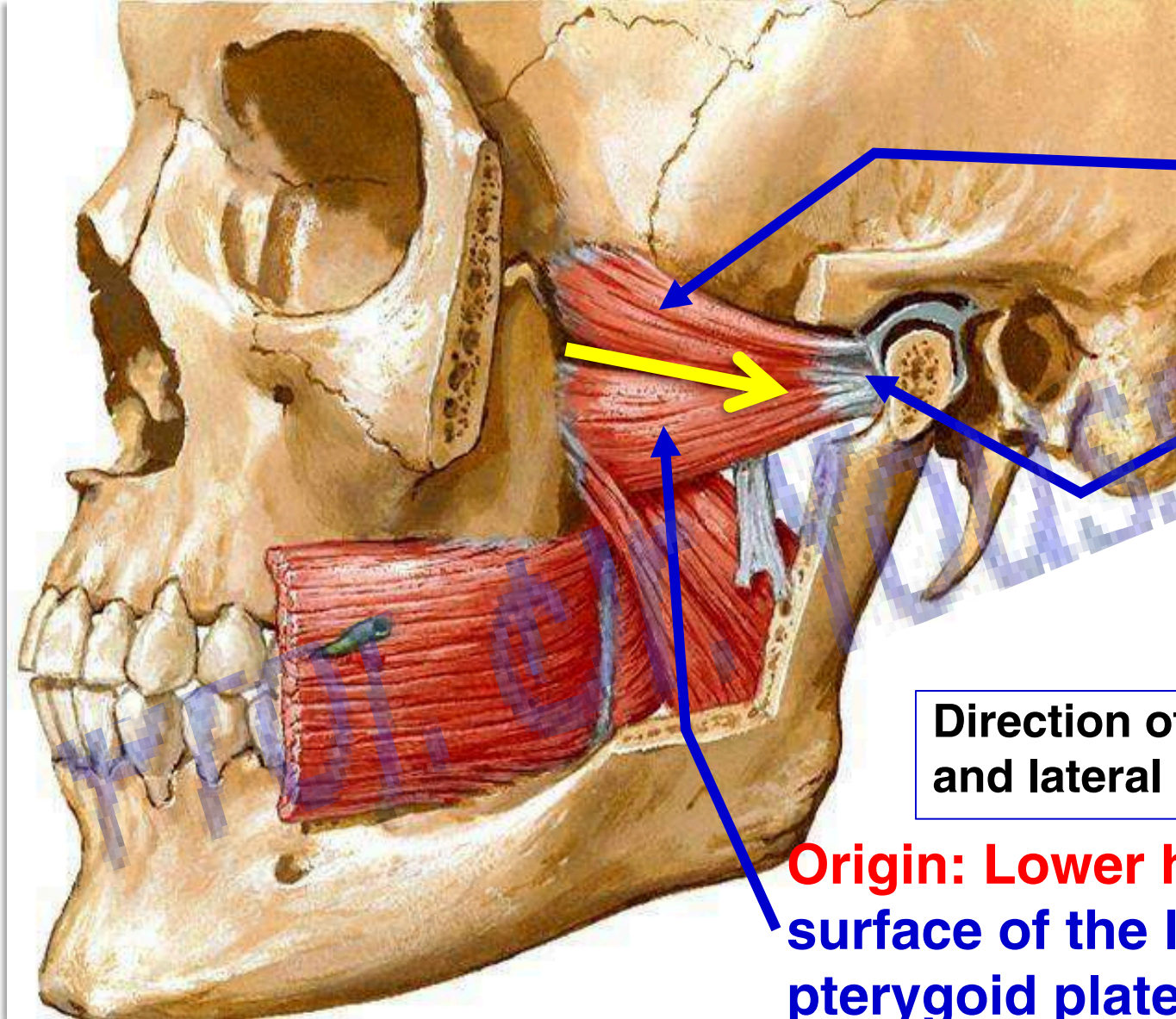
- **Anterior** directed downwards and backwards.
- **Posterior** directed vertically downwards.

Insertion: Into the outer surface of the ramus of the mandible



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Lateral Pterygoid muscle



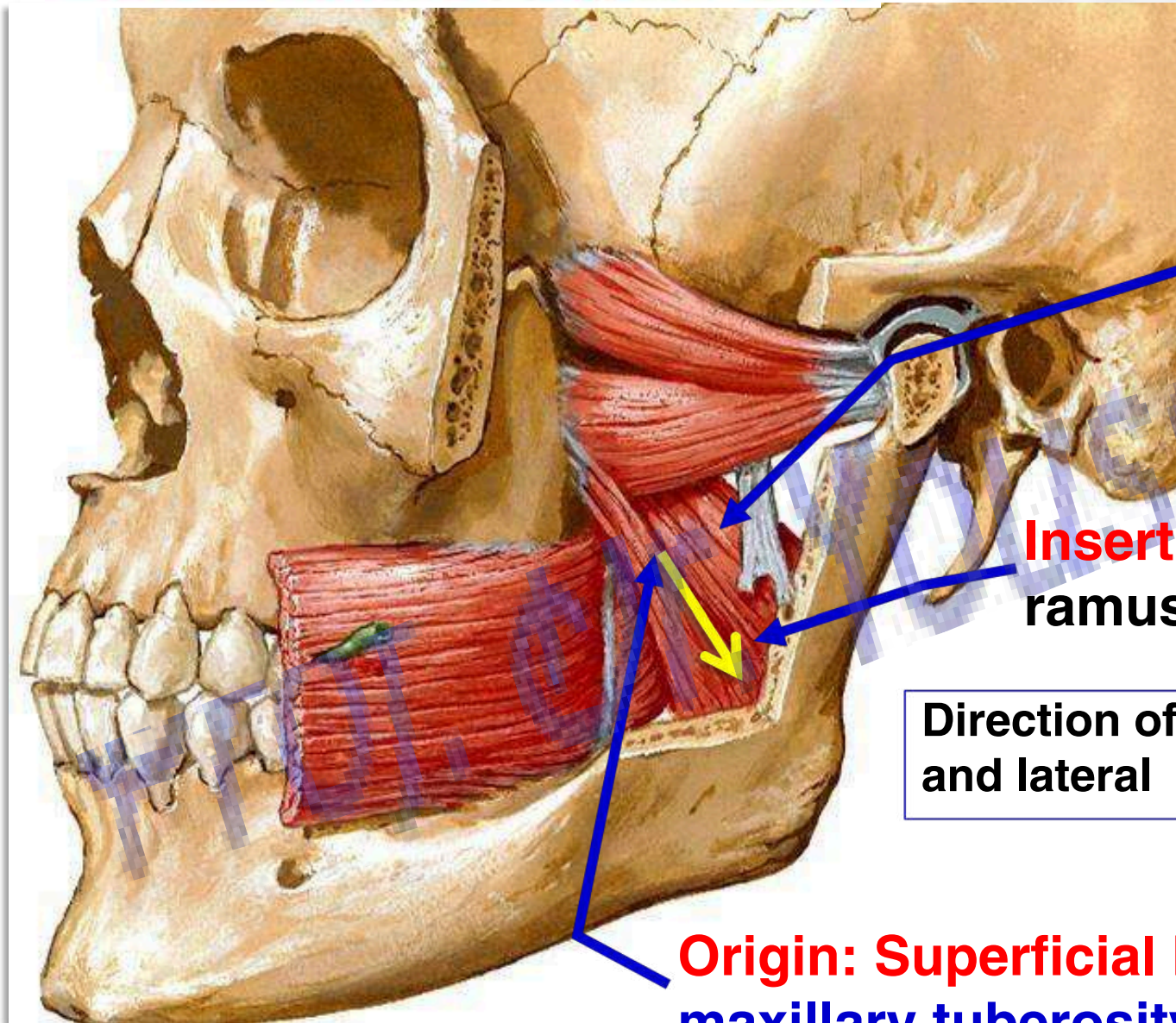
Origin: Upper head from infratemporal surface of greater wing of sphenoid

- **Insertion:** Pterygoid fovea on anterior aspect of neck of mandible.
- Capsule and articular disc of temporomandibular joint.

Direction of the fibres: horizontally backward and lateral

Origin: Lower head lateral surface of the lateral pterygoid plate

Medial Pterygoid muscle



Origin: Deep head from medial surface of lateral pterygoid plate

Insertion: Into the inner surface of the ramus and angle of the mandible

Direction of the fibres: downward, backward and lateral

Origin: Superficial head from maxillary tuberosity

Deep Relations

Lateral pterygoid

3rd part of Maxillary artery

Buccal nerve

Between 2 heads

Inferior Relations

★ 1st part of maxillary artery

2nd part of maxillary artery

Mandibular nerve
Middle meningeal artery

Otic ganglion

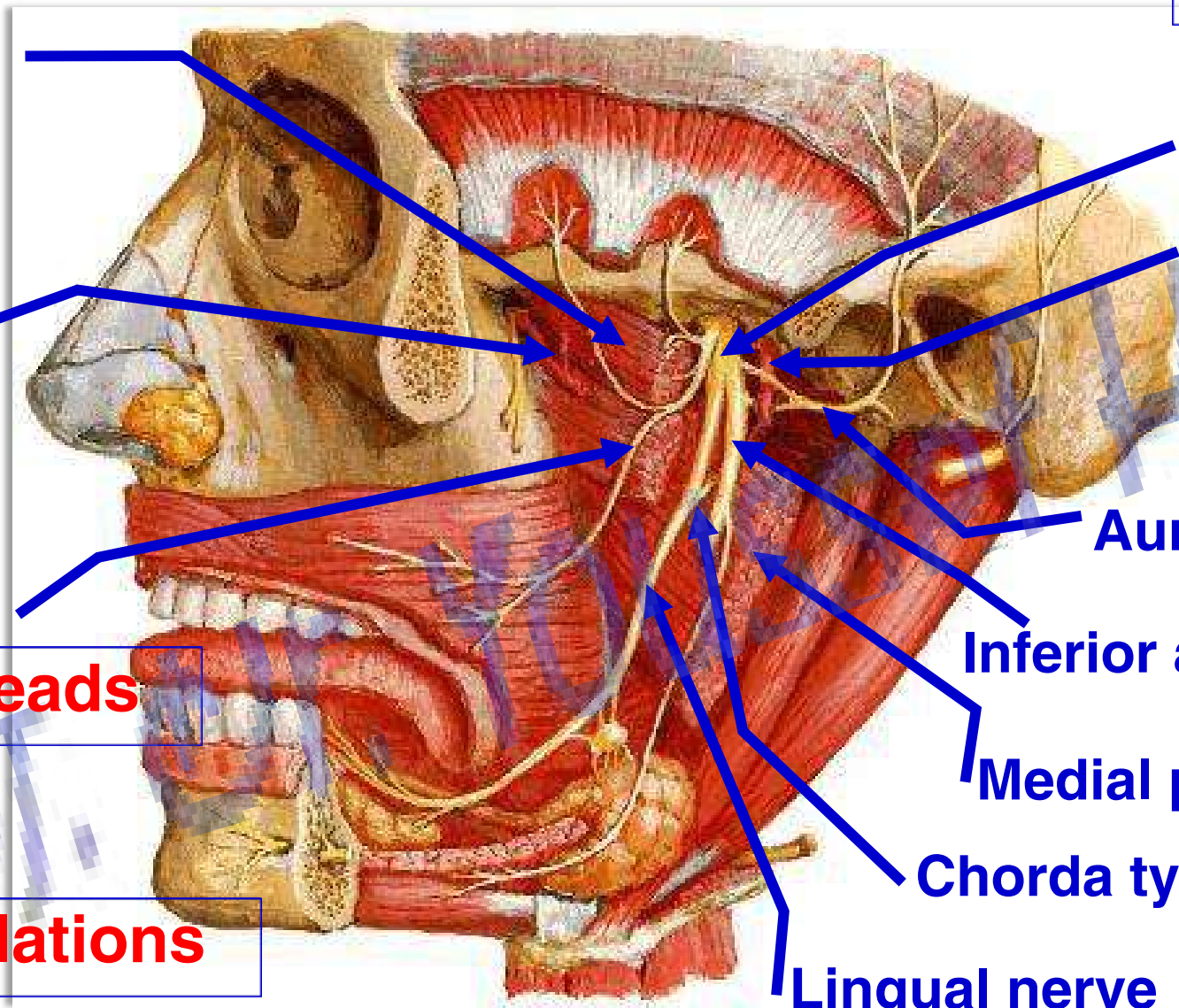
Auriculotemporal nerve

Inferior alveolar nerve ★

Medial pterygoid muscle

Chorda tympani

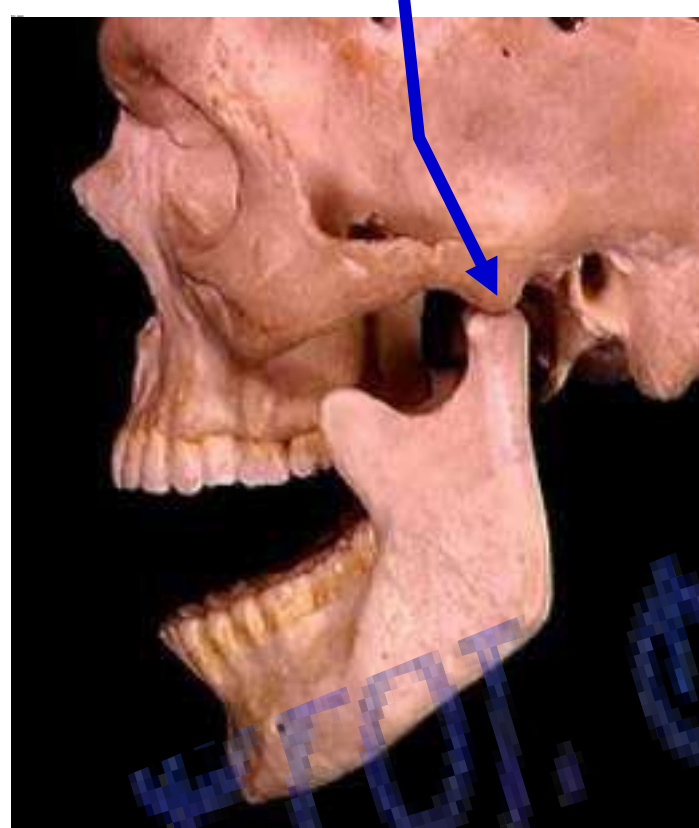
Lingual nerve ★



Type: synovial joint of **Condylloid variety**

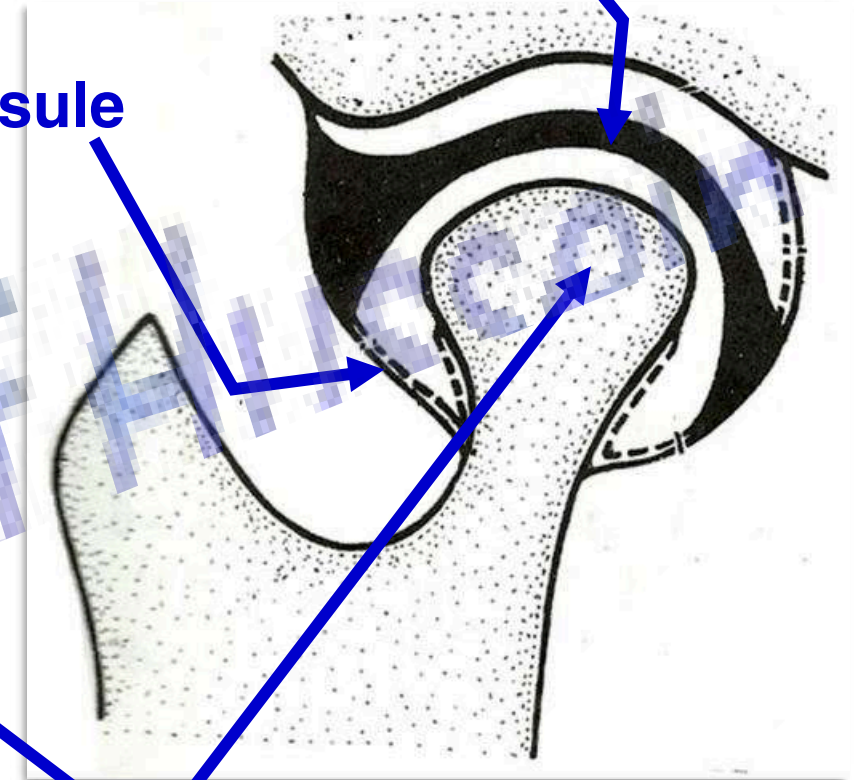
Articular tubercle

Mandibular fossa



Capsule

Articular disc



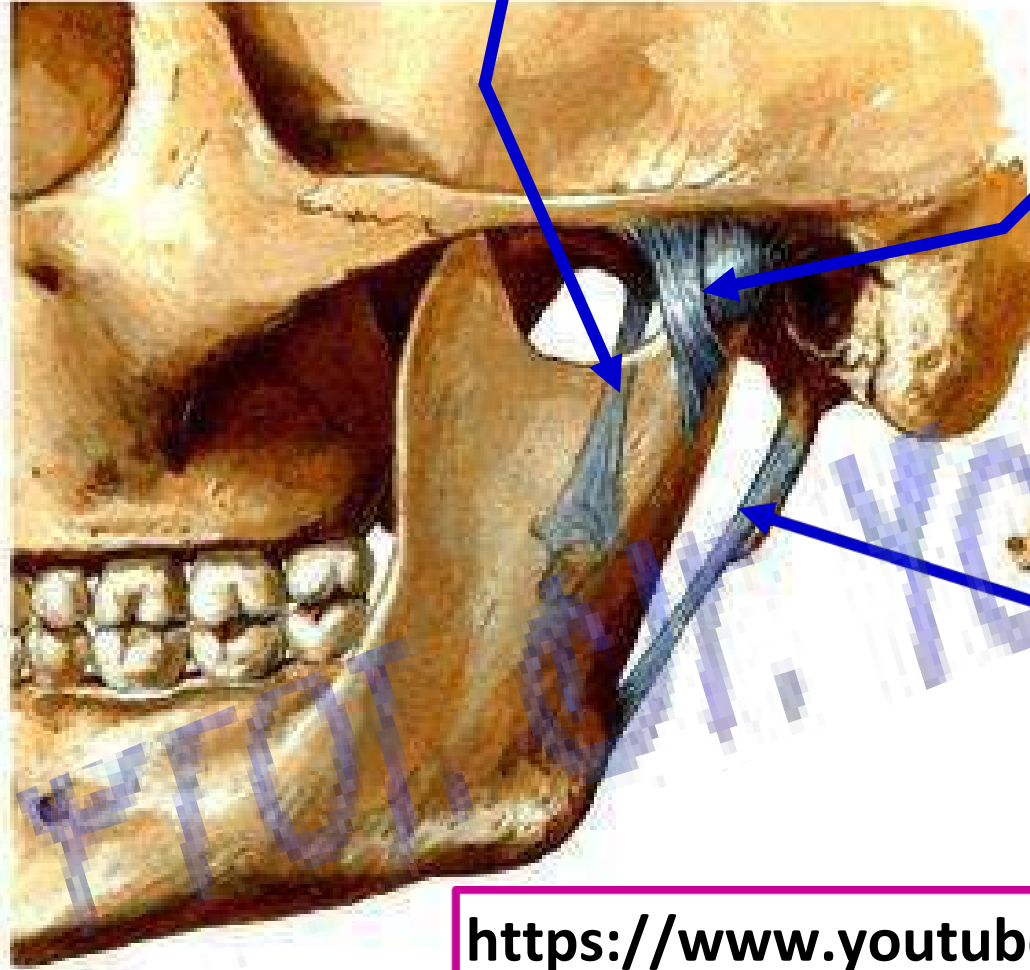
Head of mandible

dr_youssefhussein@yahoo.com

- **Articular surfaces:** a) Head (condyle) of the mandible.
b) Articular (glenoid) fossa and articular tubercle of temporal bone.
c) Articular disc divided the cavity into upper and lower parts.
- **Capsule:** attached around the articular surfaces. It is lined by synovial membrane.

2- Sphenomandibular ligament from spine of sphenoid to lingula

3- Tempromandibular ligament from articular eminence (root of zygomatic arch) to lateral side of neck of mandible

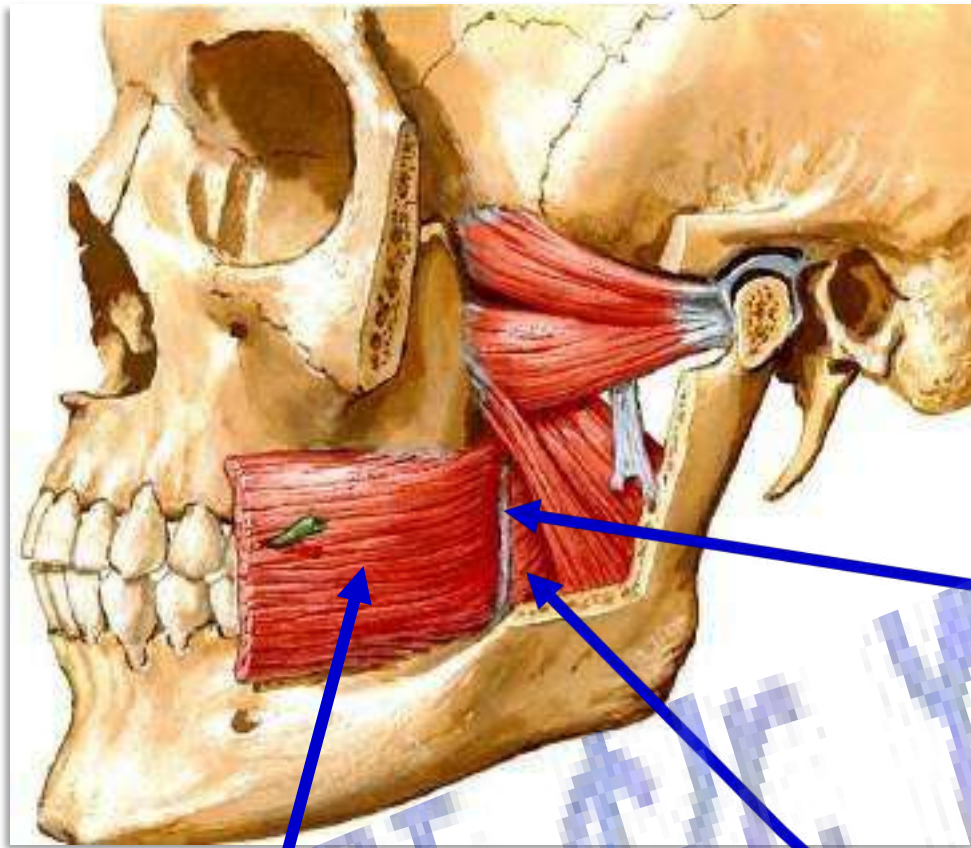


1- Stylomandibular ligament from styloid process to angle of mandible, separates parotid gland from submandibular gland

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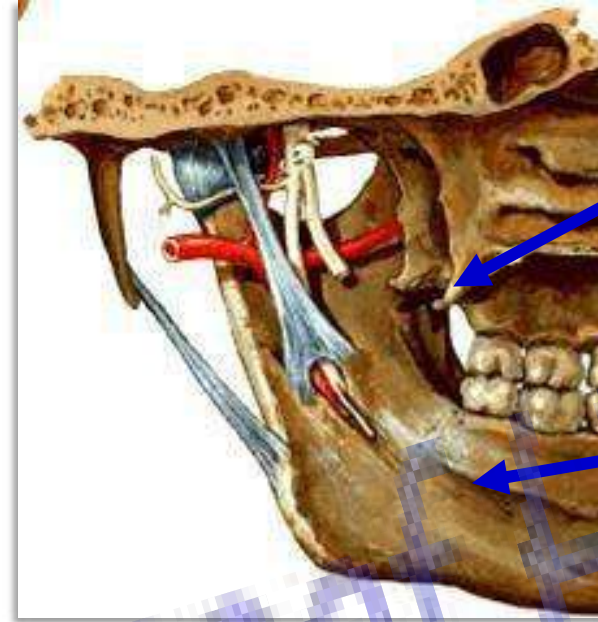
<https://www.youtube.com/@ProfDrYoussefHusseinaAnatomy/playlists>

Ligaments of temporomandibular joint



Buccinator

Superior constrictor muscle of pharynx



Pterygoid hamulus

Mylohyoid line

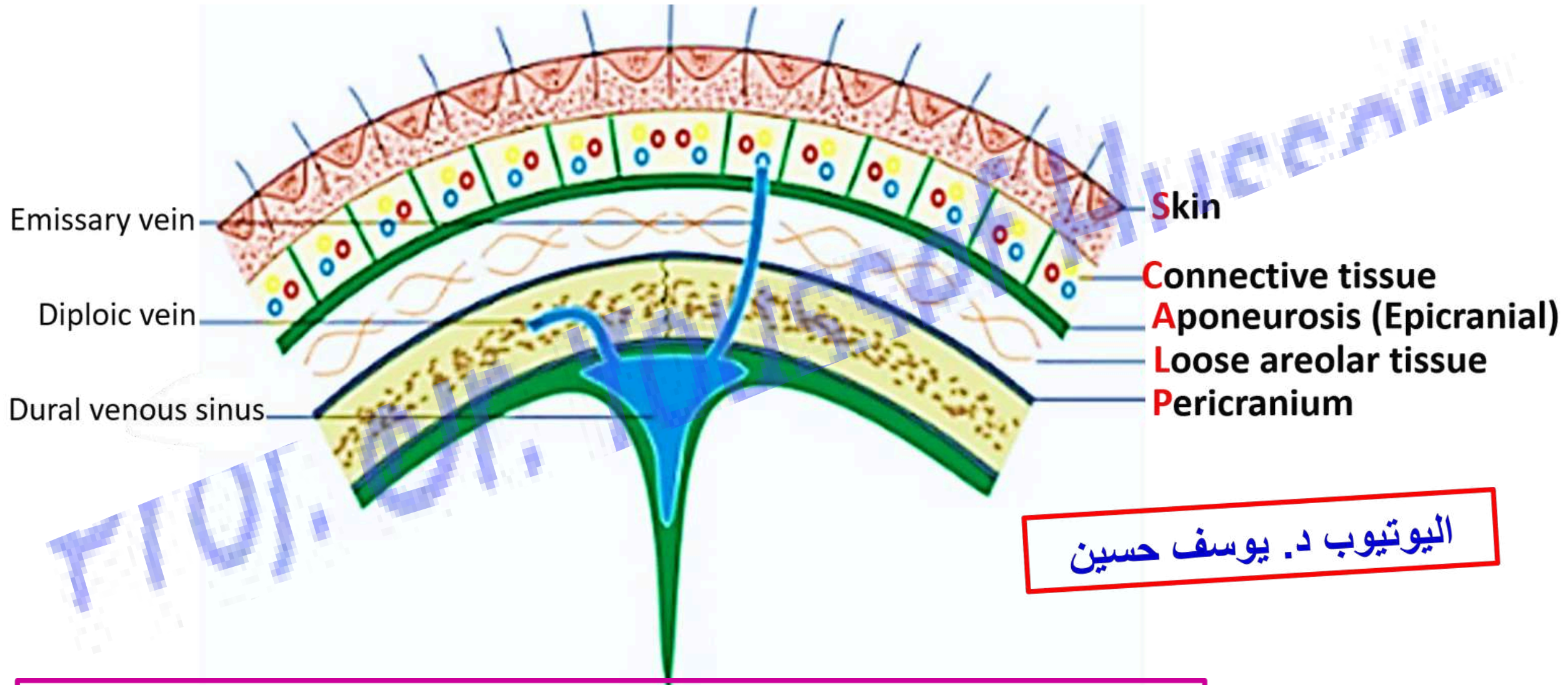
4- Pterygomandibular ligament: extends from **pterygoid hamulus** to the **posterior end of mylohyoid line** of mandible.

-It gives originto buccinator and superior constrictor muscle of the pharynx.

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Ligaments of temporomandibular joint

Layers of the scalp : 5 layers (S.C.A.L.P.)



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Epicranial aponeurosis

Occipitofrontalis Muscle

Frontal belly

Occipital belly

**Skin of the eye
brow and root
of the nose**

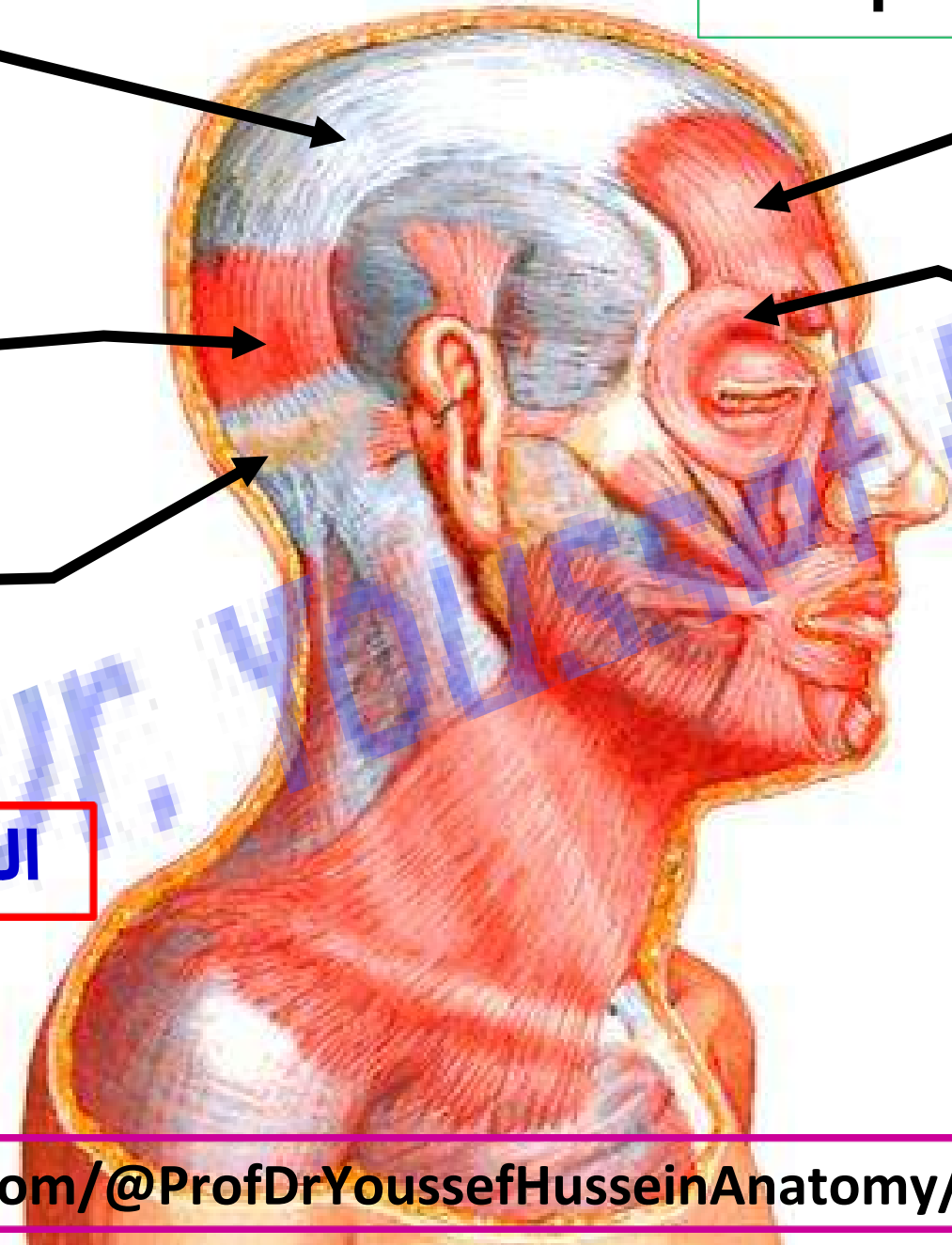
No bony attachment

**Nerve supply is facial
nerve (2nd pharyngeal
arch)**

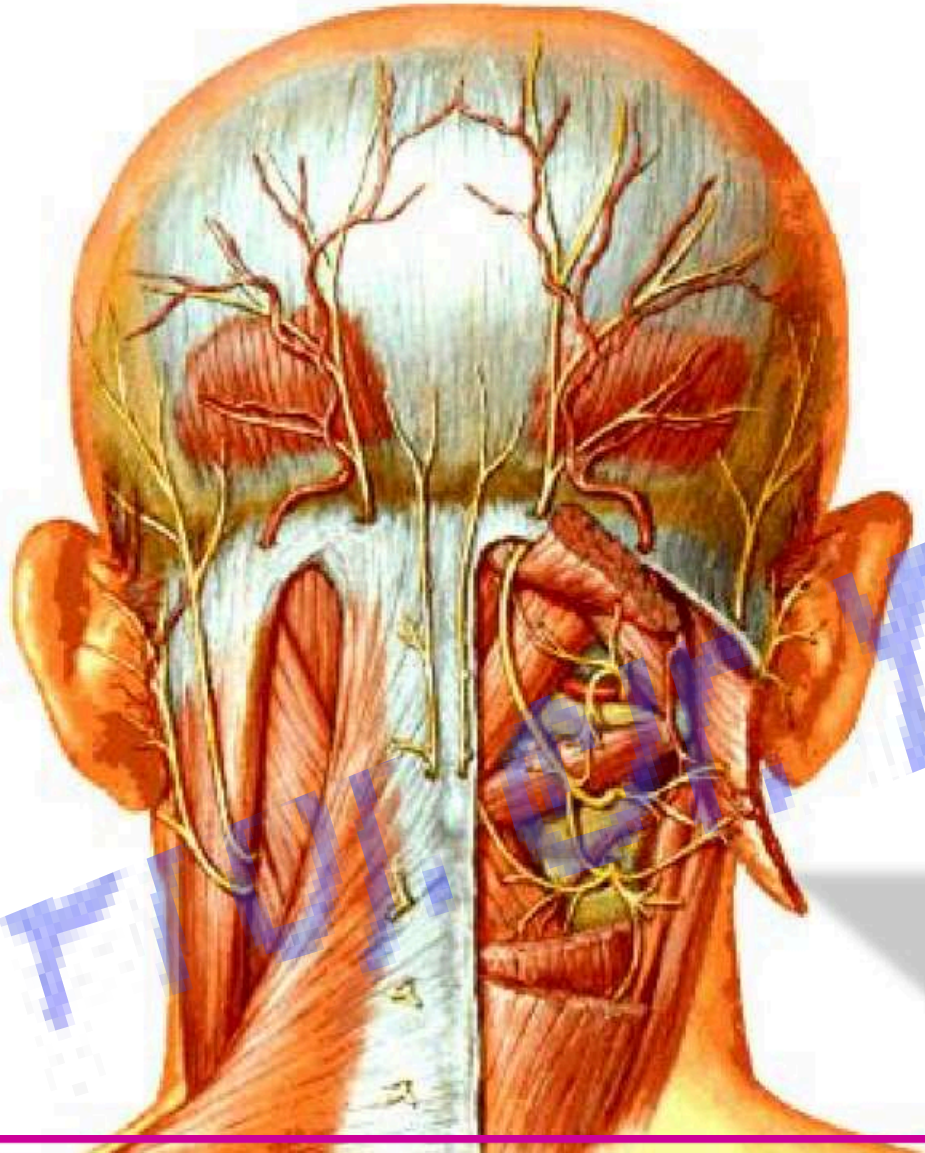
**Highest nuchal
line**

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<https://www.youtube.com/@ProfDrYoussefHusseinAnatomy/playlists>



Occipital bellies



Frontal bellies



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diffuse

- The first 3 layers attached together and move on the underlying layer.

- Bleeding under the first 3 layers forms **hematoma** extending throughout the scalp and reach the upper eye lids (**Blackeye**).

- Fracture of the skull bone produces a localized hematoma because the periosteum is firmly attached to the sutures.



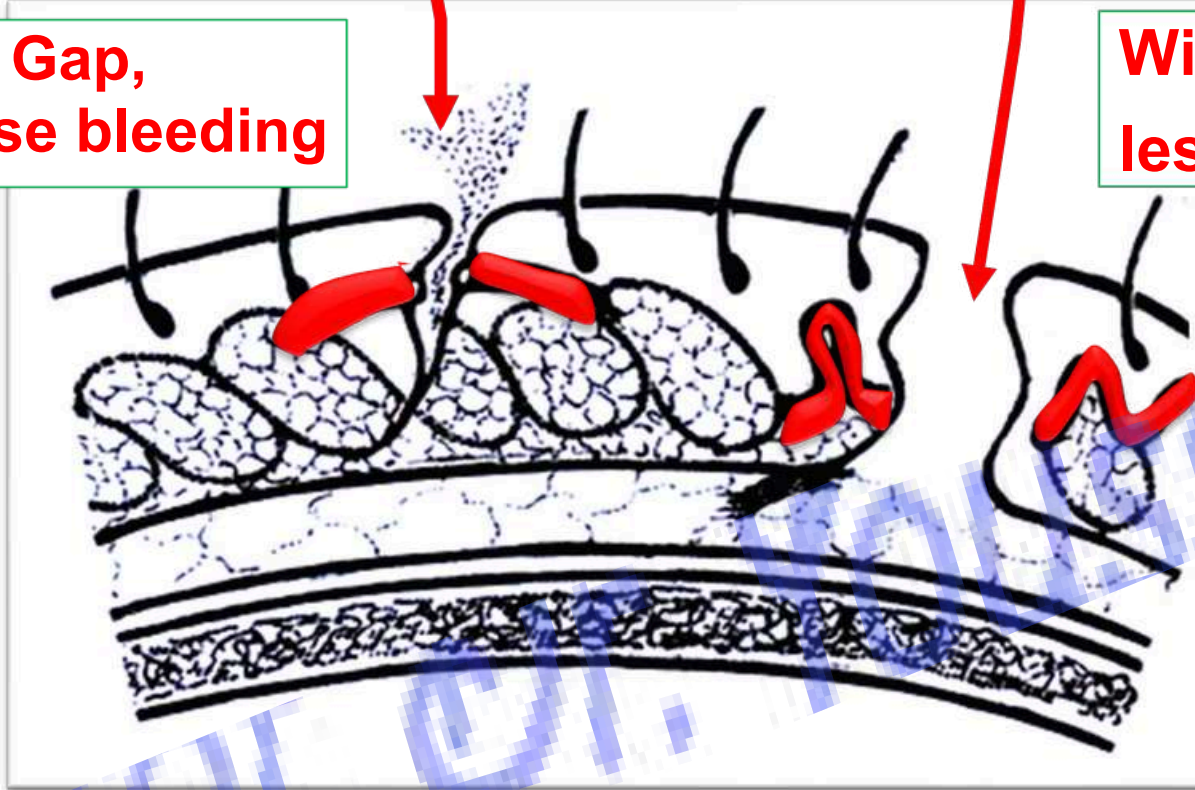
Cut wound in subcutaneous area

Cut wound involving epicranial aponeurosis



Small Gap,
Profuse bleeding

Wide Gap,
less bleeding



Horizontal Cut wound of The front of scalp leading to Wide Gap due to retraction of occipitofrontalis muscle

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<https://www.youtube.com/@ProfDrYoussefHusseinAnatomy/playlists>

Nerves in front auricle

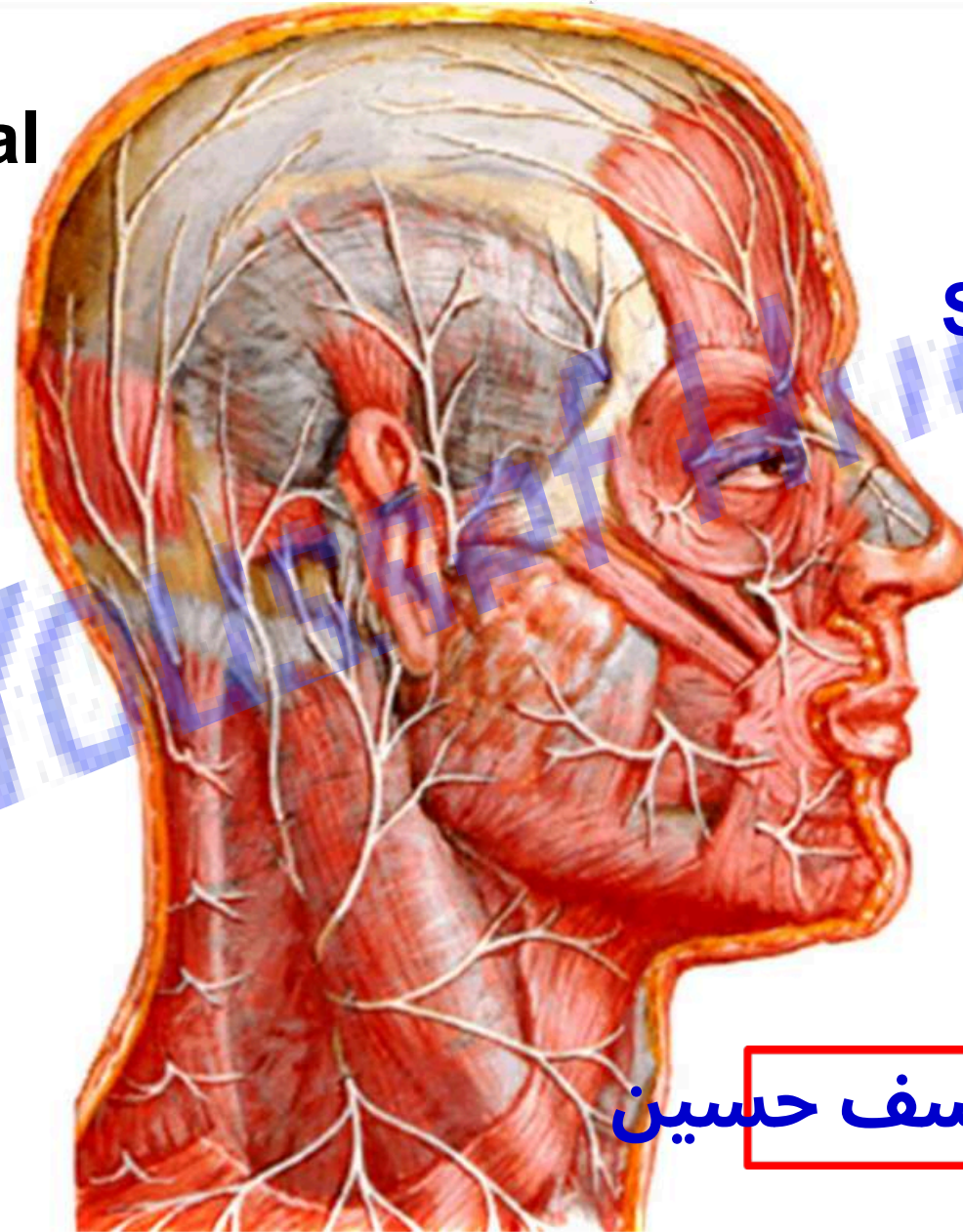
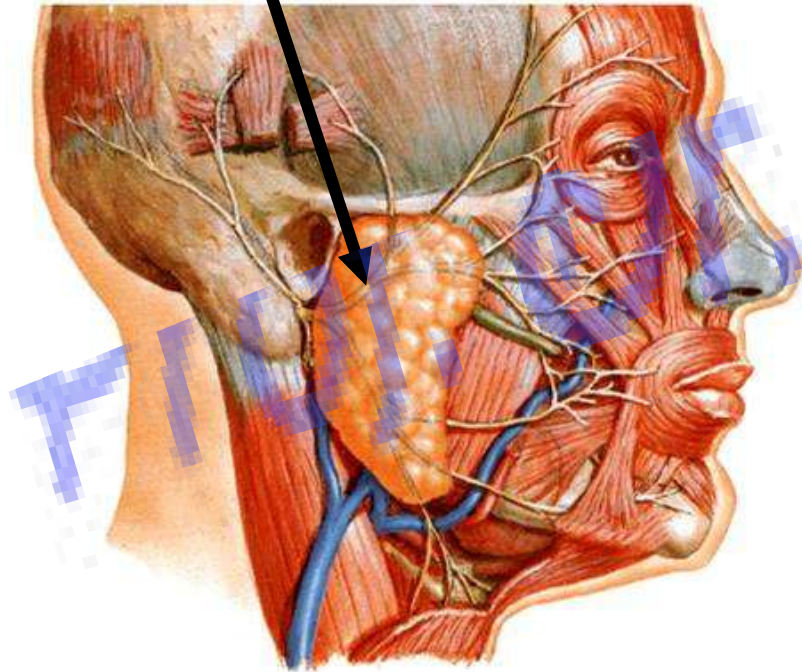
**Auriculotemporal
nerve S**

**Temporal nerve
M**

Zygomaticotemporal nerve S

**Supraorbital
nerve S**

**Supratrochlear
nerve S**

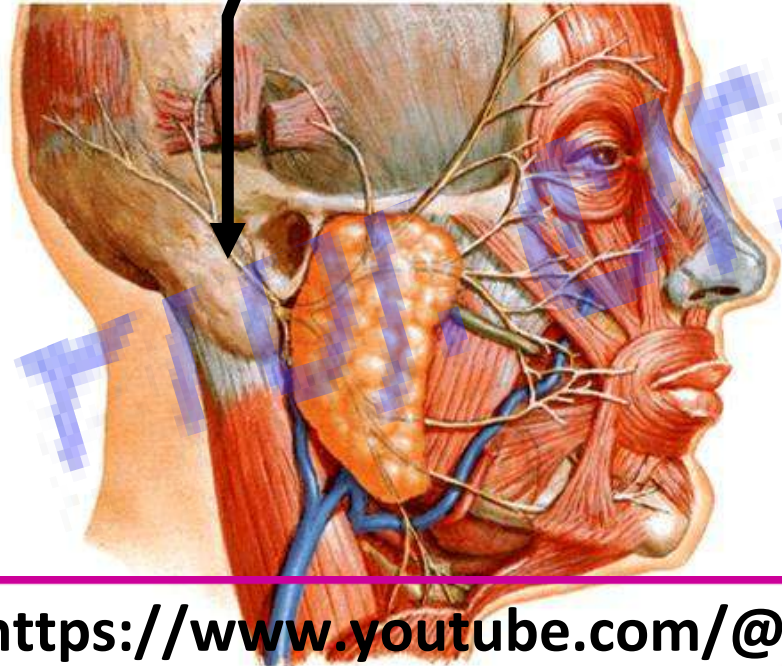


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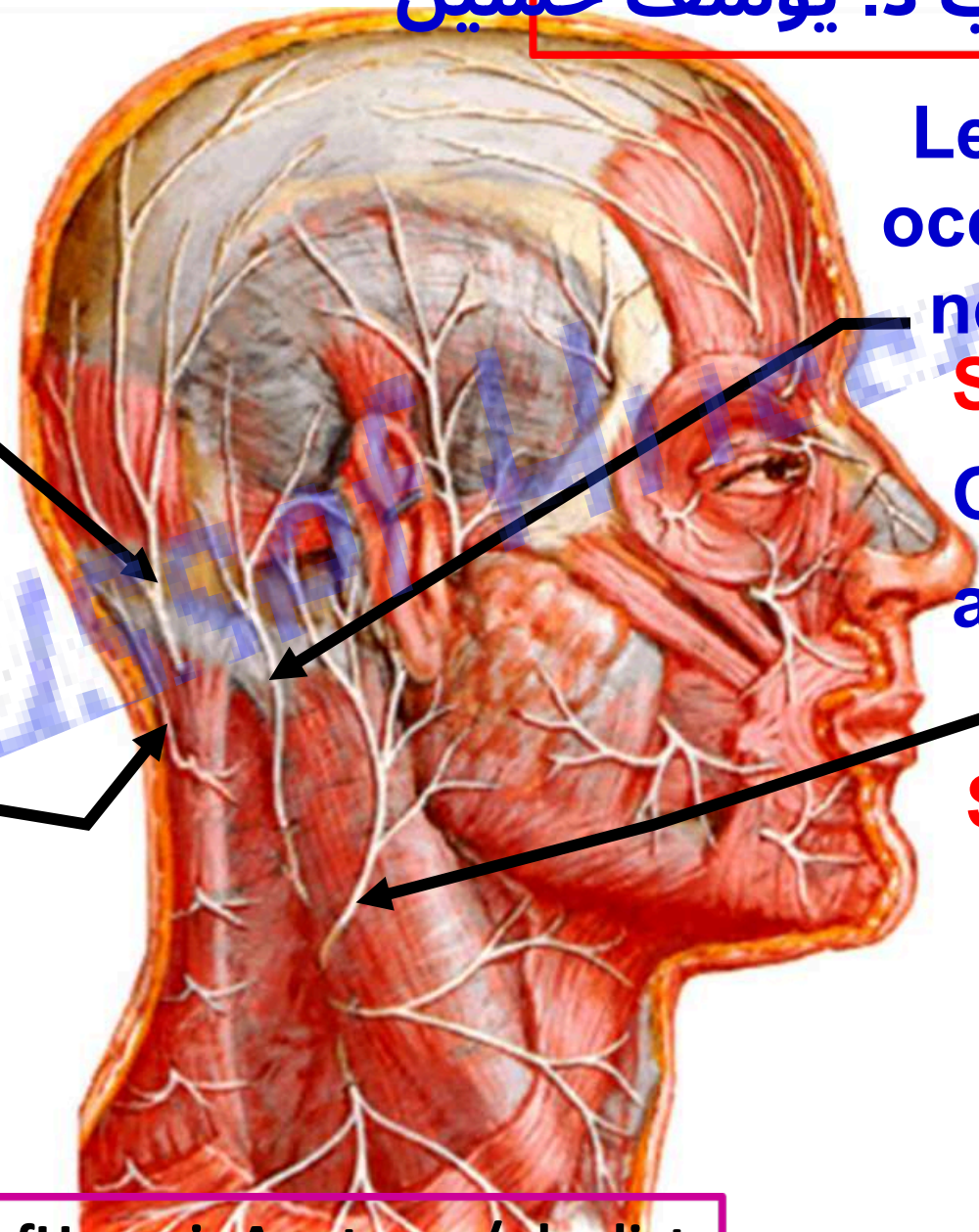
Nerves behind auricle

S=C2 Greater occipital nerve

Posterior auricular nerve
M

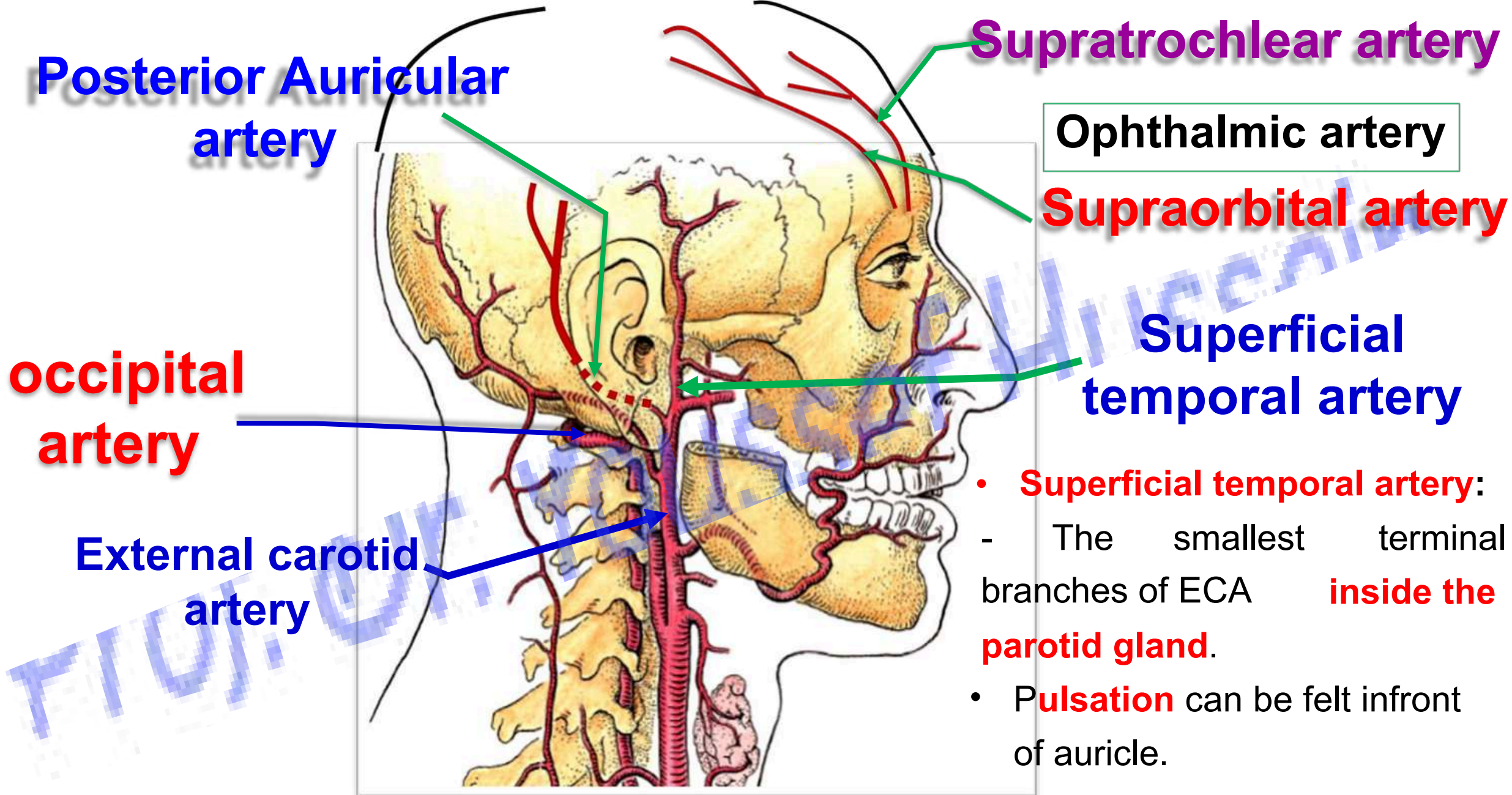


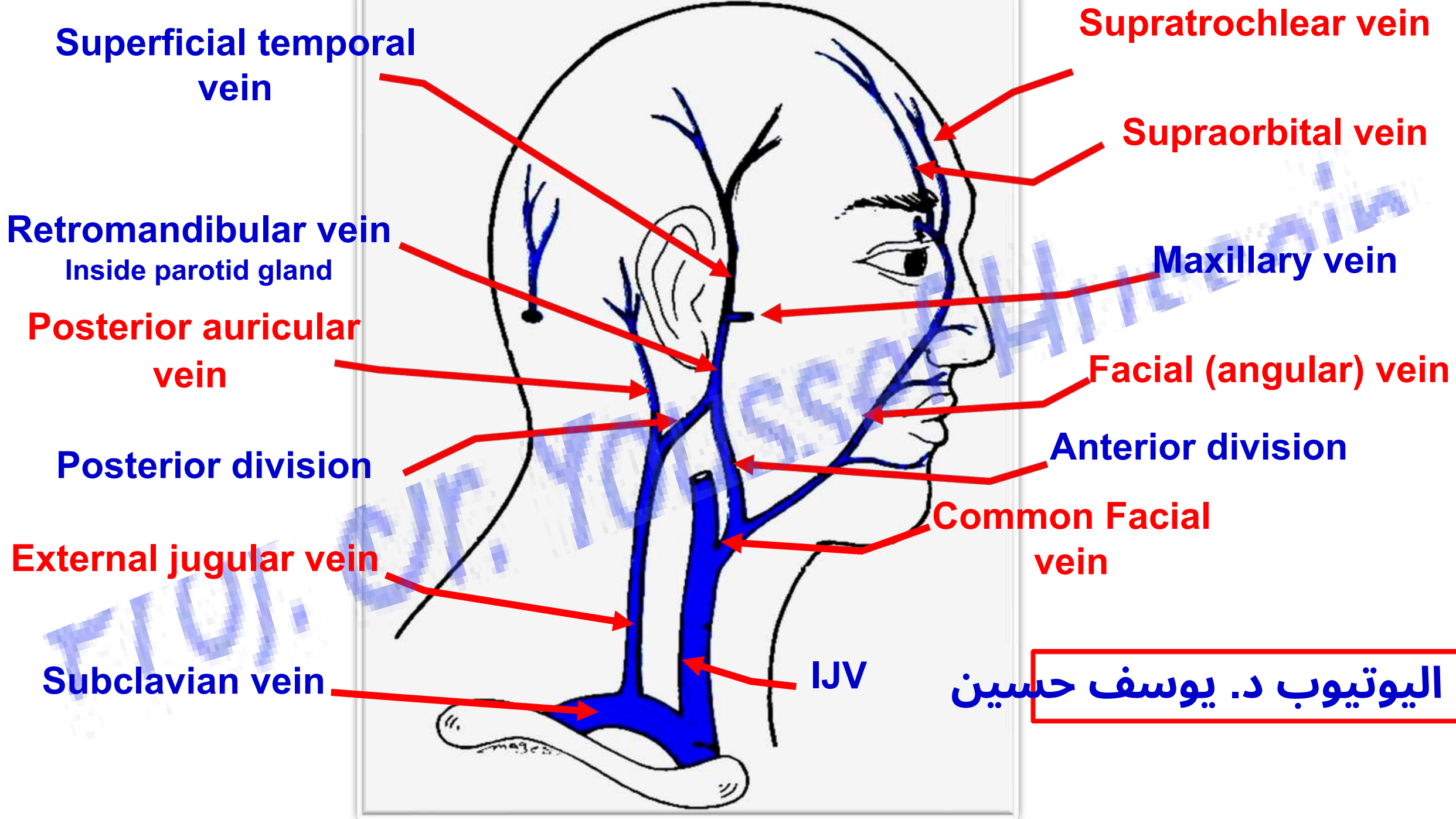
3rd occipital nerve
S=C3



Lesser occipital nerve
S=C2

Great auricular nerve
S=C2&3





Superficial temporal vein

Supratrochlear vein

Supraorbital vein

Retromandibular vein
Inside parotid gland

Maxillary vein

Posterior auricular vein

Facial (angular) vein

Posterior division

Anterior division

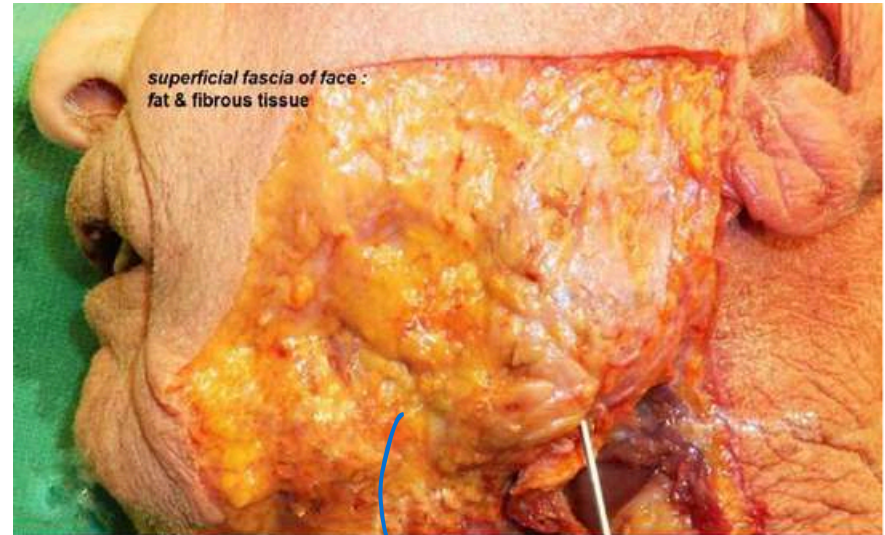
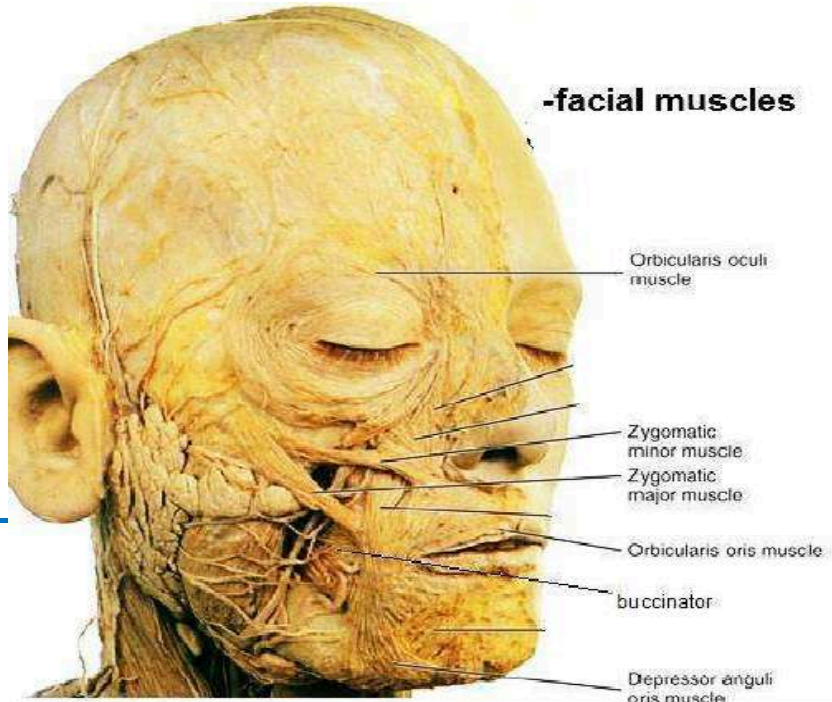
External jugular vein

Common Facial vein

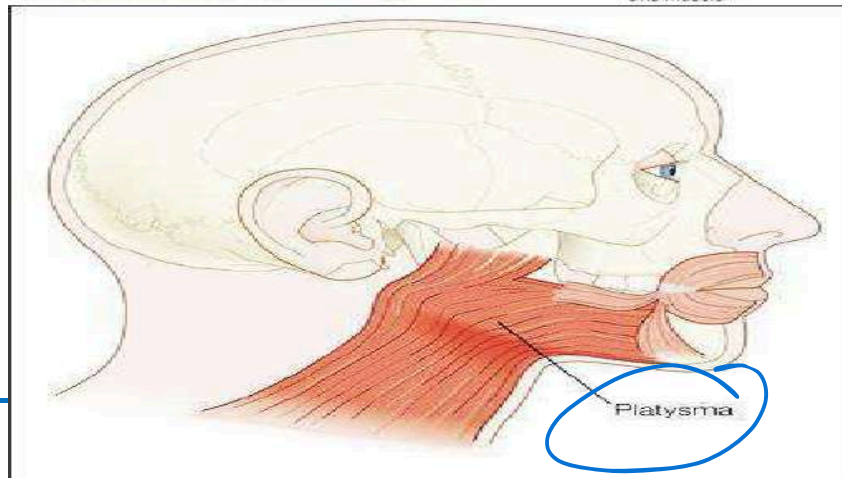
Subclavian vein

IJV

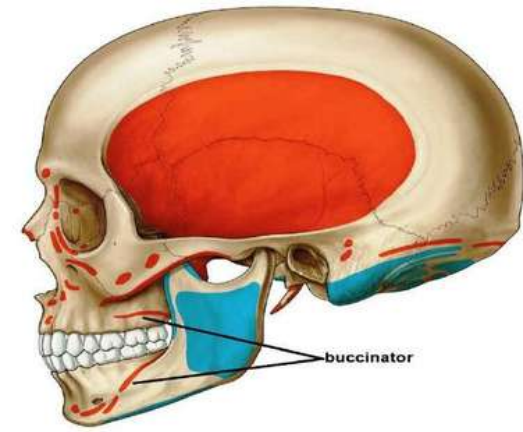
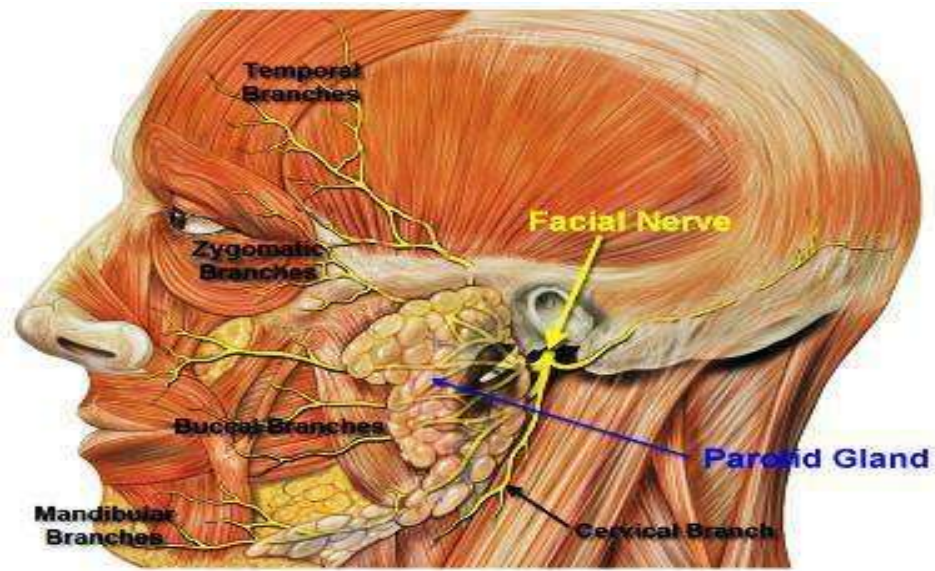
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superficial fascia

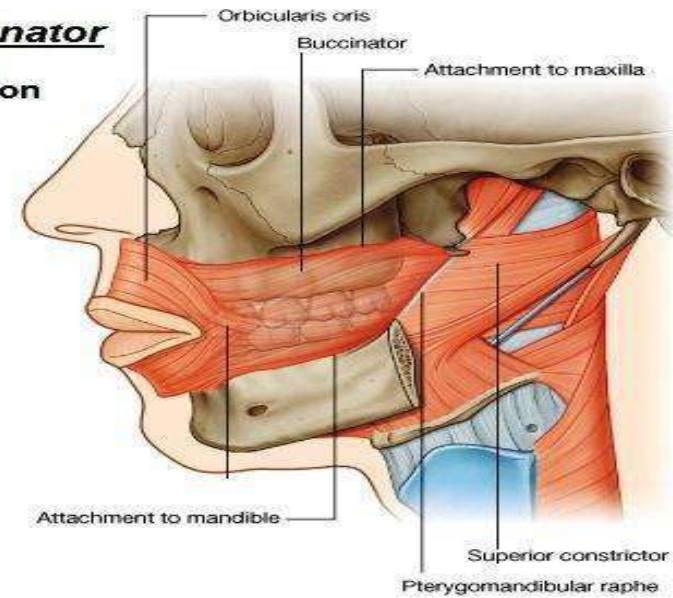


Small muscles e.g.
zygomaticus major
zygomaticus minor
depressor anguli
oris



Buccinator N.S: buccal br. of facial n.

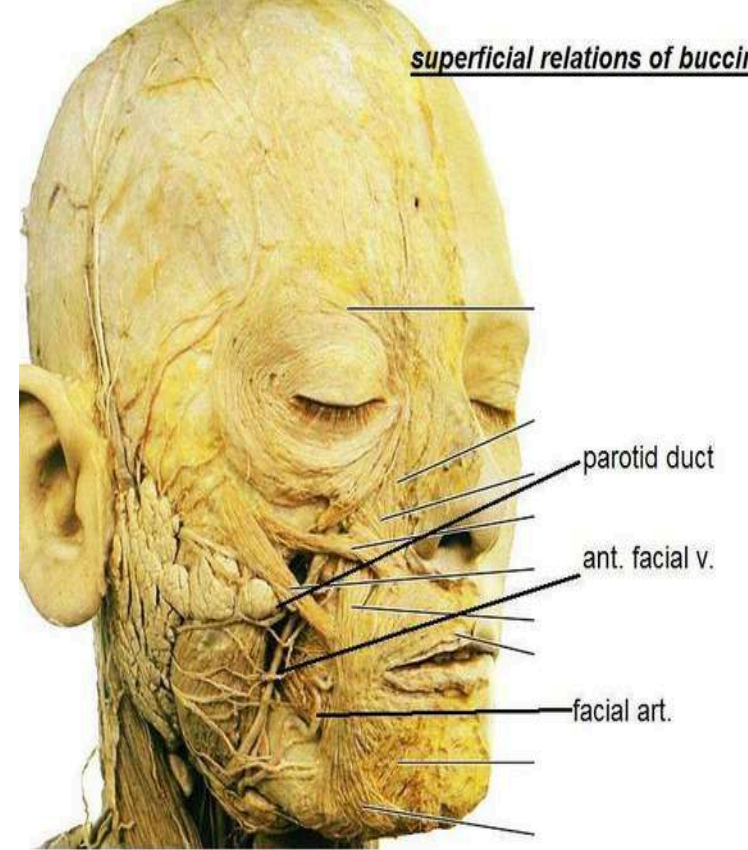
buccinator
-origin
-insertion



Muscles Buccinator: muscle of cheek



Orbicularis oris: sphincter of mouth



crossed by
facial artery
ant facial vein
pierced by
parotid duct

structure

Muscles

Orbicularis Oculi: sphincter of eye
parts, attachments & action:

Orbital part:

O: medial palpebral lig. & the near bone

I: the fibres form complete ellipse around orbital opening to insert in the medial palpebral

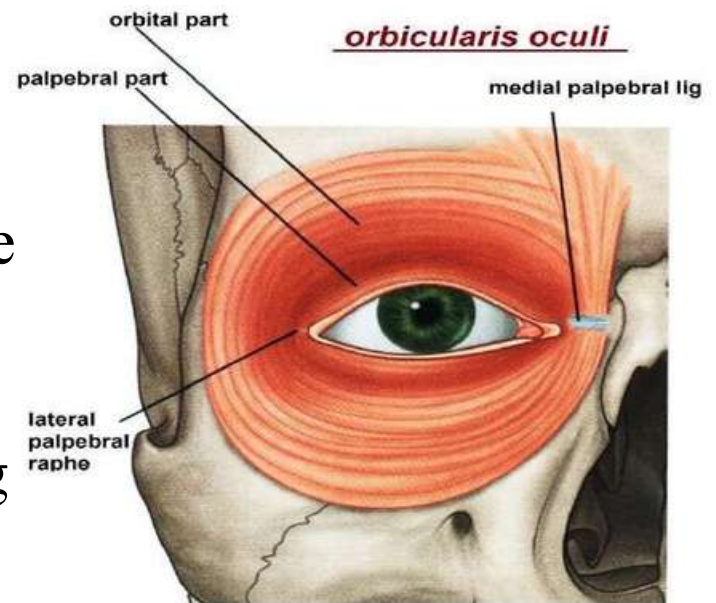
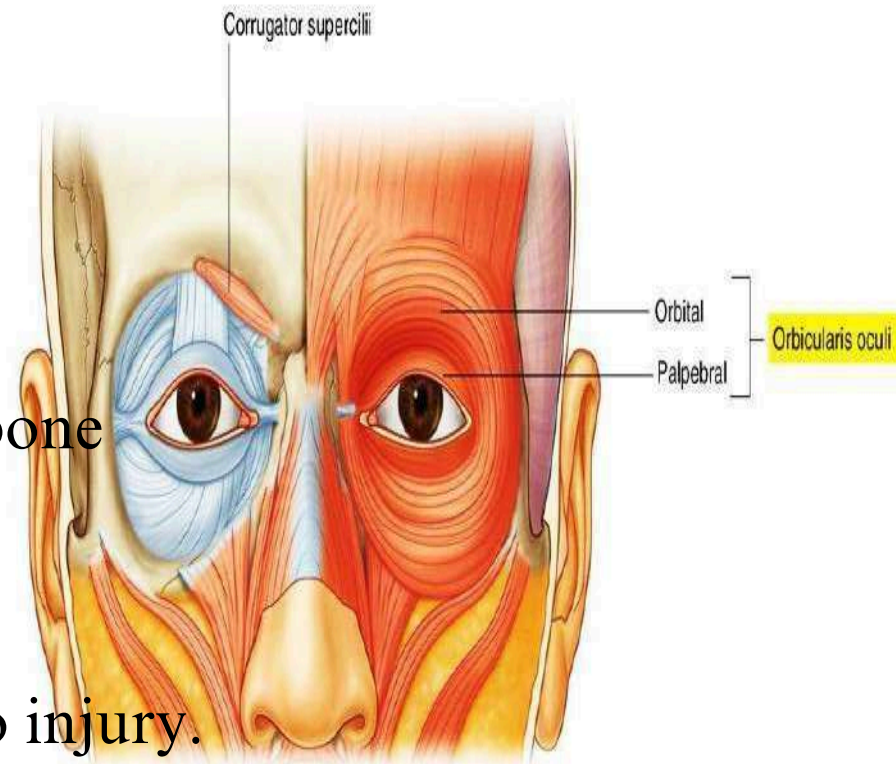
A: light closure of eye in exposure to injury.

Palpebral part:

O: medial palpebral lig.

I: the fibers curve within the eye lids then the upper & lower fiber decussate at lateral angle of eye forming the lateral palpebral raphe

A: light closure of eye in sleep & blinking



structure

Muscles

orbicularis oculi

parts, attachments & action:

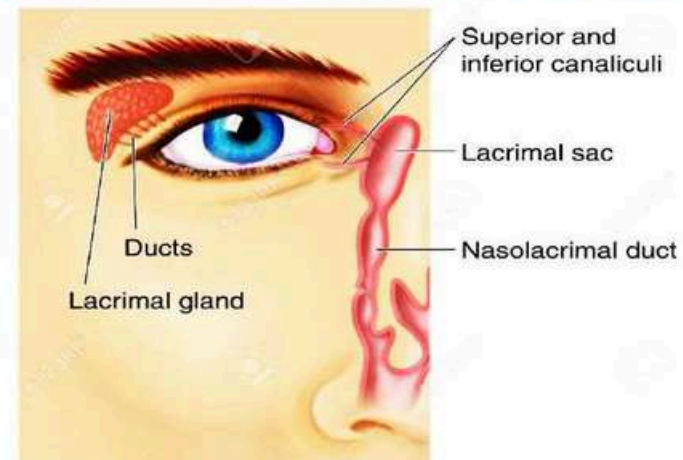
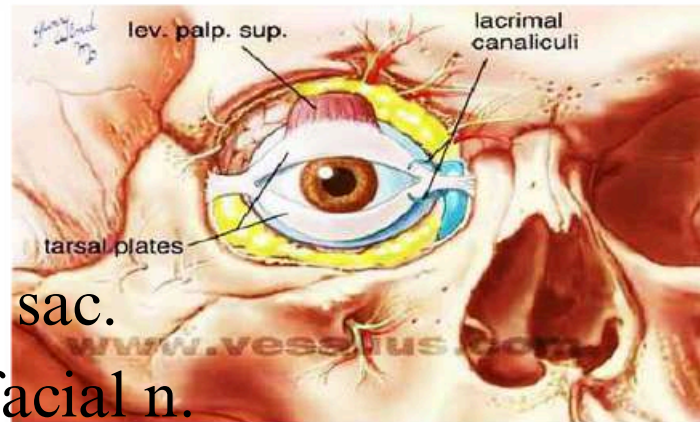
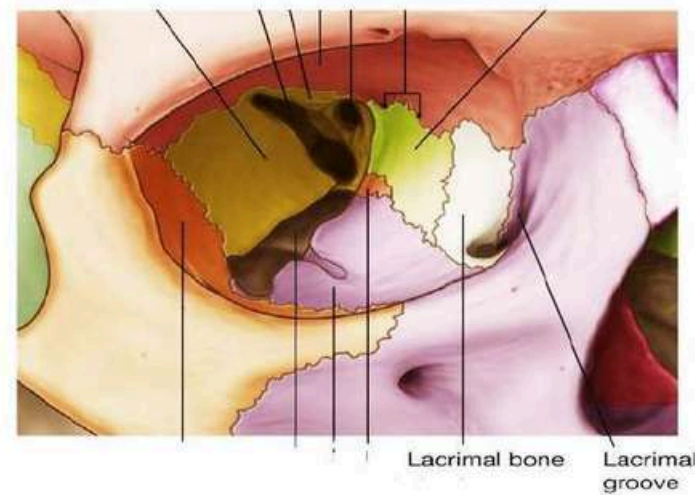
Lacrimal part:

O: post. lacrimal crest &
fascia covering lacrimal sac.

I : to tarsi of eyelids.

A: drainage of tears by dilating the lacrimal sac.

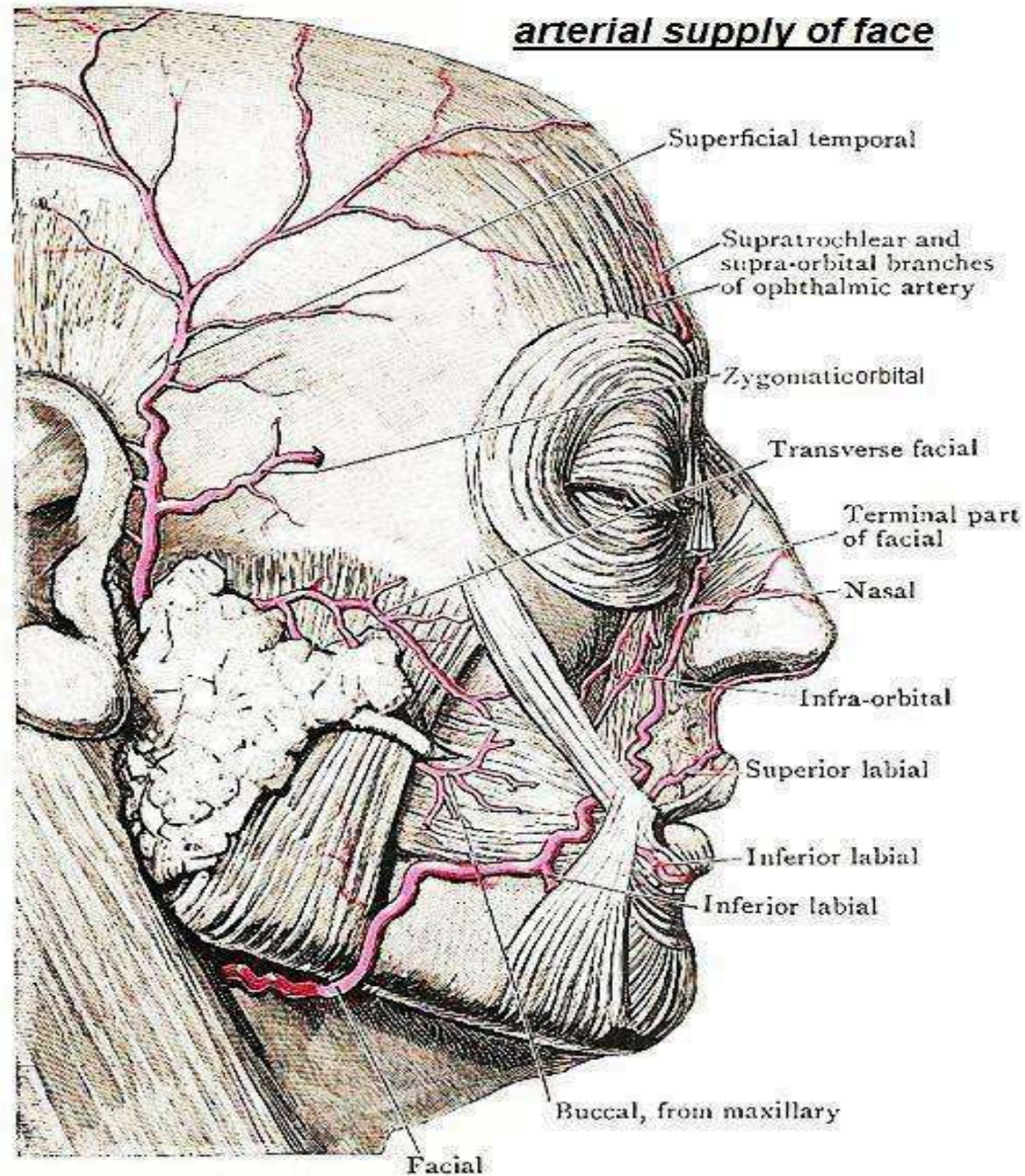
N.S : temporal and zygomatic branches of facial n.



internal carotid art: gives
ophthalmic art. Which gives
-supratrochlear art. -
supraorbital art.

External carotid art: gives **superficial
temporal art.** Which gives transverse
facial art. **maxillary art.:** which gives
infra orbital art. inferior alveolar art.
Giving mental art. buccal art. **facial
art. (main)**

facial art.

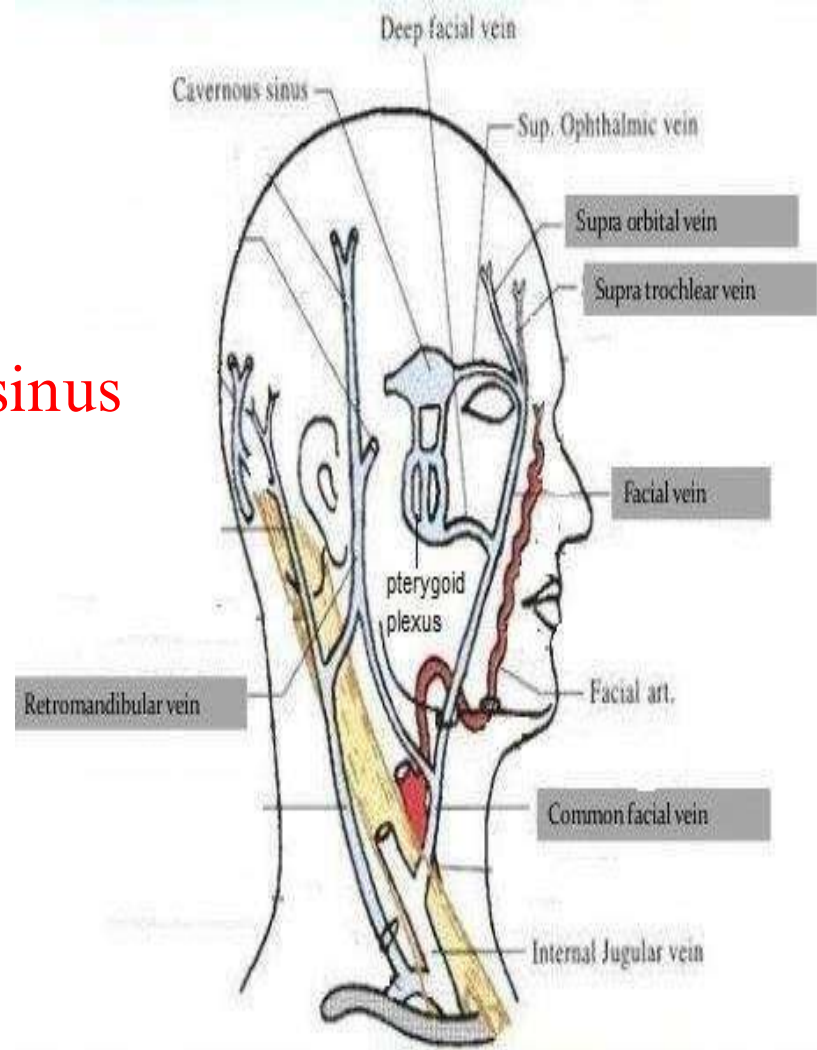
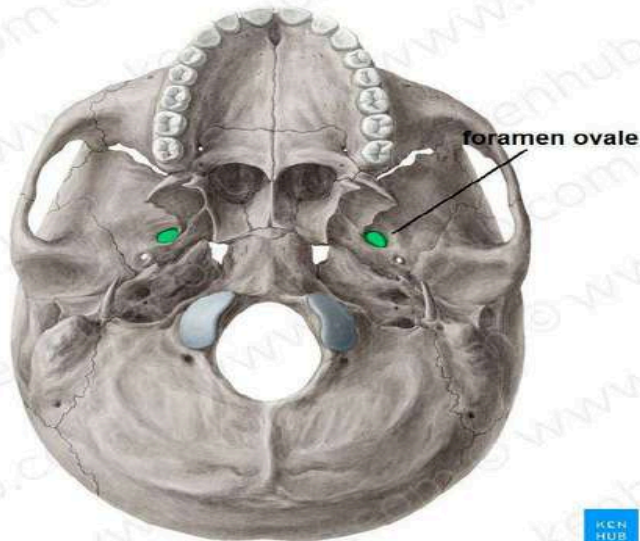


Ant. facial v.

Connections:

ant. facial v. is connected to **cavernous sinus** by 2 valveless veins

- 1-superior ophthalmic v.
- 2-deep facial v. to pterygoid plexus of veins to cavernous sinus through emissary v. pass through foramen ovale

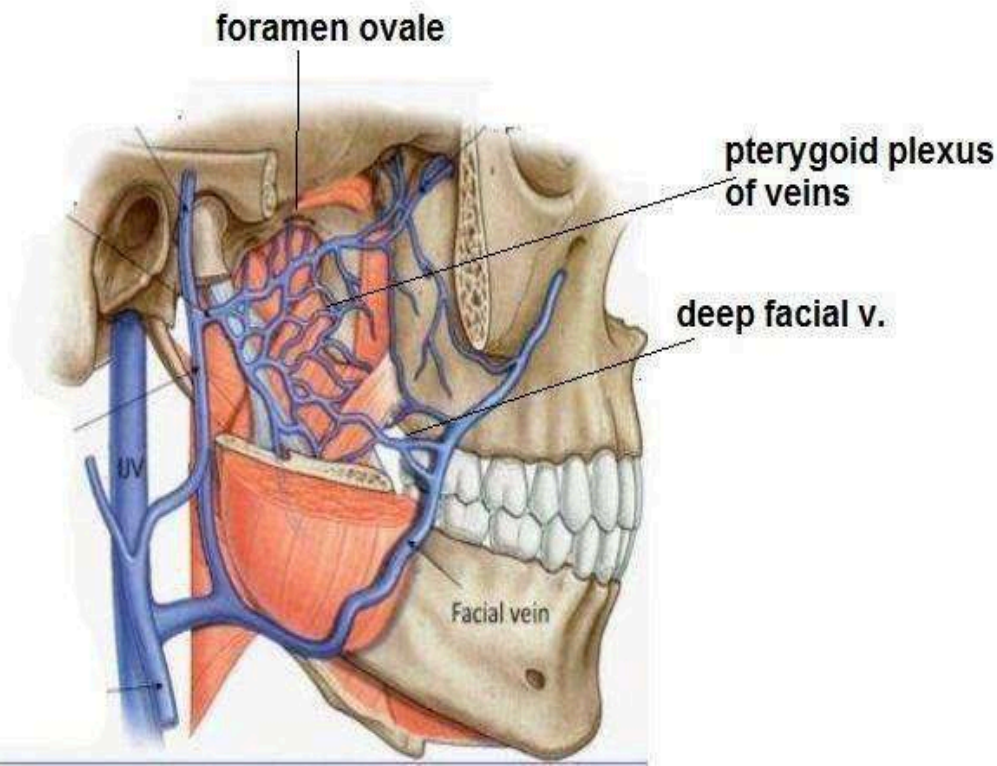


Applied anatomy:

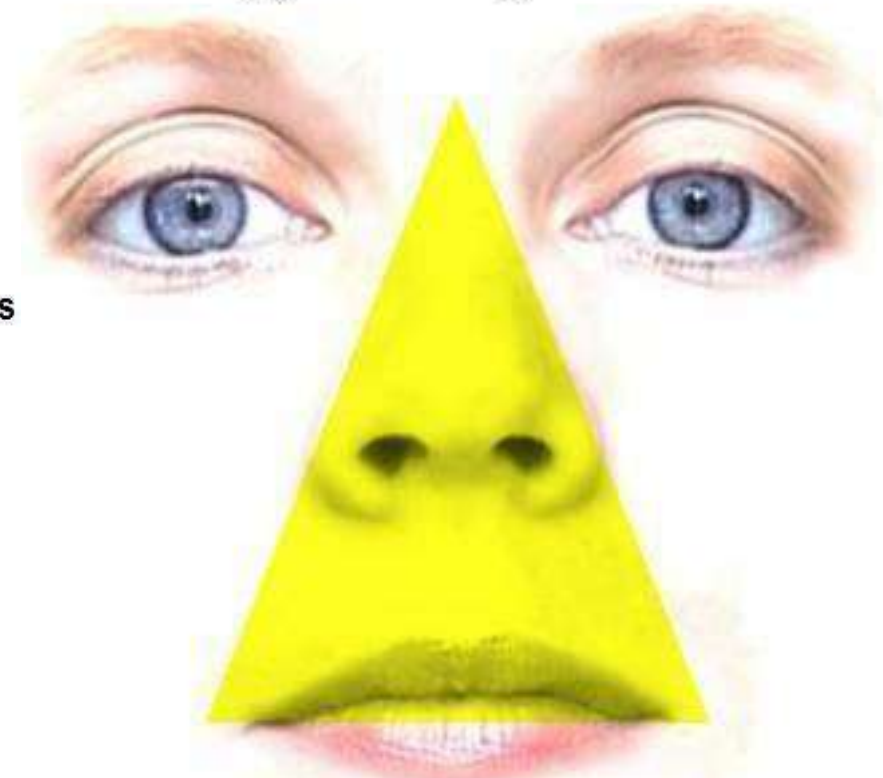
dangerous area of face is the triangular area around nose & upper lip as infection pass from ant. facial v. to cavernous sinus by the 2 valveless veins:

1-superior ophthalmic v.

2-deep facial v.....



Danger Triangle of Face



<http://medchrome.com>