The Face

1-Skin of the Face

The skin of the face is:

- Elastic
- Vascular (bleed profusely however heal rapidly)
- Rich in sweat and sebaceous glands (can cause acne in adults)
- It is connected to the underlying bones by loose connective tissue, in which are embedded the muscles of facial expression

2-Superficial fascia of the face

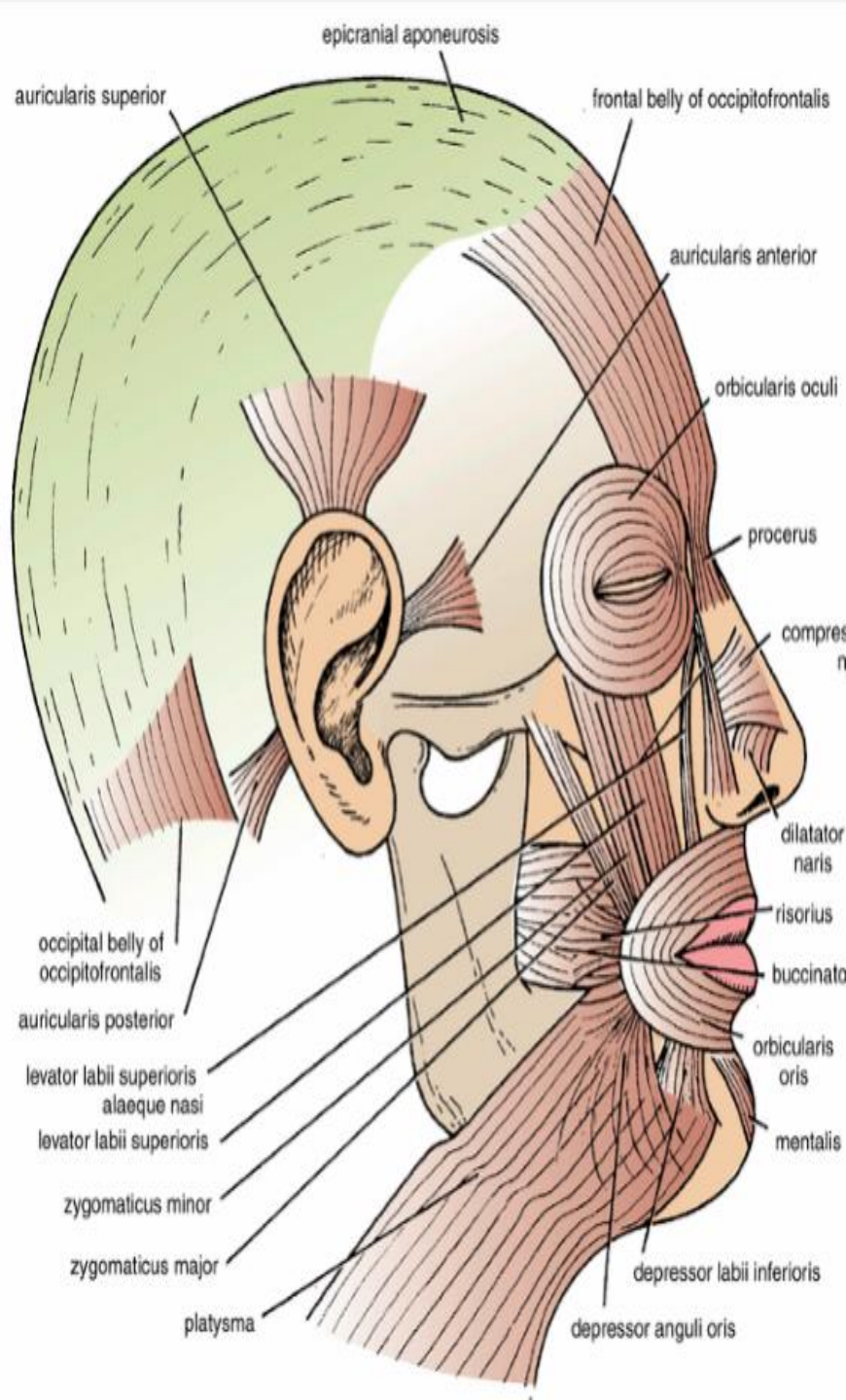
Contains:

a-facial muscles

b-vessels & nerves

c-fat tissue (absent in the eye lids but it is well developed in the cheeks)

3-Deep fascia: is absent (except over the parotid gland & buccopharngeal fascia covering the buccinator muscle)



Muscles of the face: muscles of the facial expression

General features

1-They lie within the superficial fascia

2-They take their origin from the facial bones

3-They are inserted into the skin

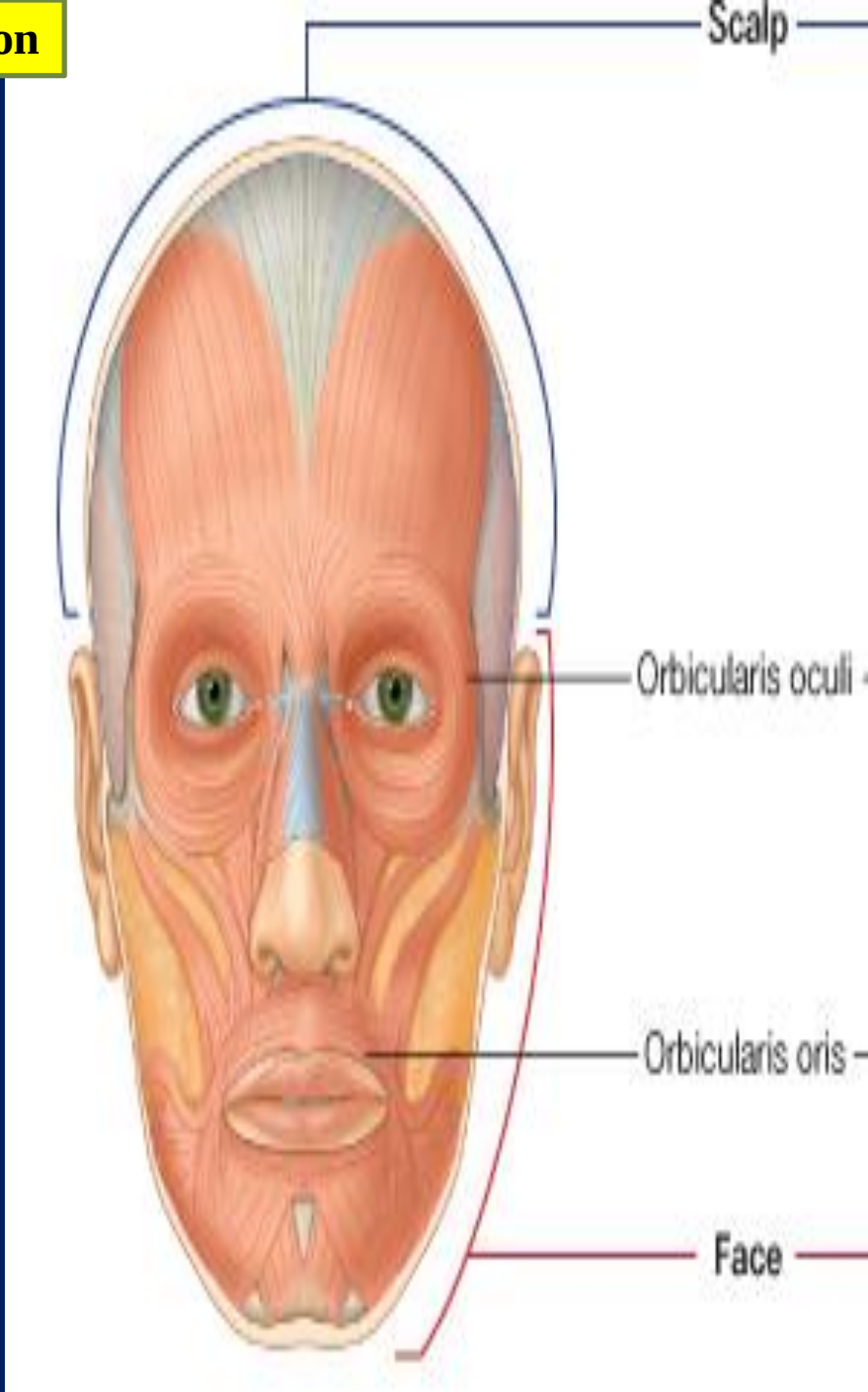
4- They are arranged around the three openings of the face namely, the orbit, nose, and mouth either as sphincters or dilators

5- They are supplied by the facial nerve

6- Embryologically, they are originating from the mesoderm of the second branchial arch and therefore are supplied by the facial nerve

7- Can be divided into two groups

1- Three large muscles
2- Many small muscles



1- Three large muscles

1-Buccinator muscle
2- Orbicularis oris muscle
3- Orbicularis occuli muscle

2-Many small muscles such as:

Levator labii superioris alaeque nasi

Levator labii superioris

Zygomaticus minor

Zygomaticus major

Levator anguli oris

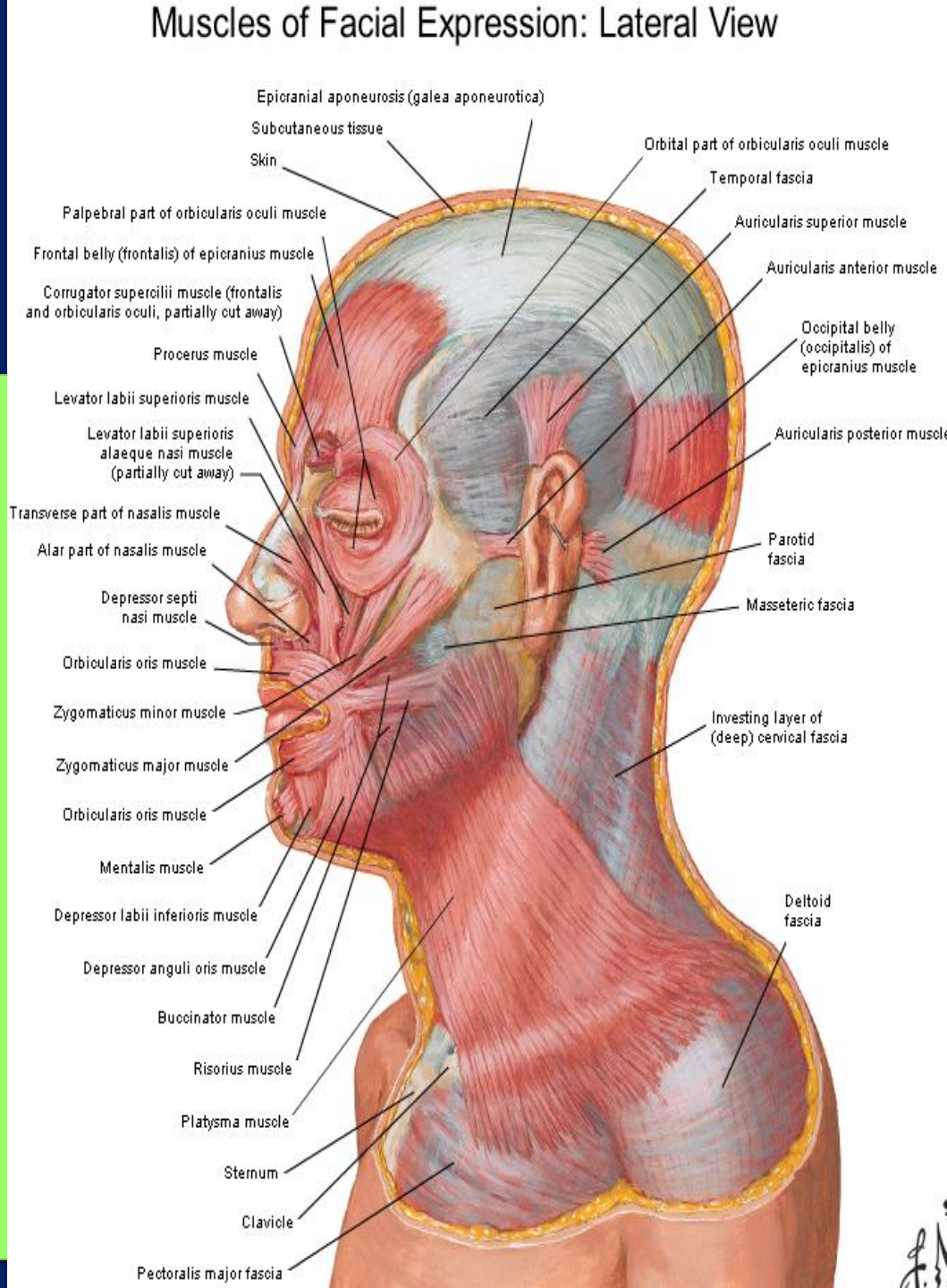
Risorius

Depressor anguli oris

Depressor labii inferioris

Mentalis

Platysma



Muscle of the Cheek

Buccinator

Origin:

Upper fibers: from the maxilla opposite the molar teeth

Lower fibers:from the mandible opposite the molar teeth

Middle fibers: from the pterygomandibular ligament

Insertion: ***At the angle of the mouth***

the **central (middle)** fibers decussate, those from below entering the upper lip and those from above entering the lower lip

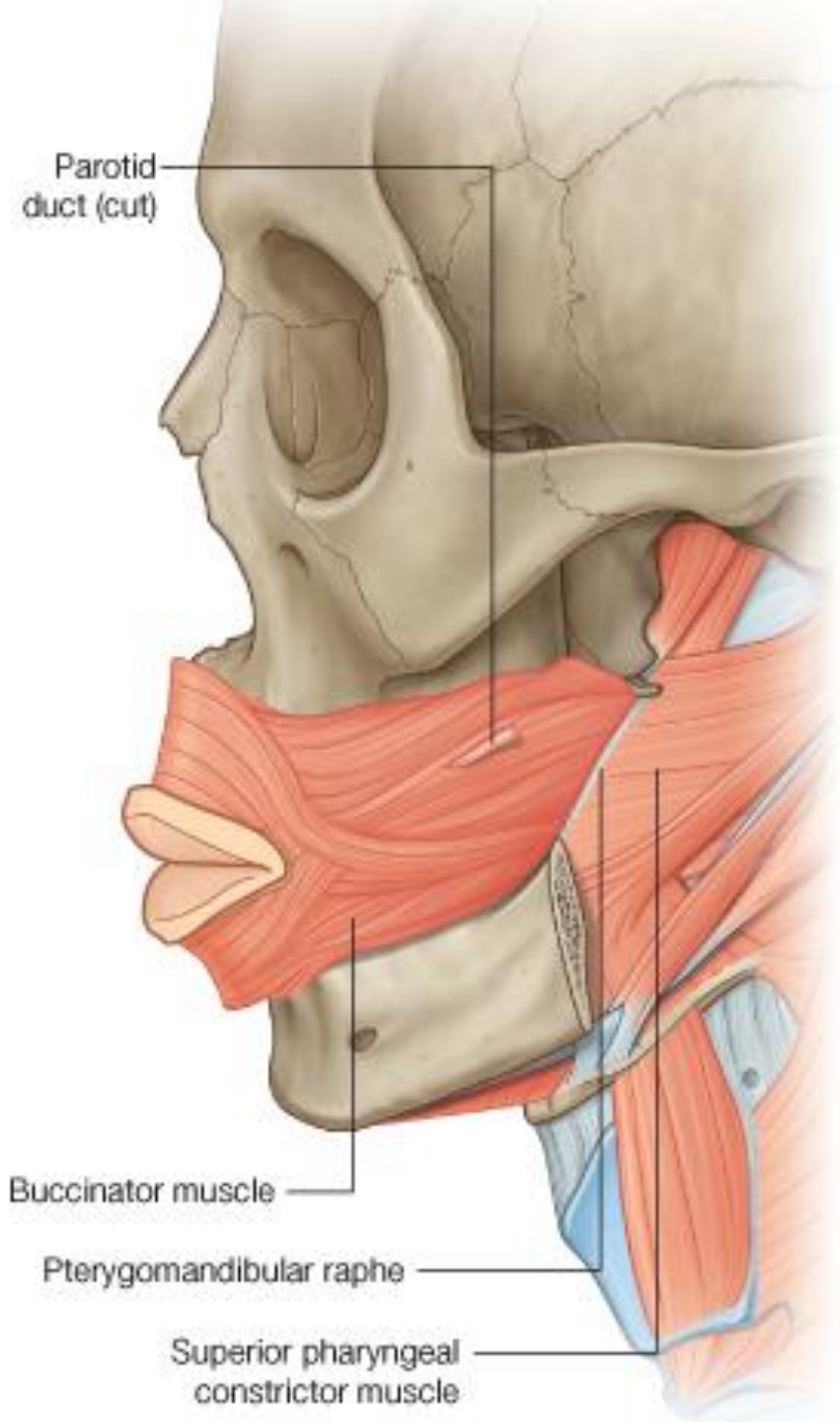
the highest (upper) and **lowest (lower)**fibers continue into the upper and lower lips, respectively, without intersecting.

The buccinator muscle thus blends and forms part of the **orbicularis oris muscle**.

The muscle is pierced by *the parotid duct.*

Nerve supply: Buccal branch of the facial nerve

Action: Compresses the cheeks and lips against the teeth (prevents accumulation of food in the vestibule)



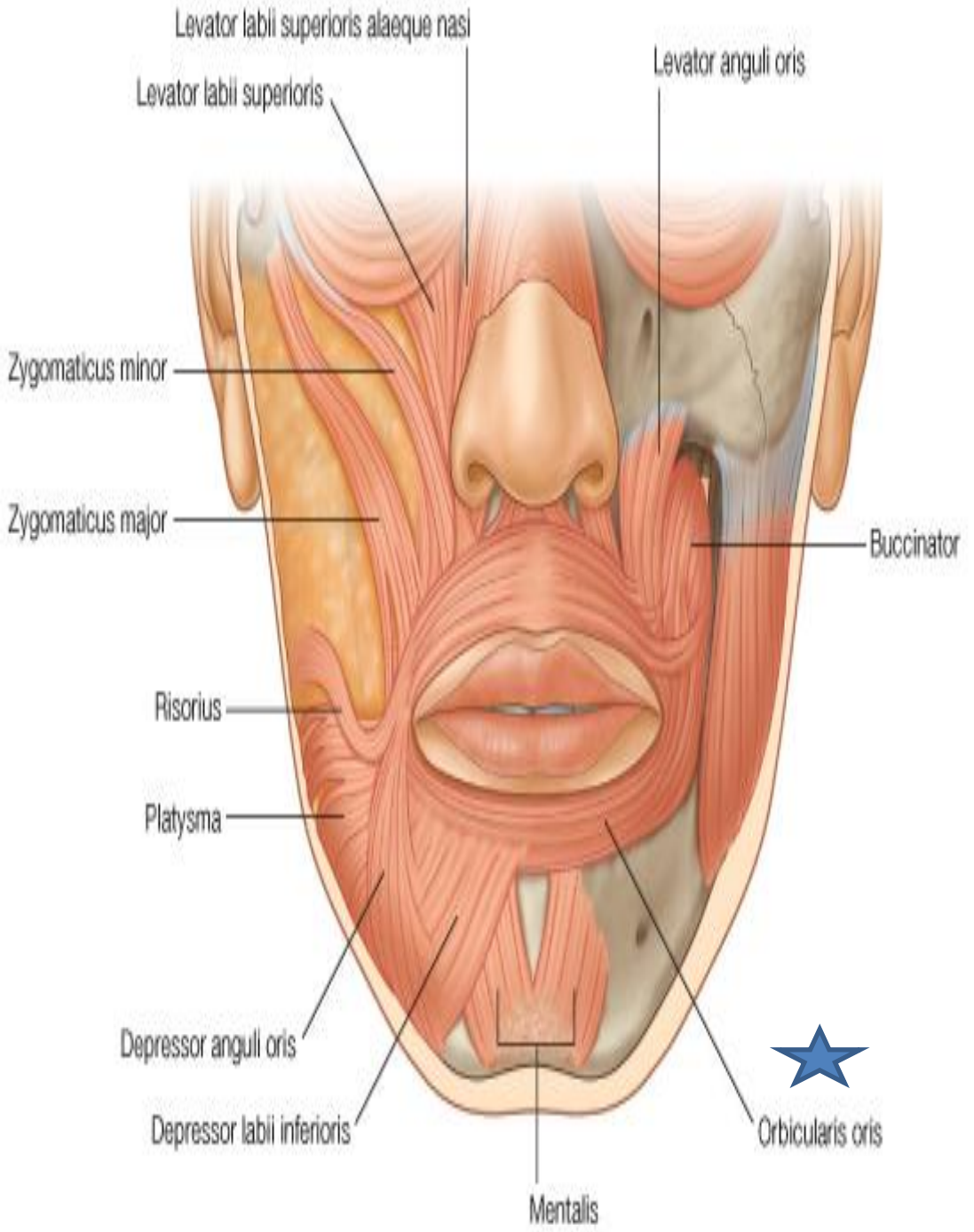
Orbicularis Oris

Origin : ***The fibers encircle the oral*** orifice within the substance of the lips
Some of the fibers arise near the midline from the maxilla above and the mandible below.
Other fibers arise from the deep surface of the skin and pass obliquely to the mucous membrane lining the inner surface of the lips.
Many of the fibers are derived from the buccinator muscle.
Insertion: ***angles of the mouth and lips***

Nerve supply: ***Buccal and mandibular*** branches of ***the facial nerve***

Action: ***Compresses the lips together (closes the vestibule of the mouth)?!***

How you should test it?



Orbicularis oculi

The **orbicularis oculi** is a large muscle that completely surrounds each orbital orifice and extends into each eyelid

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It has two major parts:

1-The outer orbital part is a broad ring that encircles the orbital orifice and extends beyond the orbital rim;

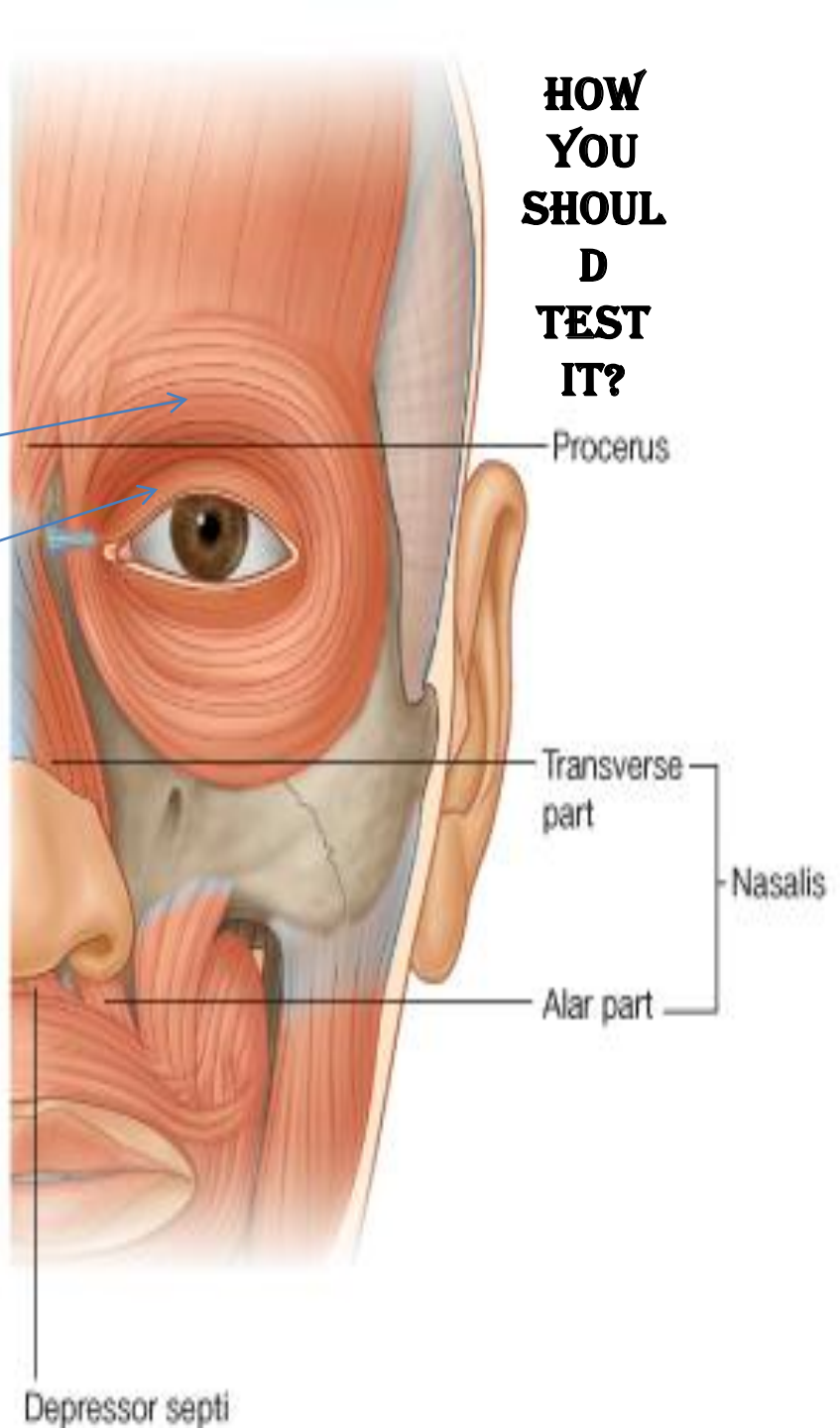
2-The inner palpebral part is in the eyelids and consists of muscle fibers originating in the medial corner of the eye that arch across each lid to attach laterally.

Action:

The orbital and palpebral parts have specific roles to play during eyelid closure.

The palpebral part closes the eye **gently** whereas

The orbital part closes the eye **more forcefully** and produces some wrinkling on the forehead

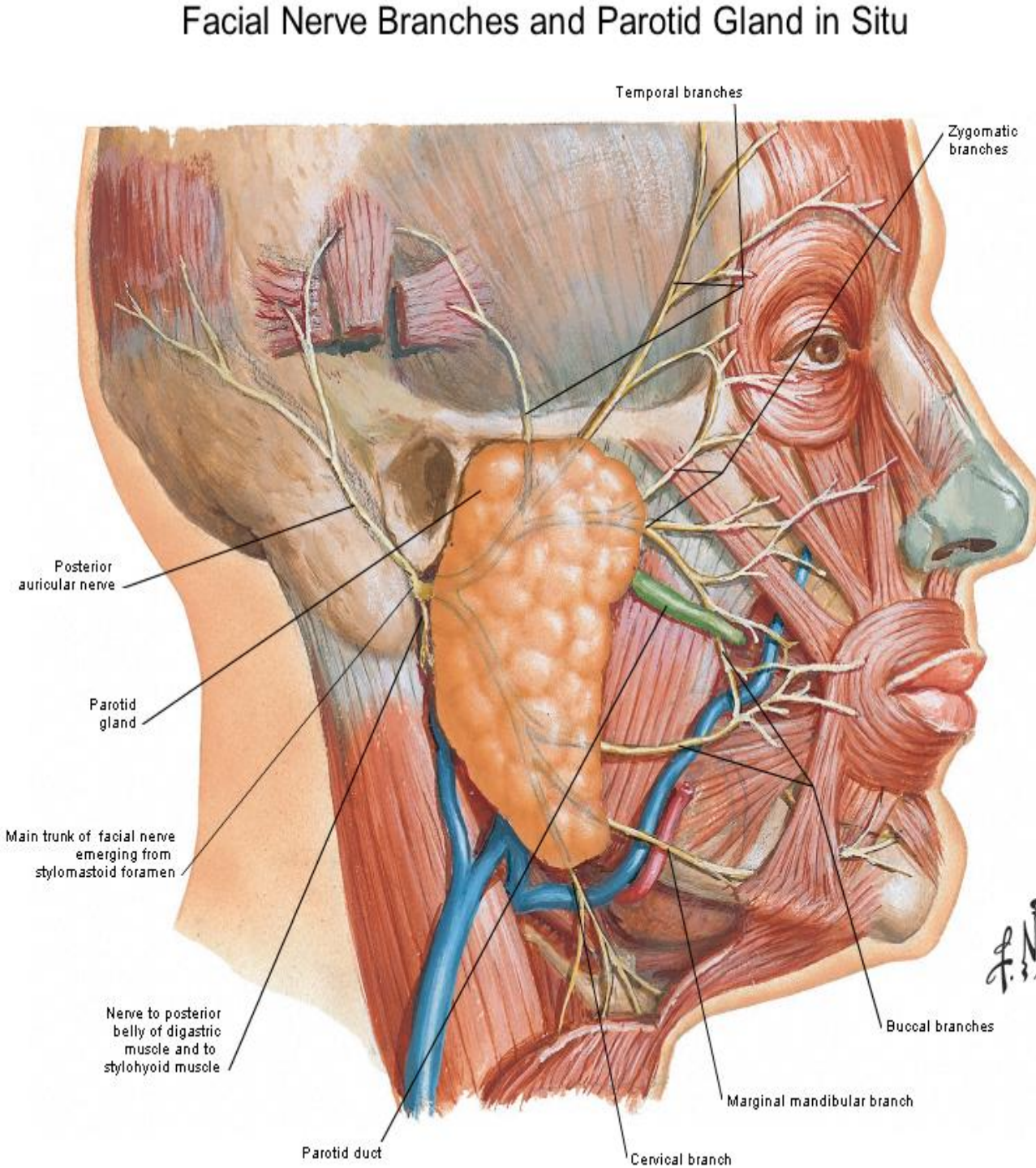


During development a cranial nerve becomes associated with each of the pharyngeal arches. Because the face is primarily derived from the first and second pharyngeal arches, innervation of neighboring facial structures varies as follows: the trigeminal nerve [V] innervates facial structures derived from the first arch;
the facial nerve [VII] innervates facial structures derived from the second arch

Facial Nerve

As the facial nerve runs forward within the substance of the parotid salivary gland it divides into its five terminal branches

1-The temporal
2-The zygomatic
3-The buccal
4-The mandibular
5-The cervical



Facial Muscle Paralysis

A-a lower motor neuron lesion

Damage to the facial nerve in

1- The internal acoustic meatus (by a tumor)

2-The middle ear (by infection or operation),

3-The facial nerve canal (perineuritis,

4- The parotid gland (by a tumor)

5- Lacerations of the face

will cause distortion of the face

drooping of the lower eyelid,

and the angle of the mouth will sag on the affected side.

Bell's palsy

B-An upper motor neuron lesion

(involvement of the pyramidal tracts) will leave the

upper part of the face normal

because the neurons supplying this part of the face receive

corticobulbar fibers from both cerebral cortices.