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Parotid Gland

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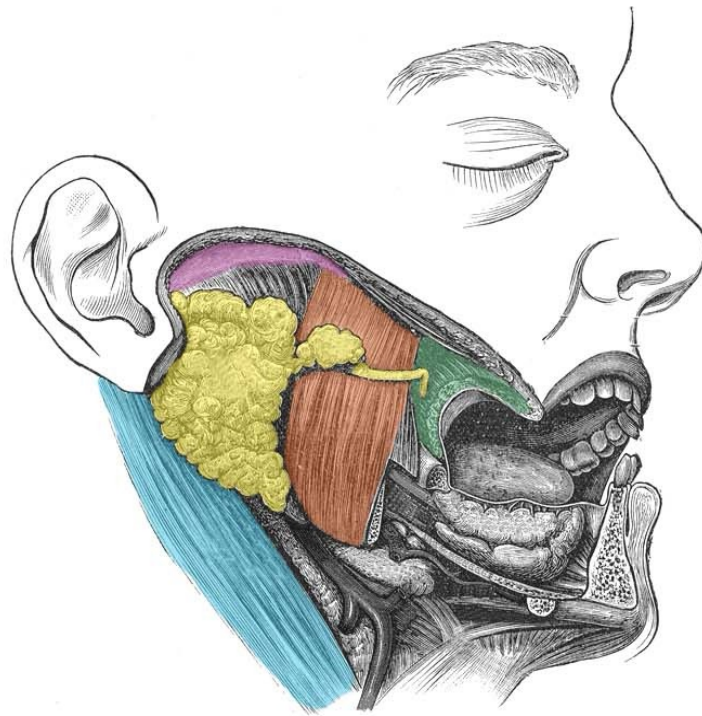
Para = near






Otis = ear

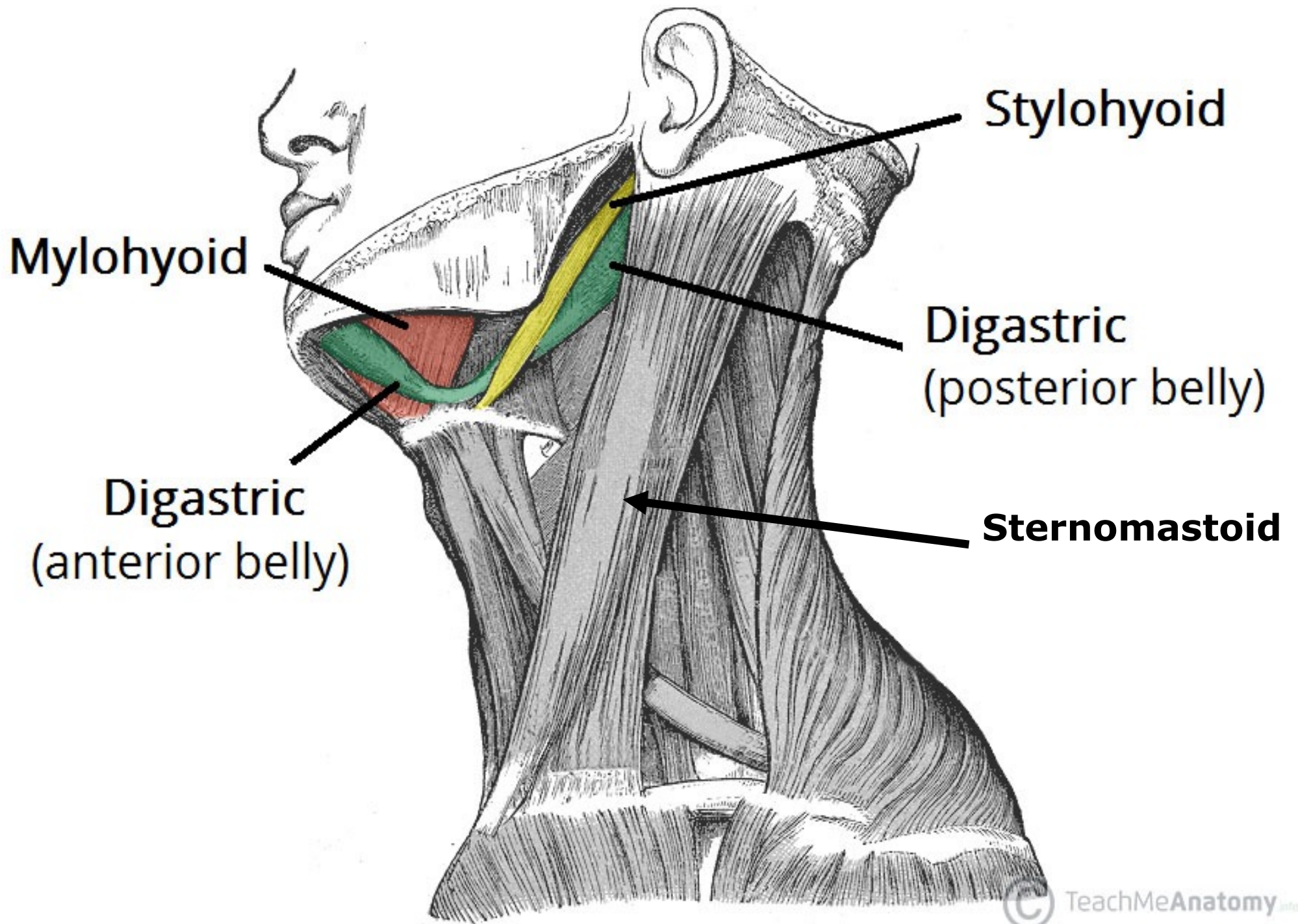
parotid = near the ear

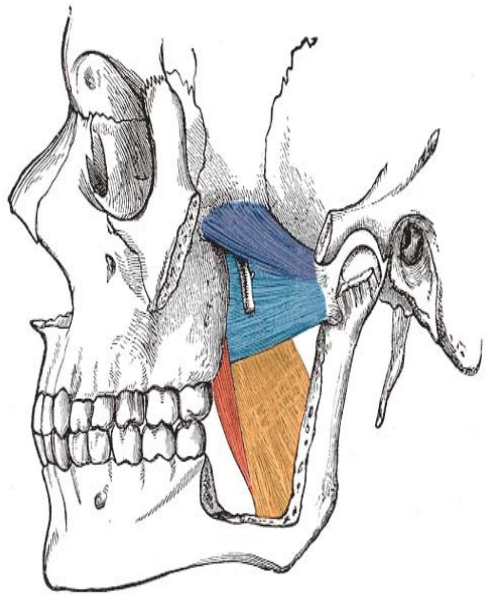
It is one of the salivary glands

The gland has 2 ends (upper, lower), and 3 borders (anterior, posterior and medial) and 3 surfaces (lateral, anteromedial and posteromedial).



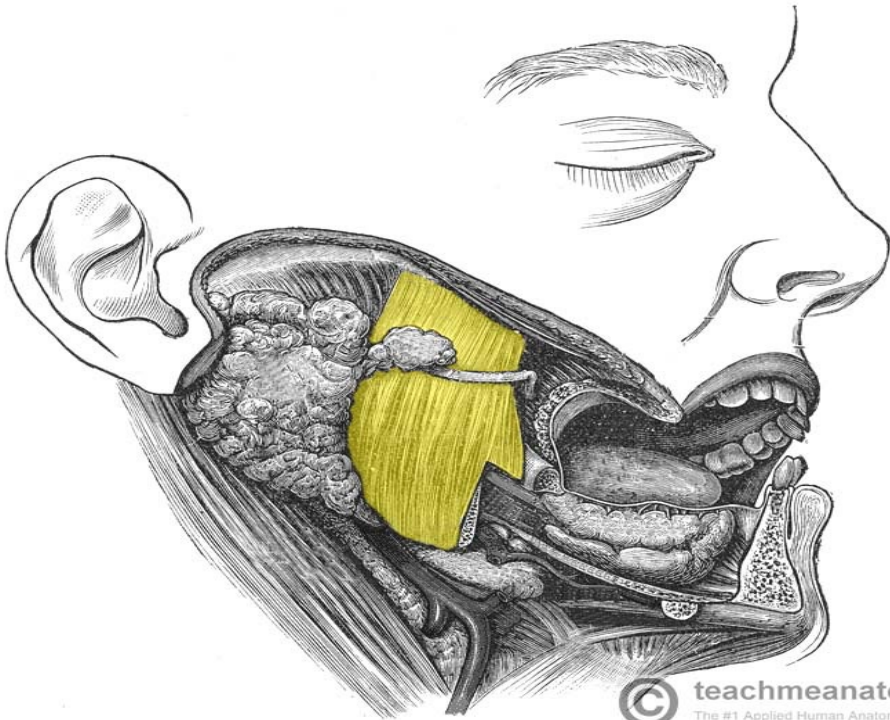
-  **Parotid gland and duct**
-  **Zygomatic arch** (superior border)
-  **Sternocleidomastoid** (posterior border)
-  **Masseter** (anterior border)
-  **Buccinator**



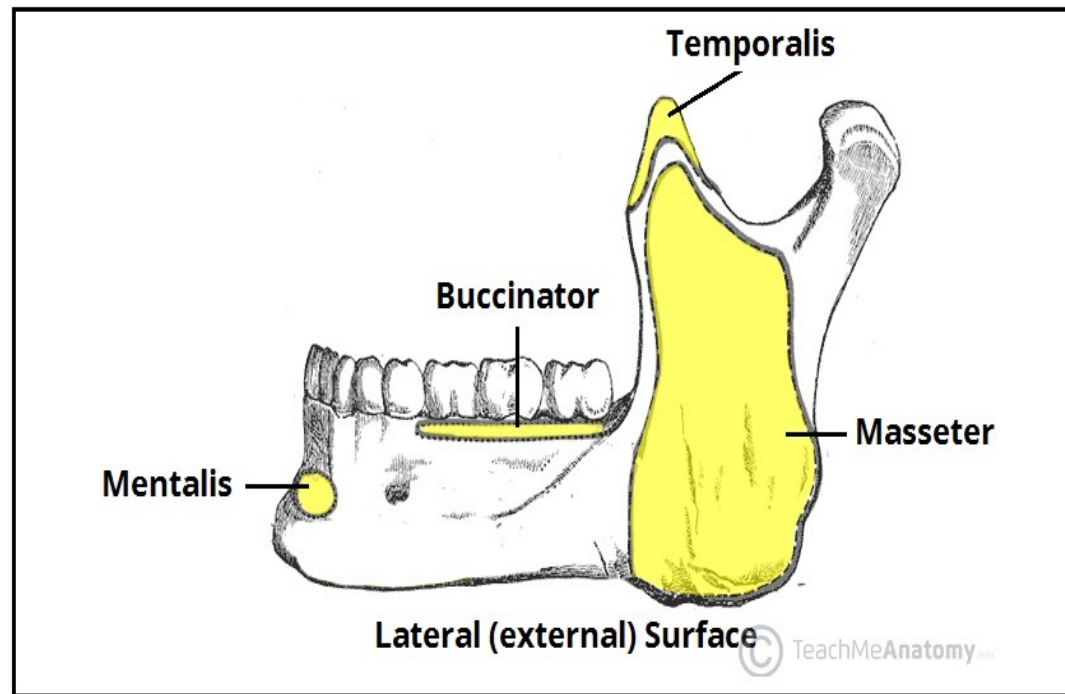
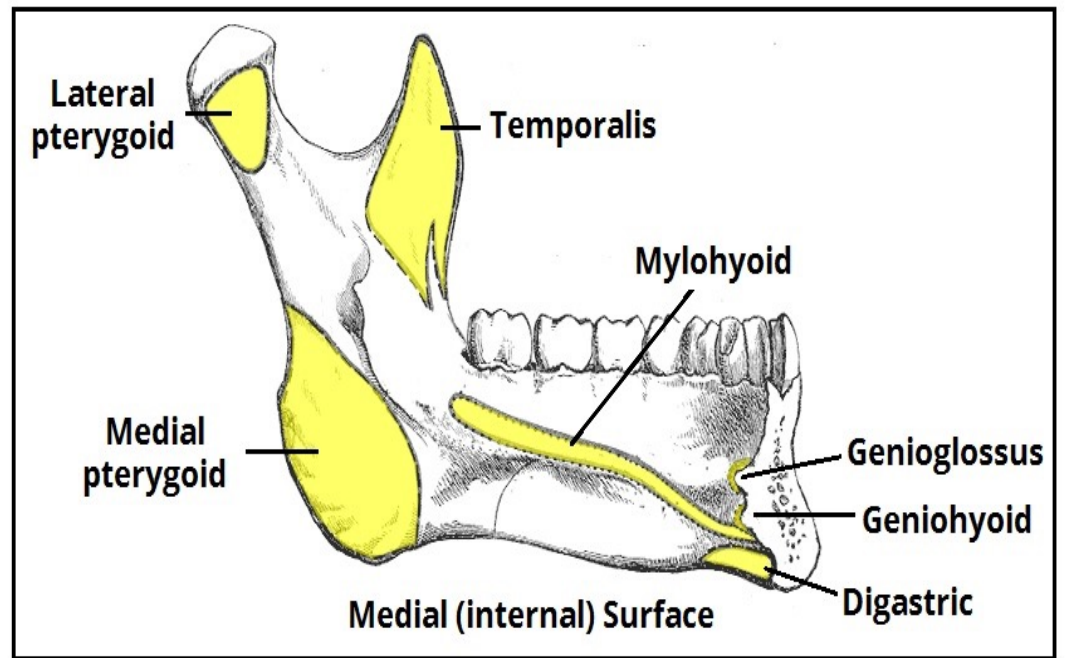


- Superior head of the lateral pterygoid
- Inferior head of the lateral pterygoid
- Deep head of the medial pterygoid
- Superficial head of the medial pterygoid

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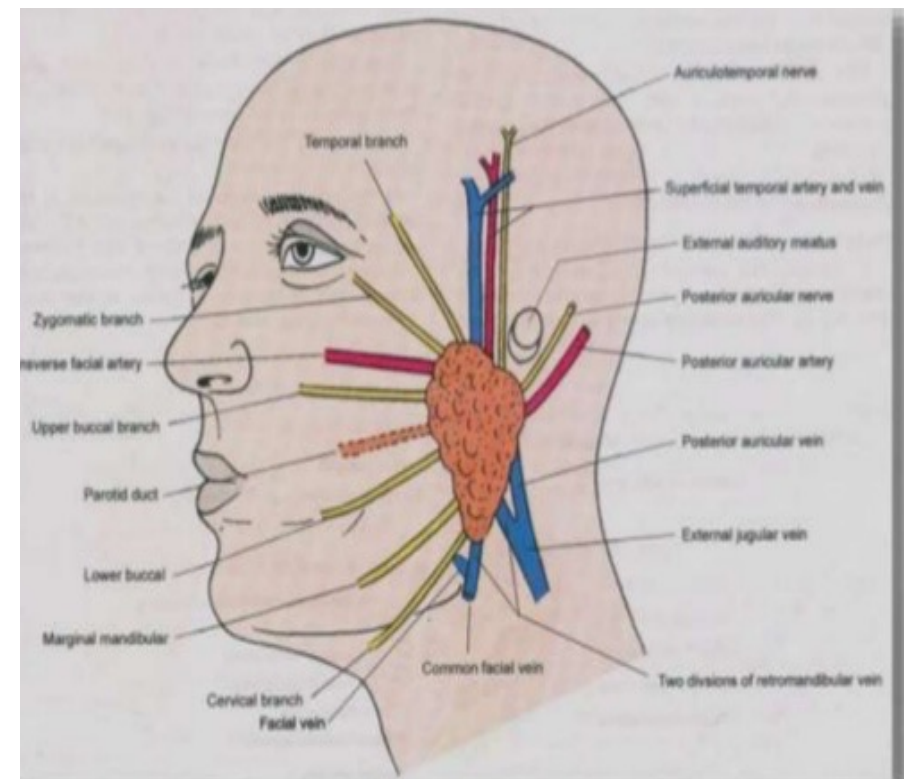
teachmeanatomy
The #1 Applied Human Anatomy Site on the Web.



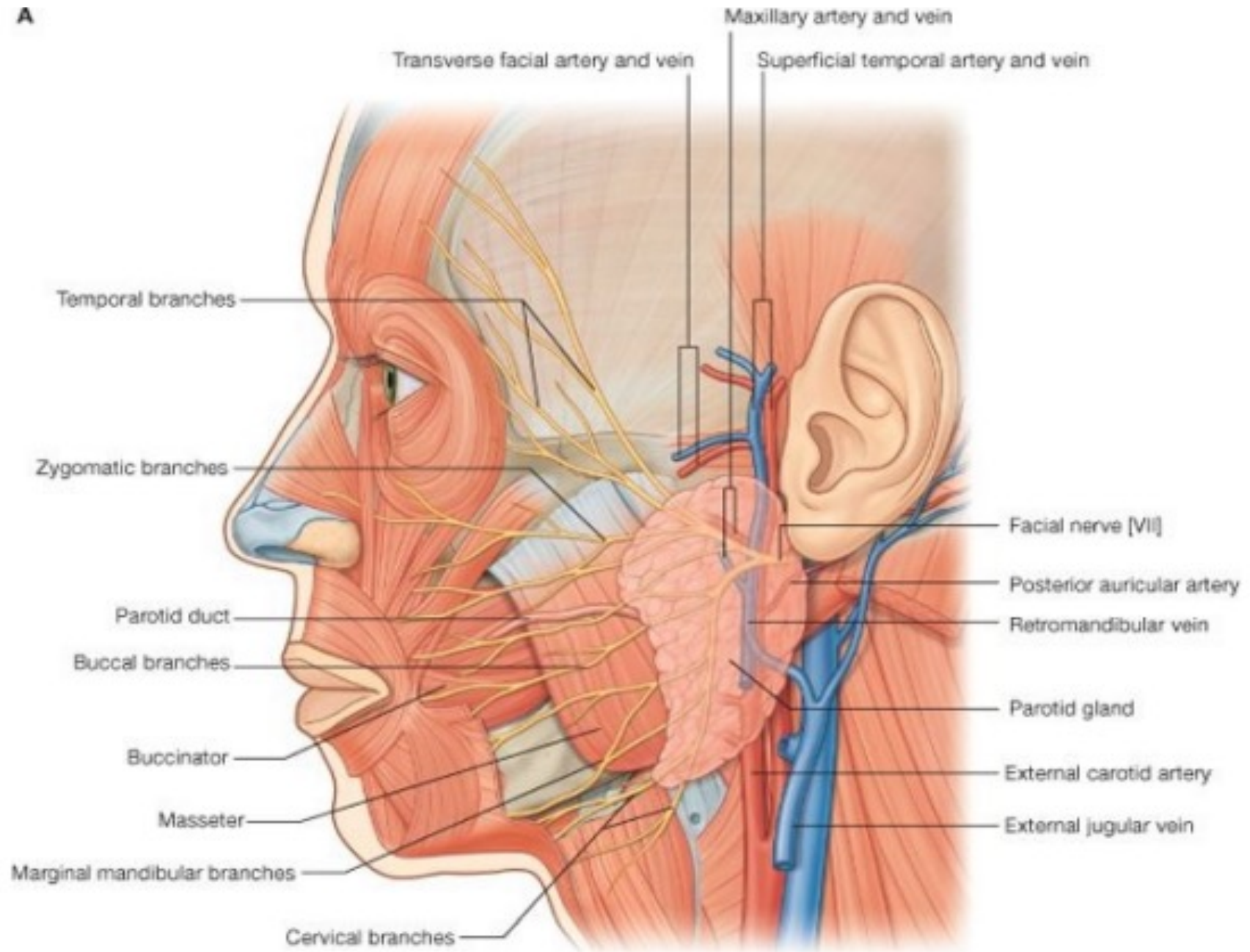
A. Ends of the Gland :

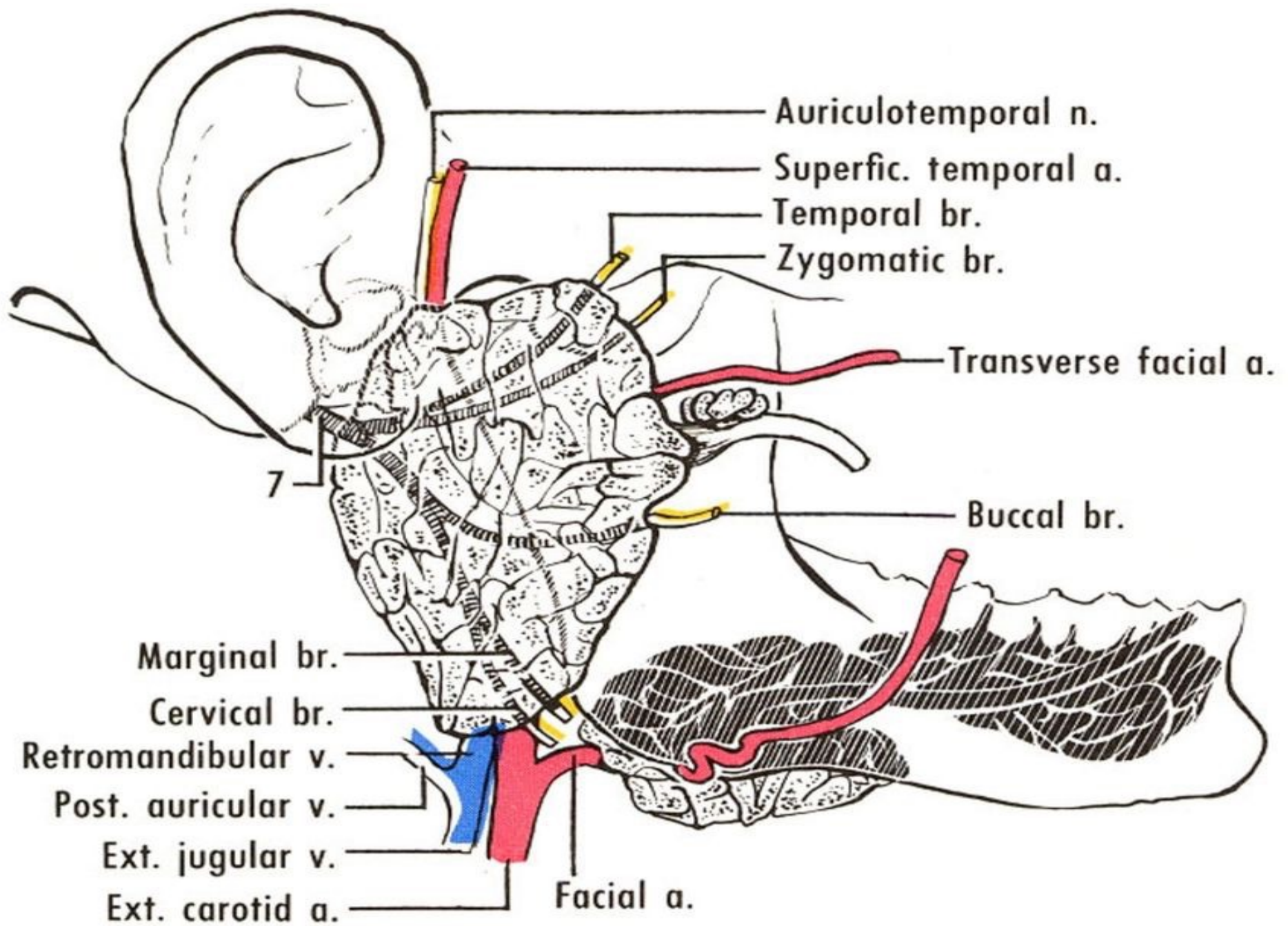
1. The upper end (base) :

- is moulded around the external acoustic meatus.
- **Three** structures escape from it : (**2 nerves and 1 Vessels**)
 - 1) Superficial temporal vessels
 - 2) Auriculotemporal N.
 - 3) Temporal branch of facial N.



A



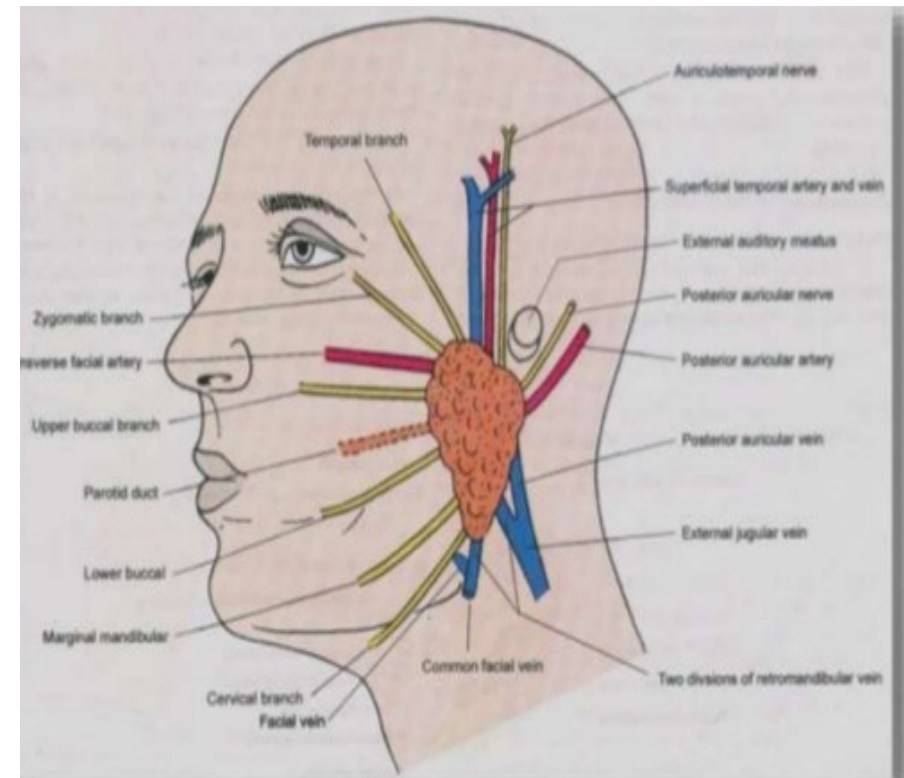


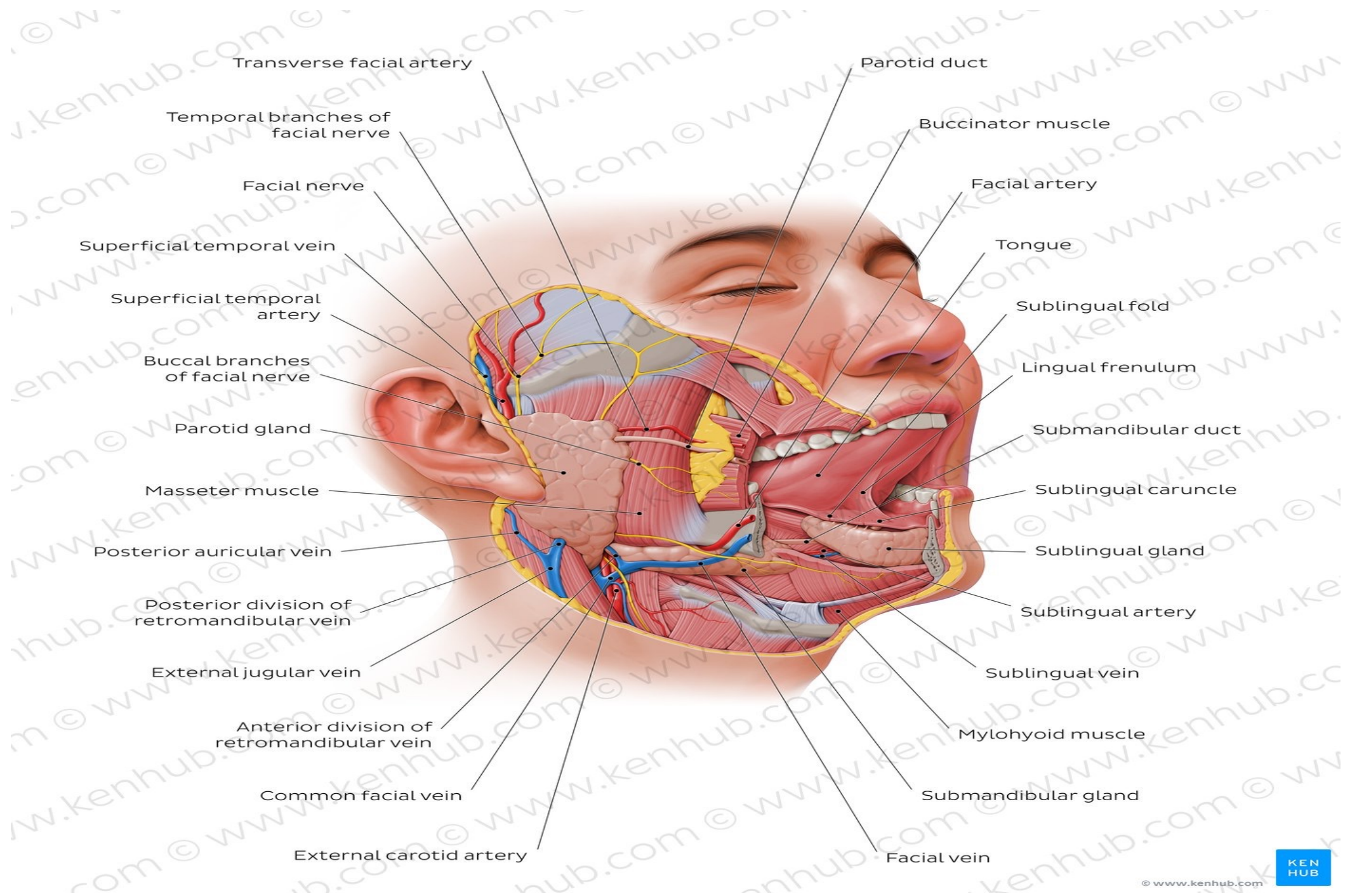
2. The lower end (apex) :

Overlaps the posterior part of the digastric triangle (Part of the neck).

Three structures escape from it :

1. The two divisions of the retromandibular vein
2. Cervical branch of the facial N.





B. Borders of the parotid gland :

1. The anterior border :

Lies on the **masseter muscle**.

Structures emerges from anterior border

- ✓ Zygomatic , buccal and mandibular branch of the facial N.
- ✓ Transverse facial A.
- ✓ Parotid duct

2. The posterior border : overlaps the **sternomastoid muscle**.

3. The medial border : reach the lateral pharyngeal wall.

C. The Surfaces of the Gland

1. The lateral surface : is superficial and related to :

- Skin and Superficial fascia

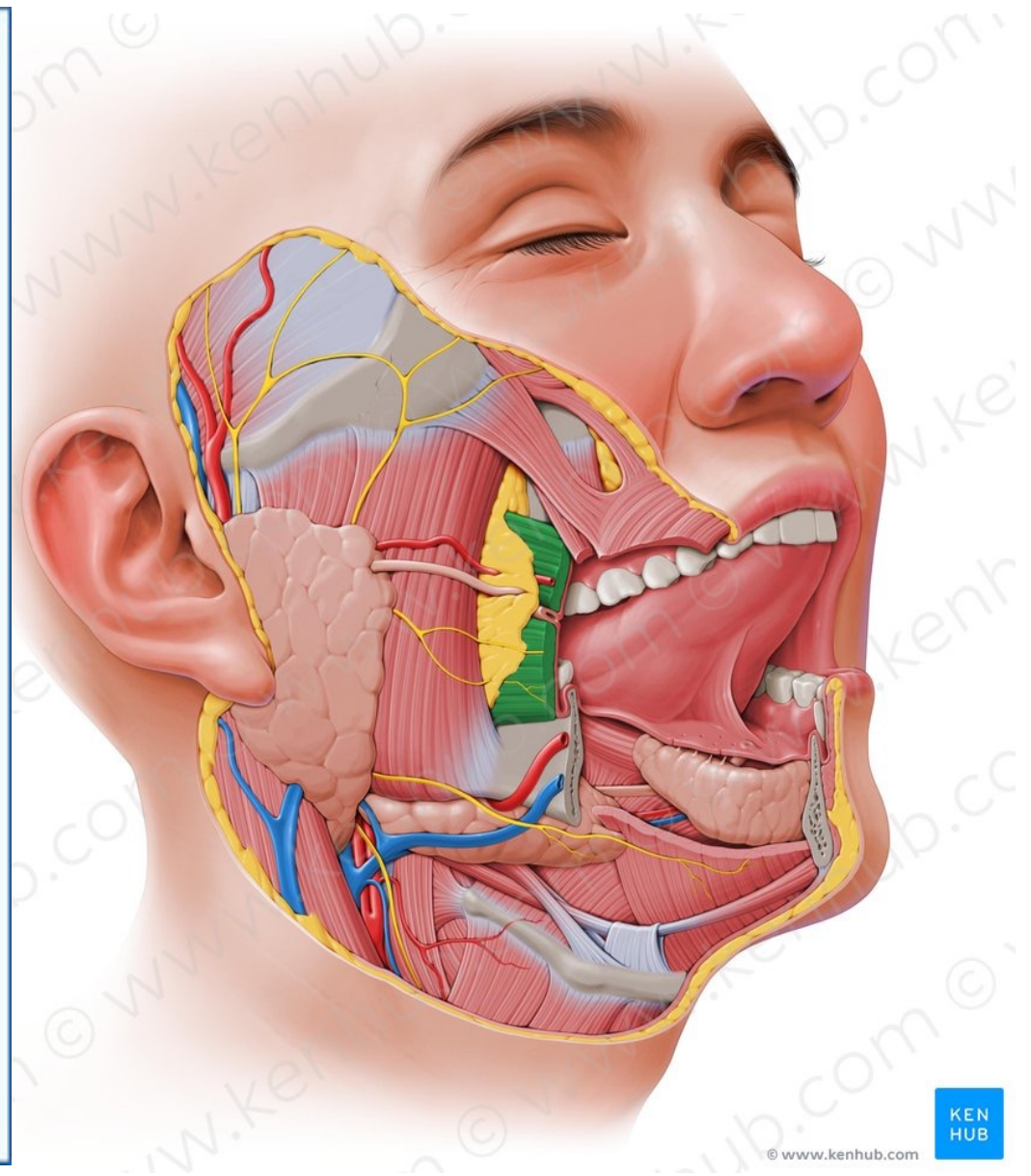
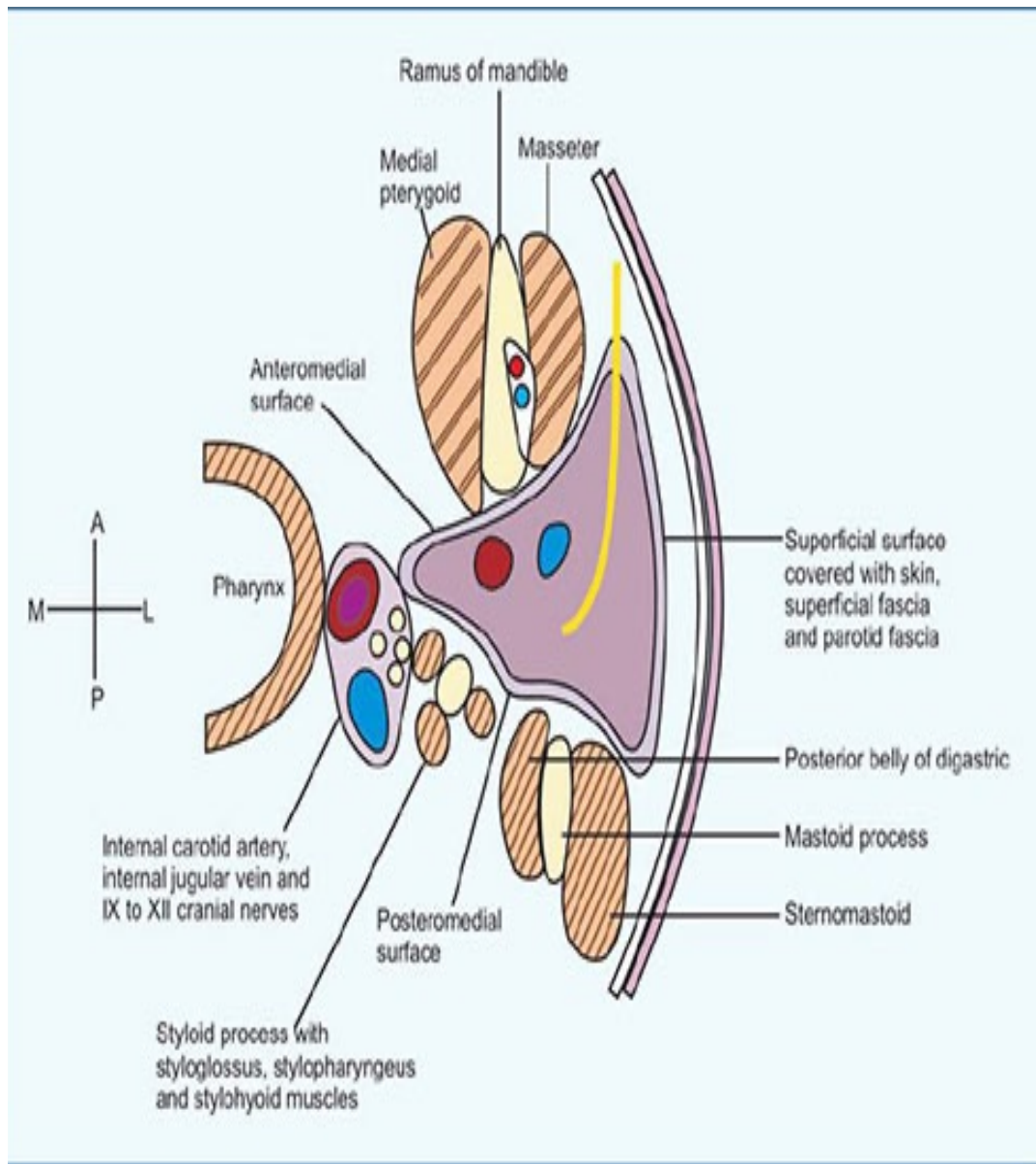
contains branches of the great auricular N. and superficial parotid lymph nodes.

2. The anteromedial surface :

- Is grooved by the posterior border of the mandibular ramus between 2 muscles: the masseter and medial pterygoid.

3. The posteromedial surface :

Fits over the mastoid process between 2 muscles : sternomastoid and posterior belly of digastric.



Relation of parotid gland

Structures within the Parotid Gland :

1. The external carotid artery : (ECA)

The deepest structure in the gland.

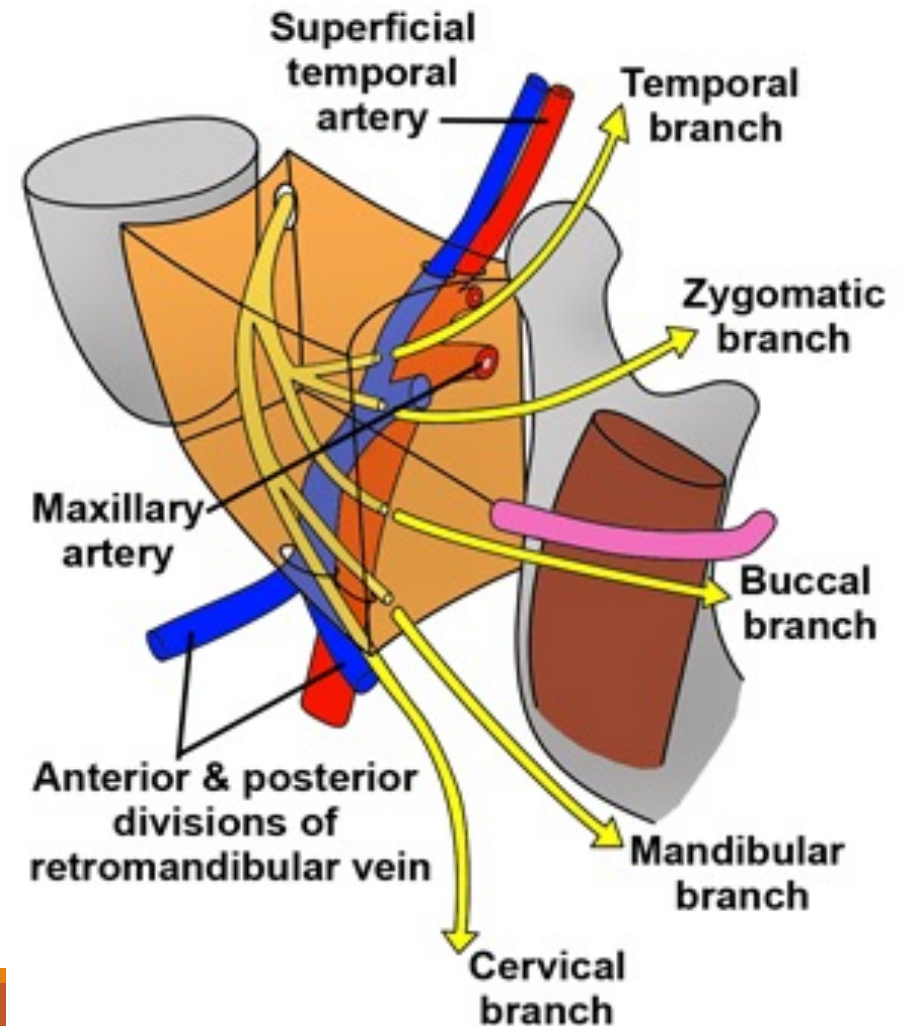
2. Retromandibular vein :

Is intermediate in position

3. The facial nerve:

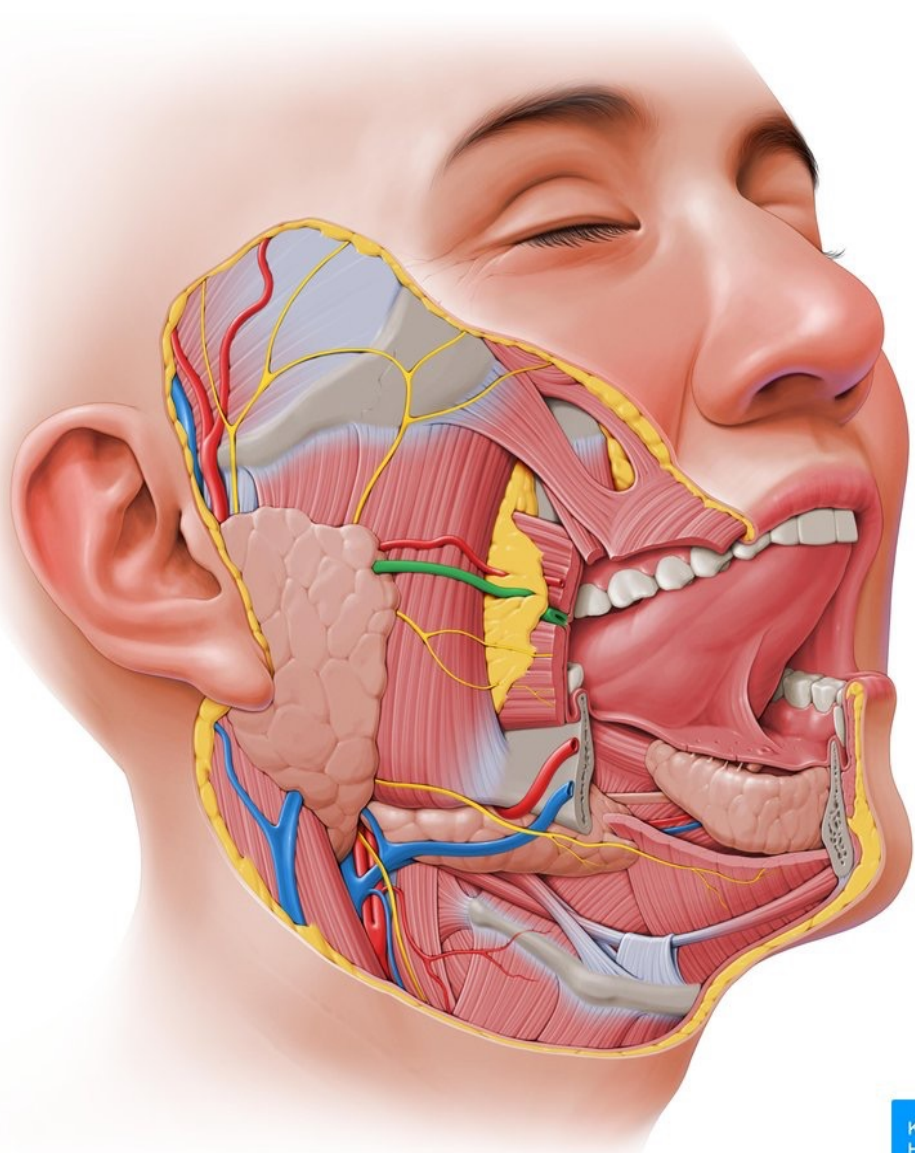
lies superficial to E.C.A. and retromandibular V.

4. Deep parotid lymph nodes

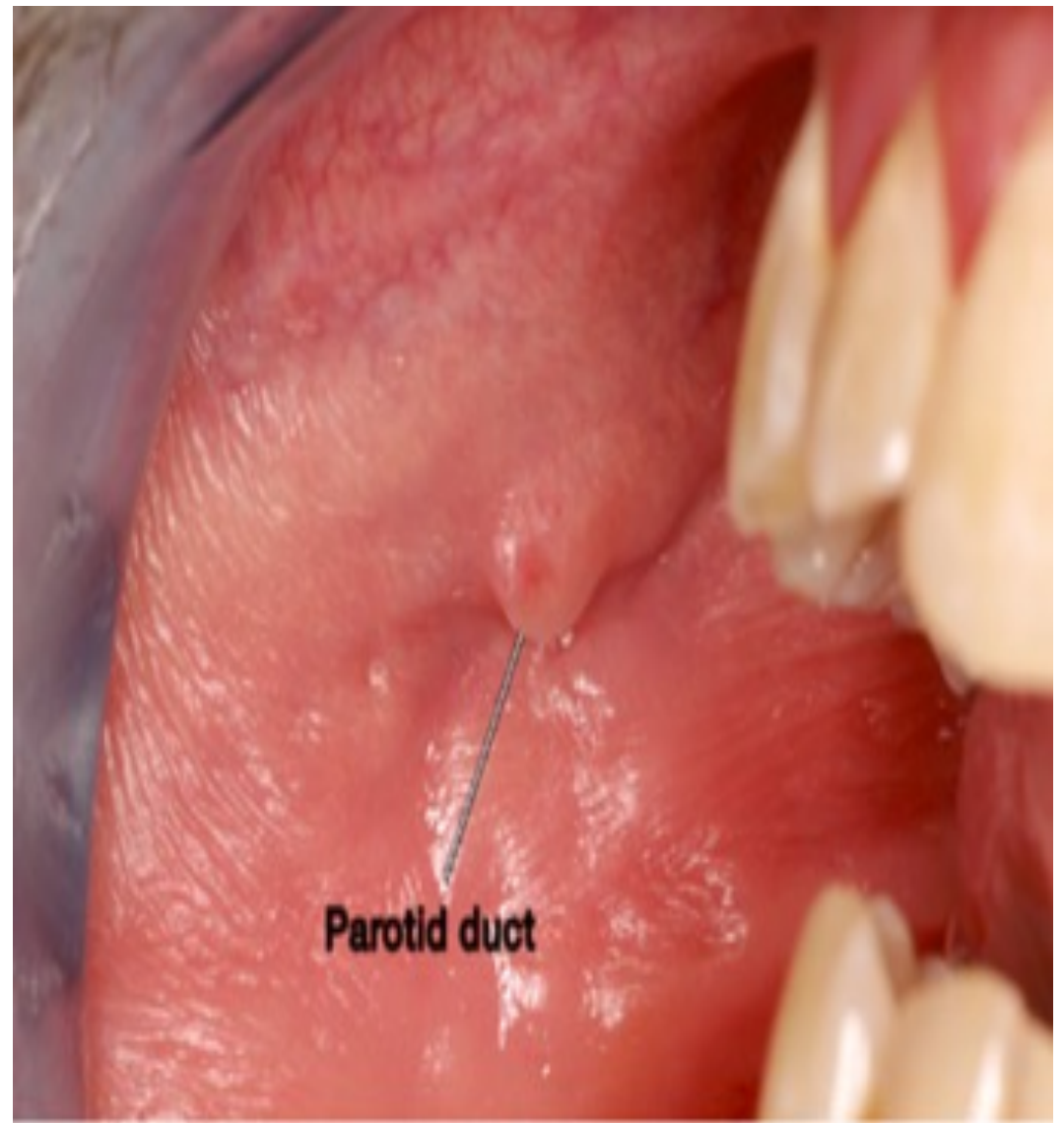


The Parotid Duct :

- ❑ It is 5 cm long.
- ❑ Begins at the anterior part of the gland, crosses the masseter muscle
- ❑ At the anterior border of masseter, the duct turns pierce the buccal pad of fat and buccinator muscle opposite the upper **3rd molar** tooth.
- ❑ Then it runs forwards between the buccinator and oral mucosa
- ❑ It pierces the oral mucosa opposite the **upper 2nd molar** tooth to open in the vestibule of the mouth.
- ❑ This oblique course of the duct, prevents its inflation during blowing with the increased intraoral pressure.



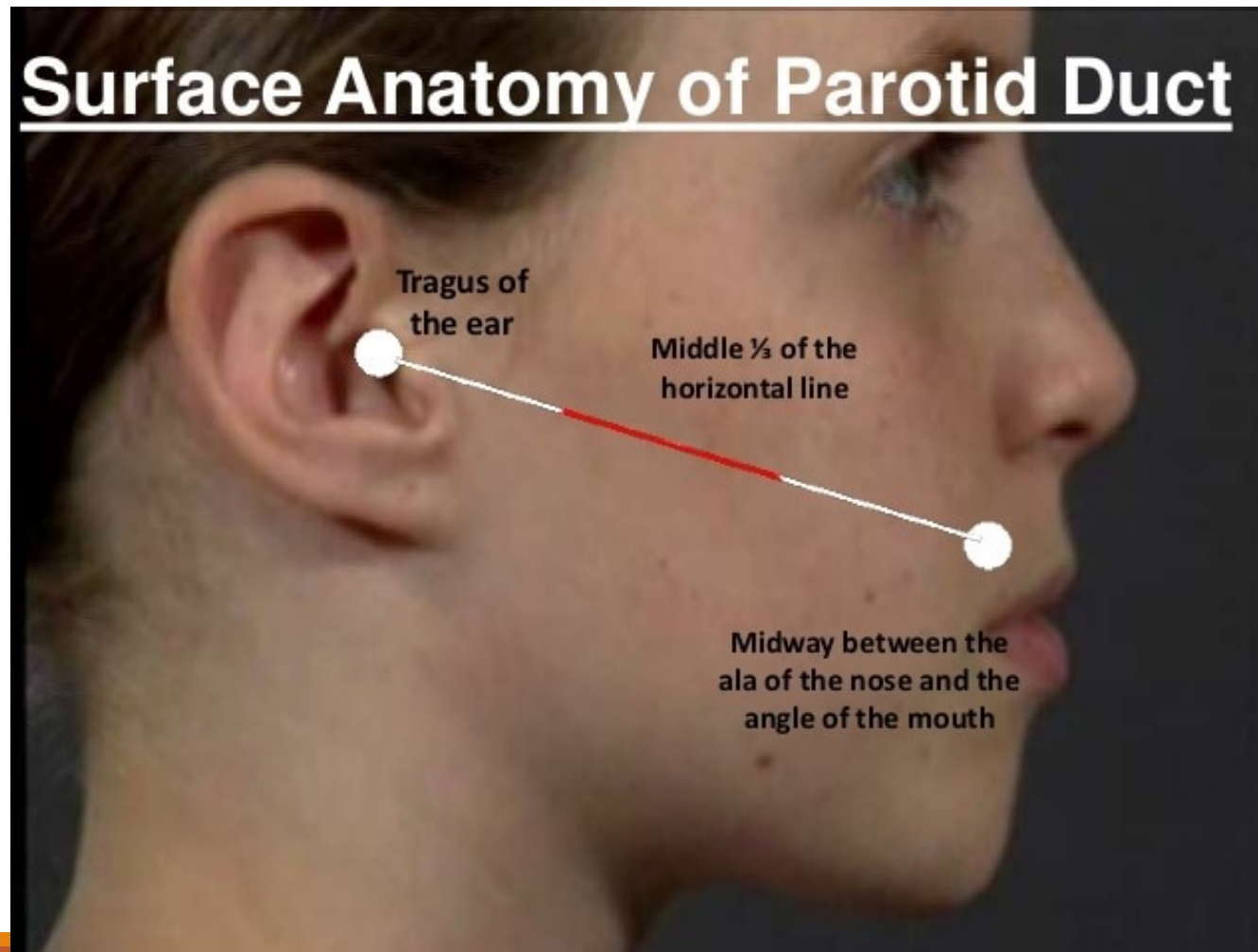
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The Parotid Duct

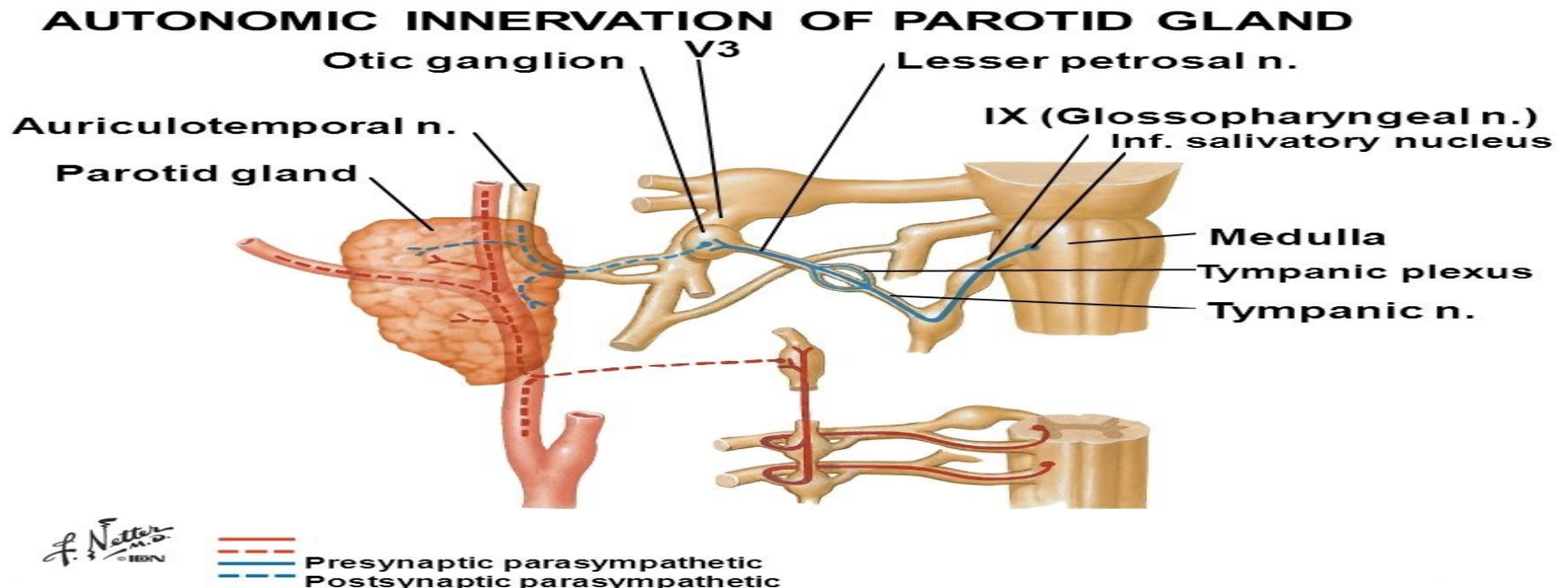
Surface anatomy of parotid duct :

It is represented by the middle 1/3 of a line joining the tragus of the auricle a point midway between ala of the nose and the red margin of the lip.



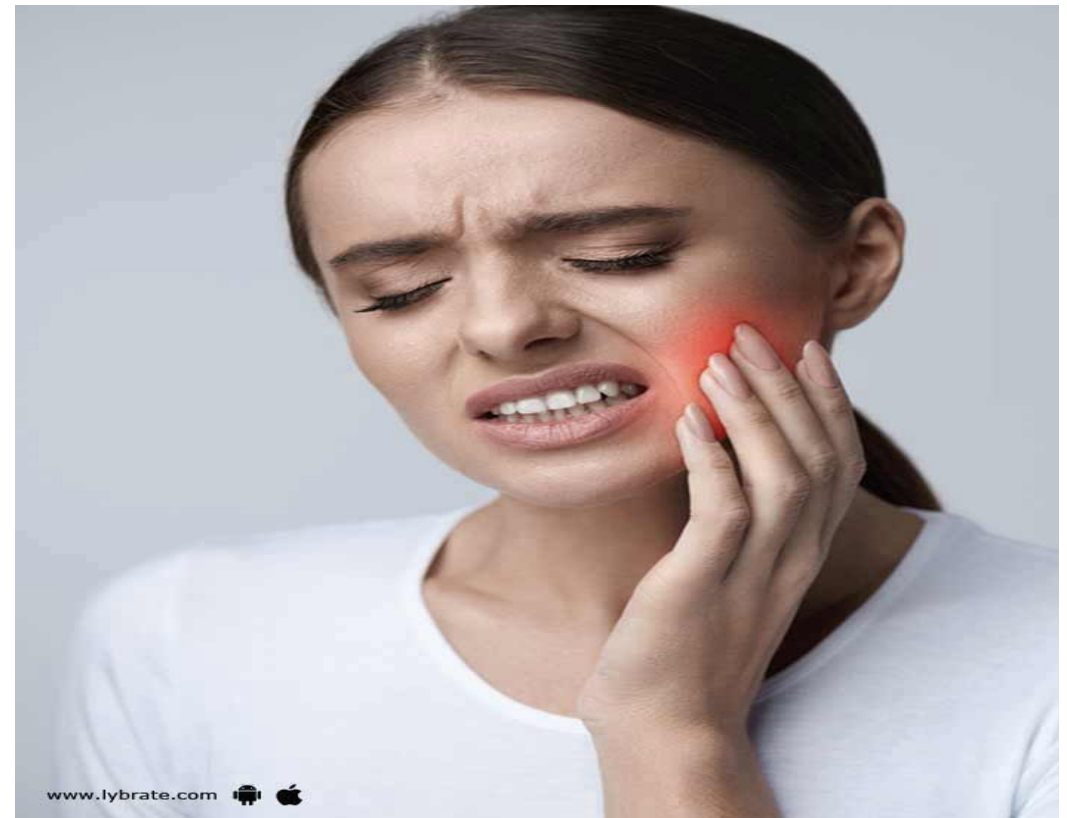
Nerve Supply of the Parotid Gland

Sensory		Autonomic	
To the capsule	To the parenchyma	Sympathetic	Parasympathetic
Great auricular N.	Auriculotemporal N.	From the plexus around E.C. A.	Lesser petrosal branch of the glossopharyngeal N. (9 th cranial nerve)



Parotid pain !!

Parotid gland disease often causes pain in the auricle, external acoustic meatus, temporal region, and tempomandibular joint (TMJ) because the auriculotemporal nerve, which carry sensation from parotid gland, also supplies sensory fibers to the skin over the temporal fossa and auricle

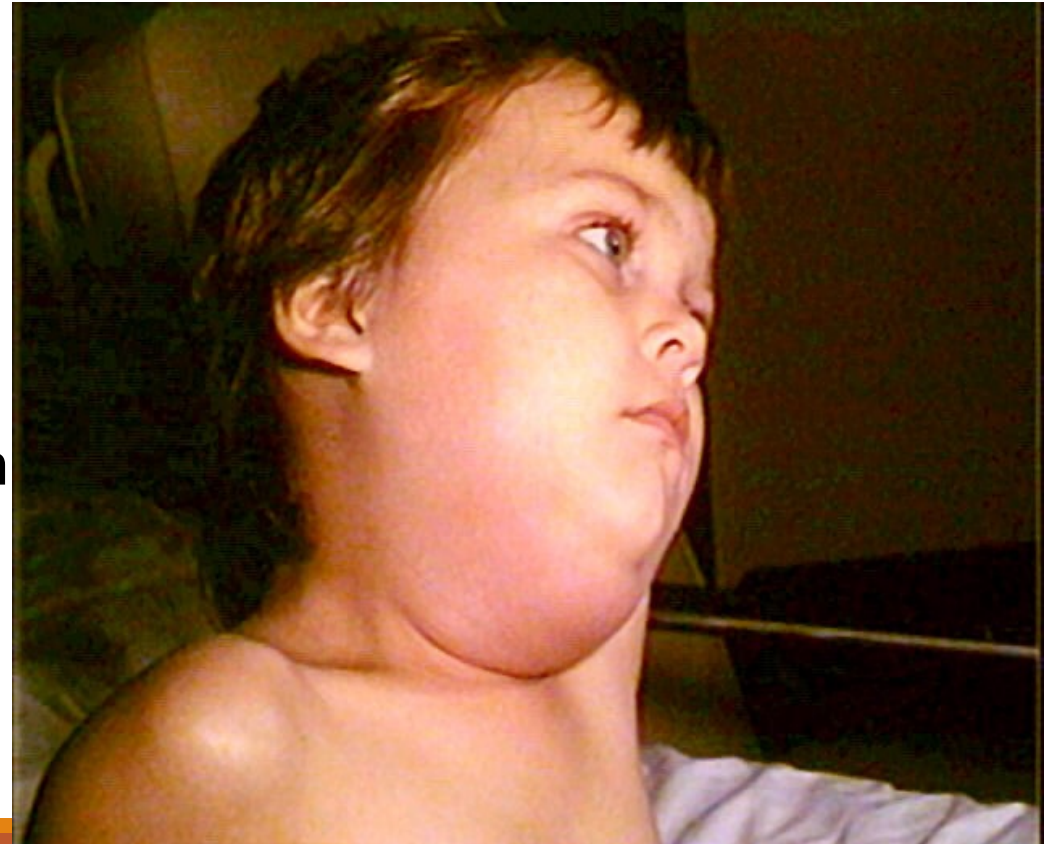


Clinical Notes

1-Mumps : it is viral infection of parotid gland

Symptoms : The pain increase during chewing because the enlarged gland is wrapped around the posterior border of the ramus of the mandible and is compressed against the mastoid process when the mouth is opened .

It can be confused with a toothache.
But mumps is characterized by redness of the parotid papilla (opening of parotid duct in the mouth)



2- Parotid gland Tumor

Produce damage to facial nerve

3- Parotid gland stones

The patient complains of sever pain during salivation

Can be diagnosed by squeezing lemon juice into the patient's mouth(WHY ?!!)



A doctor in a white lab coat and stethoscope is writing the words "Thank you!" in blue marker on a whiteboard. The doctor is holding a blue marker in their right hand. The background is white with faint, repeating watermarks of a camera icon and the text "123RF".

Thank you!