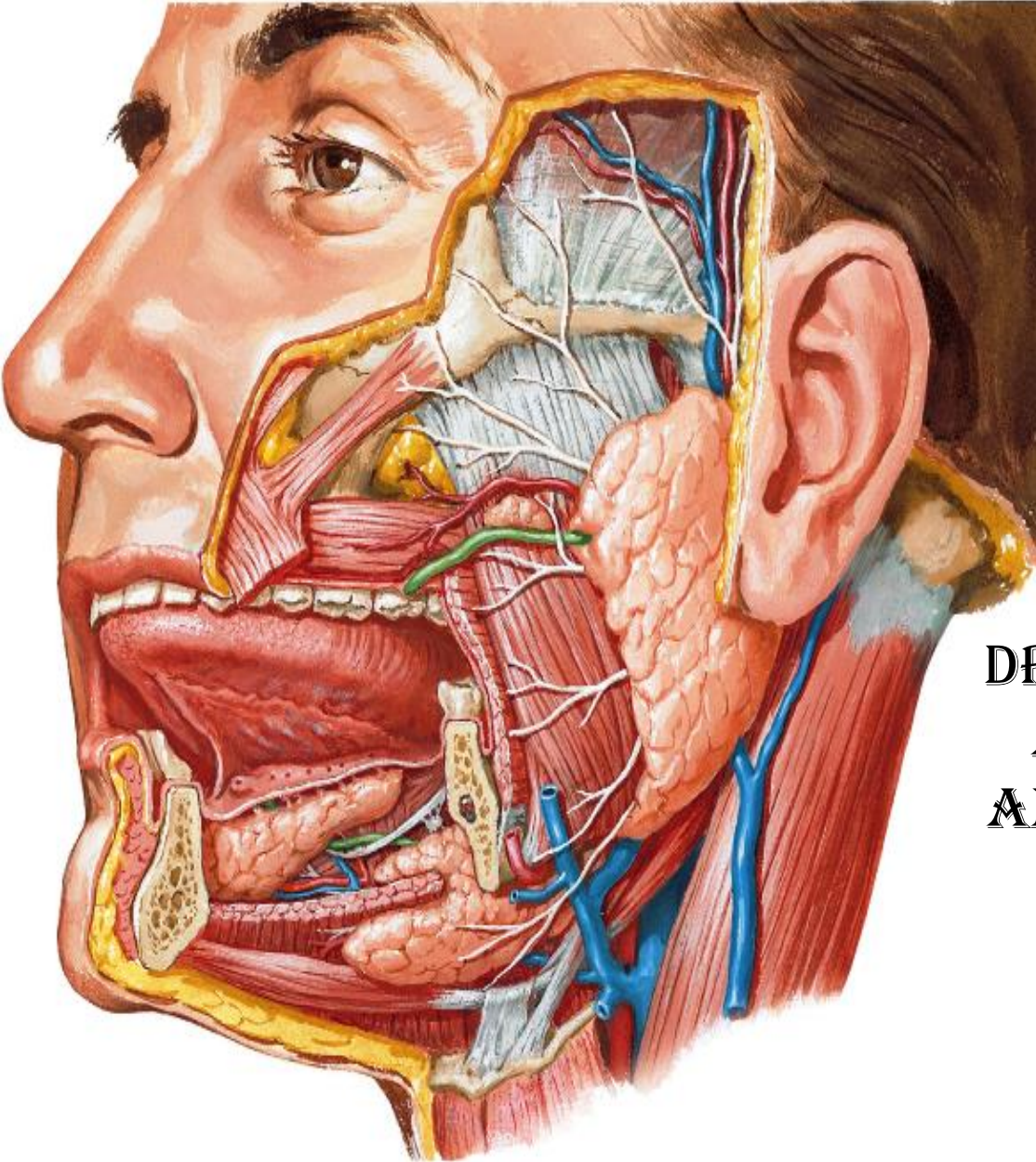


# PAROTID GLAND



BY

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# PAROTID GLAND

**Def.:** largest salivary gland (serous)

**parts:**

**main part:** will be discussed .

**accessory part:** small detached that lies in front the main part

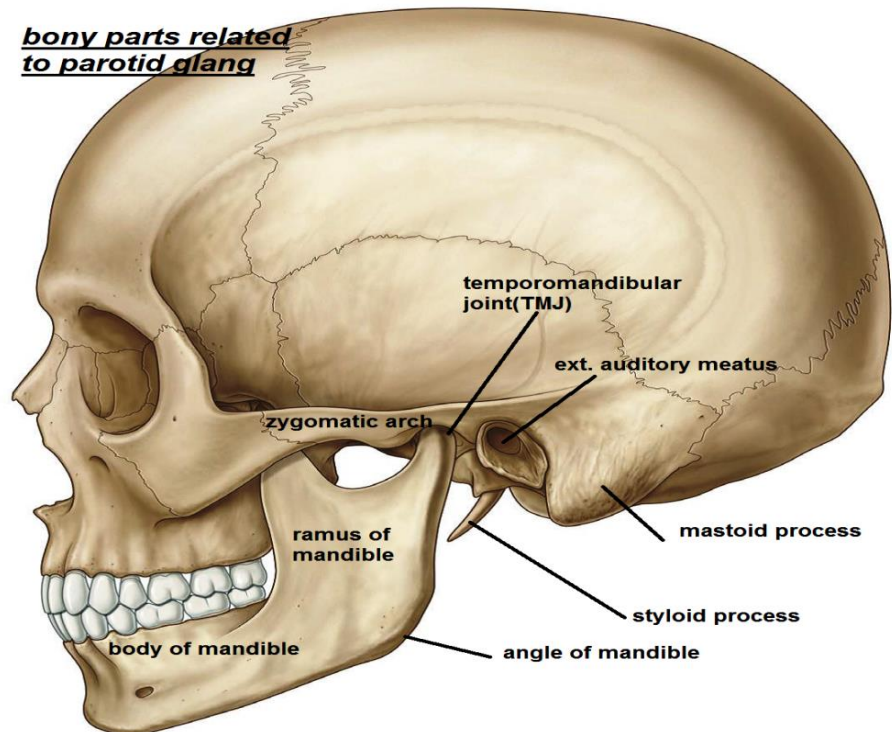
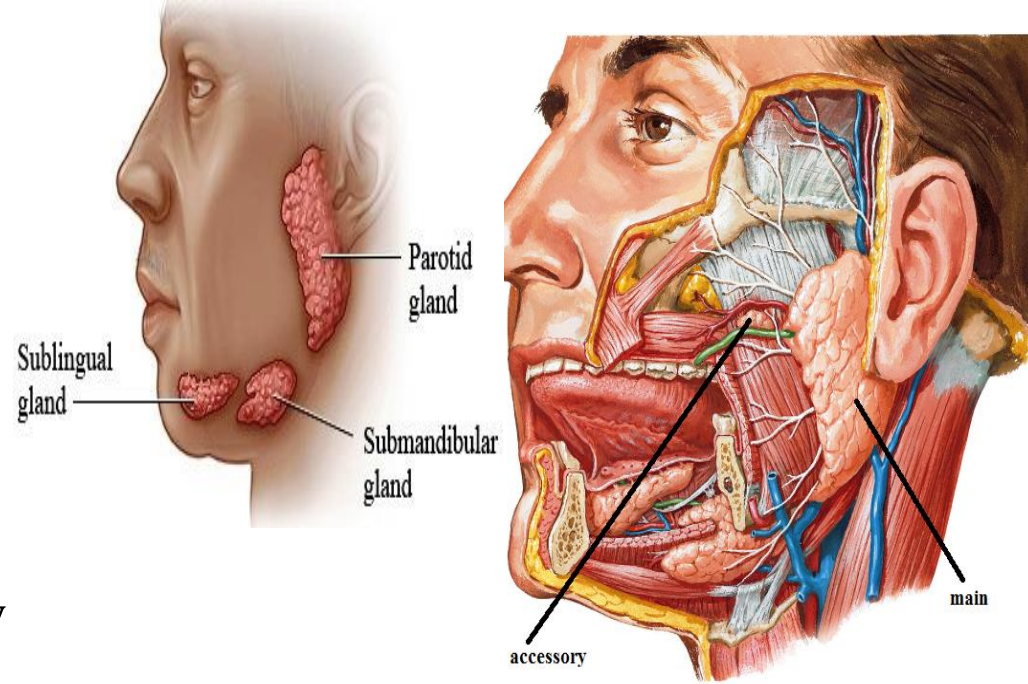
**position:** lies in the gap bounded by

**above:** ext. auditory meatus

**ant.:** ramus of mandible & its muscles

**post. :** mastoid process & its muscles

**medial:** styloid process & its muscles



# PAROTID GLAND

**shape:** inverted 3 sided pyramid with

**2 ends:** upper(base):concave  
lower(apex):rounded

**3 surfaces:** lateral (superficial)  
anteromedial (ant.)  
posteromedial(deep)

**3 borders:** ant. :convex  
post.  
medial



# PAROTID GLAND

## relations:

### structures inside:

1-ext. carotid art (deep).

-enter through posteromedial surface

-give 2 terminal brs

**maxillary art.** that emerge

from anteromedial surface

& **superficial temporal** gives **transverse facial a**

then emerge from upper end

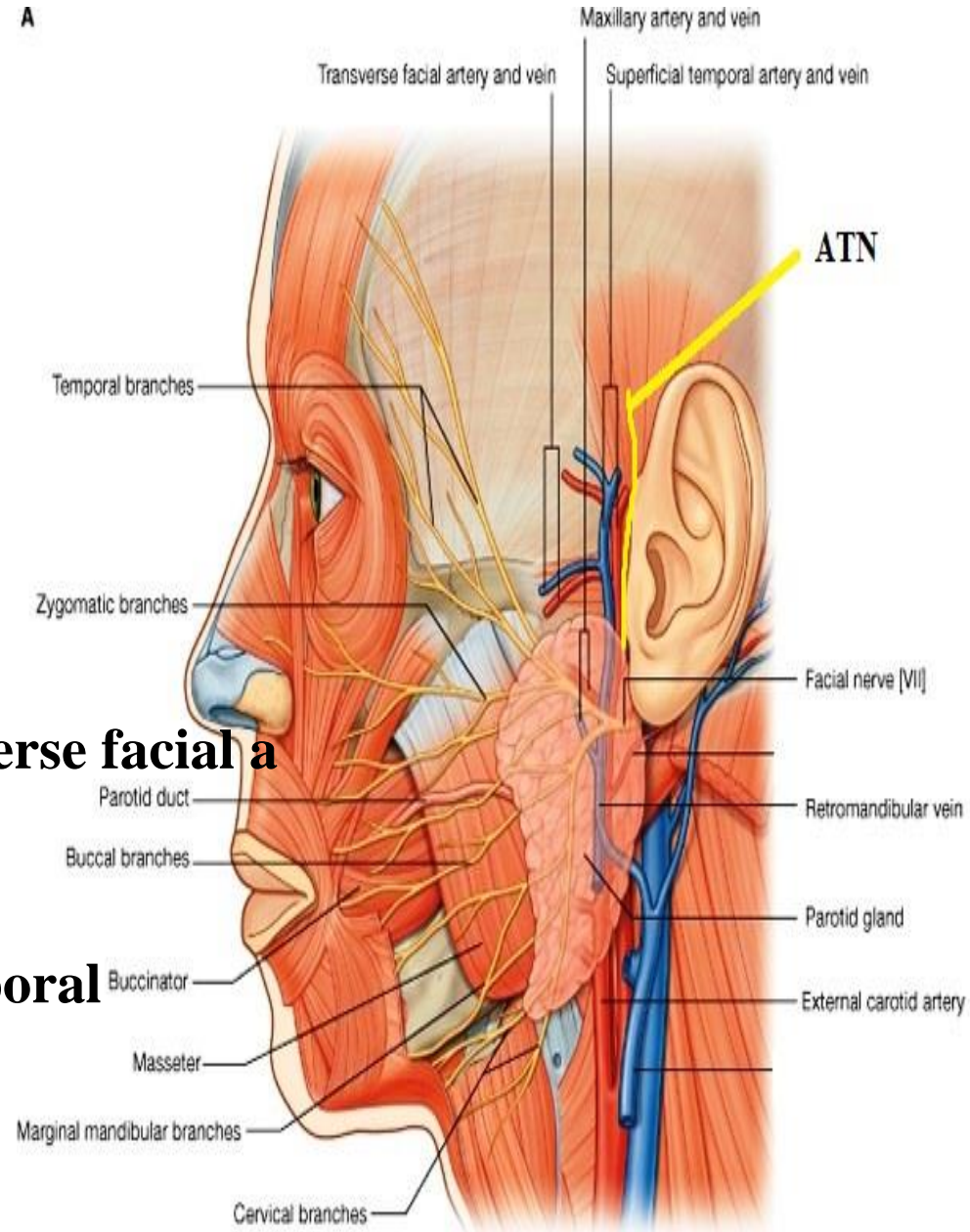
2- **retromandibular v. (intermediate).**

-formed by union of **superficial temporal**

with **maxillary veins**

-give ant.& post. Divisions

that emerge from lower end



# PAROTID GLAND

## relations:

### structures inside:

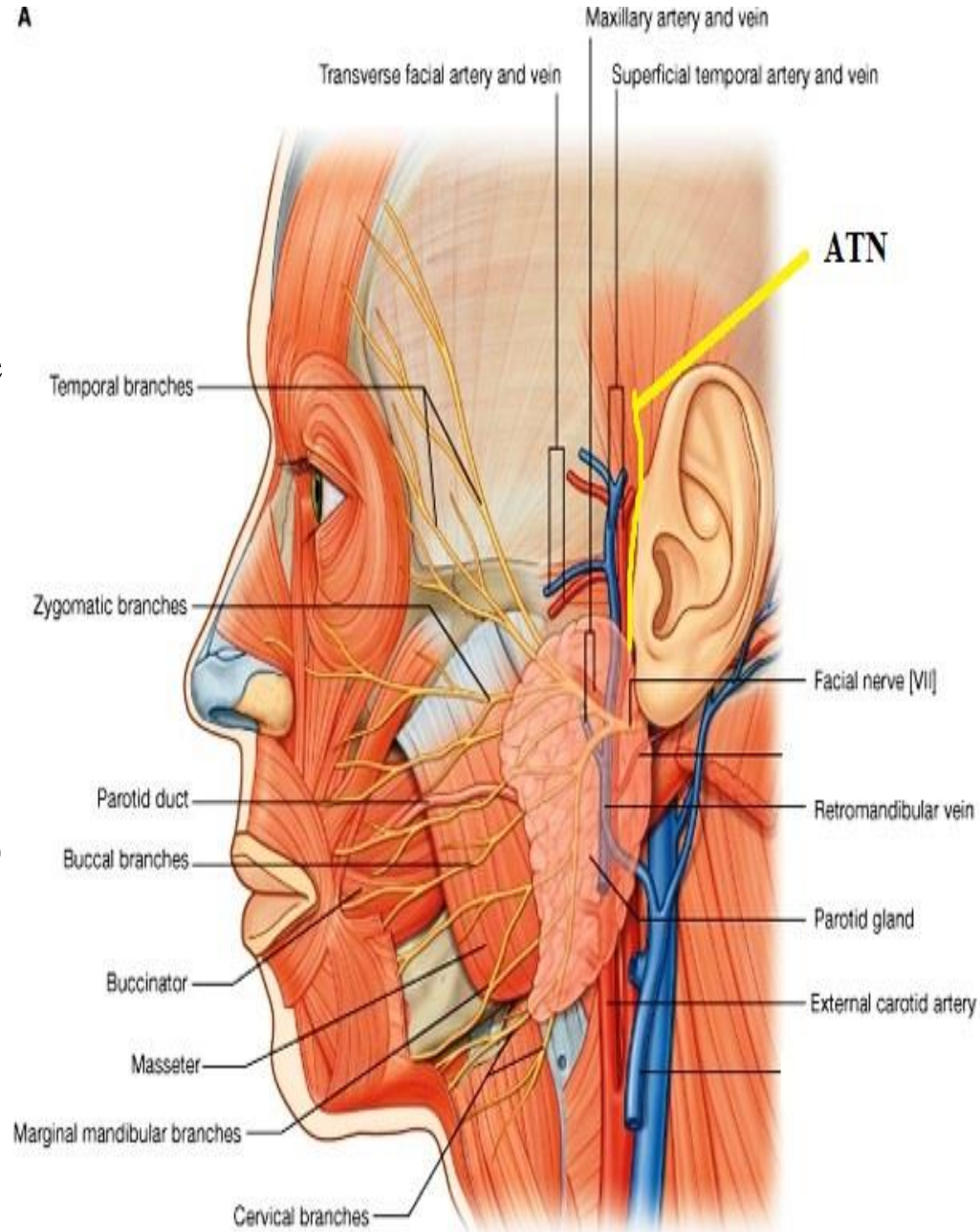
#### 3- facial n. (superficial).

- enter through posteromedial surface
- end in 5 terminal brs (temporal , zygomatic , buccal , marginal mandibular , cervical) That emerge from anterior border but (cervical br emerge from lower end)

#### 4- auriculotemporal n.

- pass through the upper end

#### 5- deep parotid L.Ns



# PAROTID GLAND

## relations:

upper end: related to: -ext. auditory meatus.

give passage to:

- auriculotemporal n.
- superficial temporal vessels (v.& art).

ant. border: related to: masseter.

give passage to.

temporal , zygomatic branches of facial n.

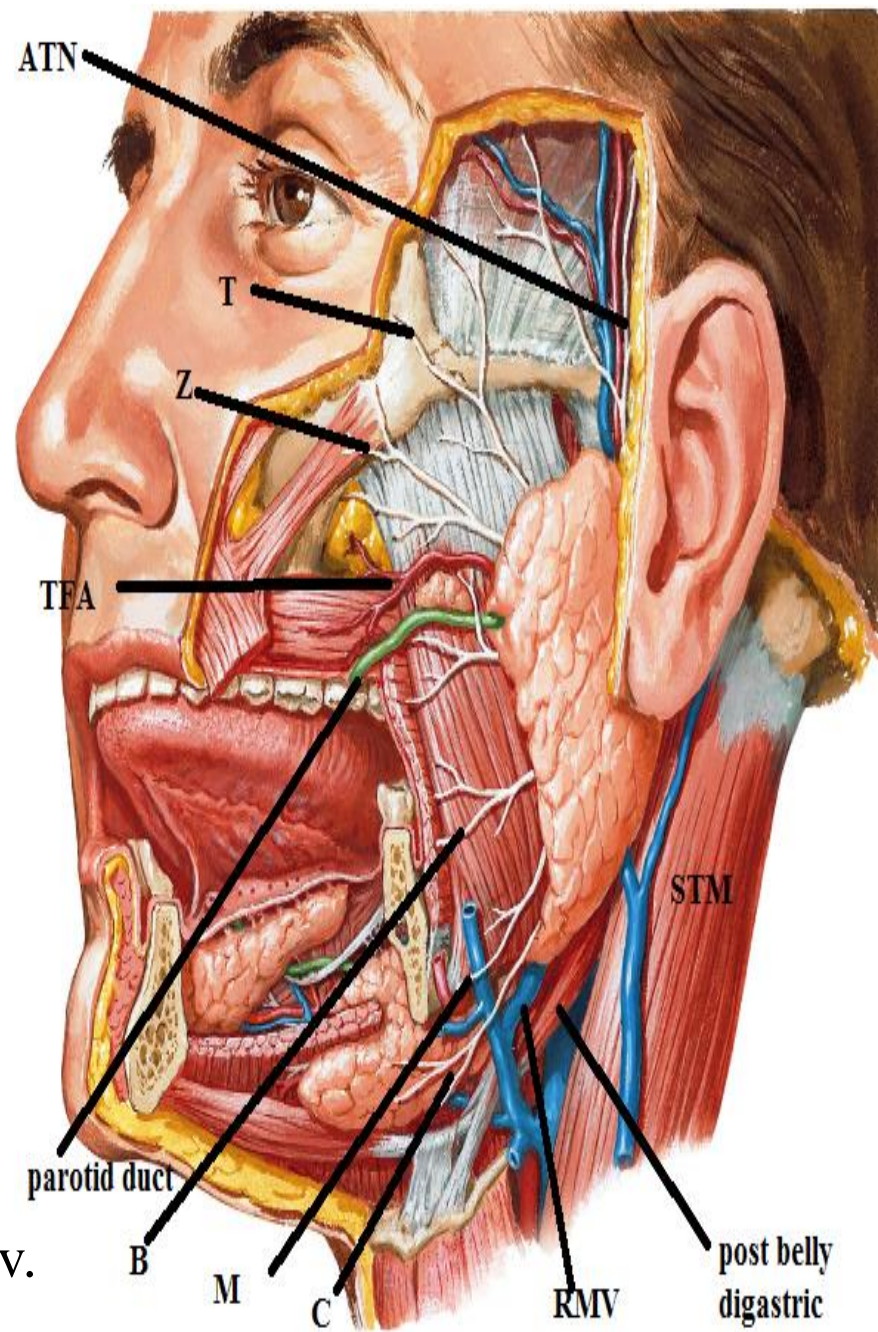
- transverse facial vessels
- parotid duct
- buccal , marginal mandibular of facial n.

lower end: related to post. belly of digastric

give passage to cervical branch of facial n.

-ant. & post. divisions of retro mandibular v.

post. border: related to sternomastoid



# PAROTID GLAND

## relations:

lateral surface:- related to

1-skin.

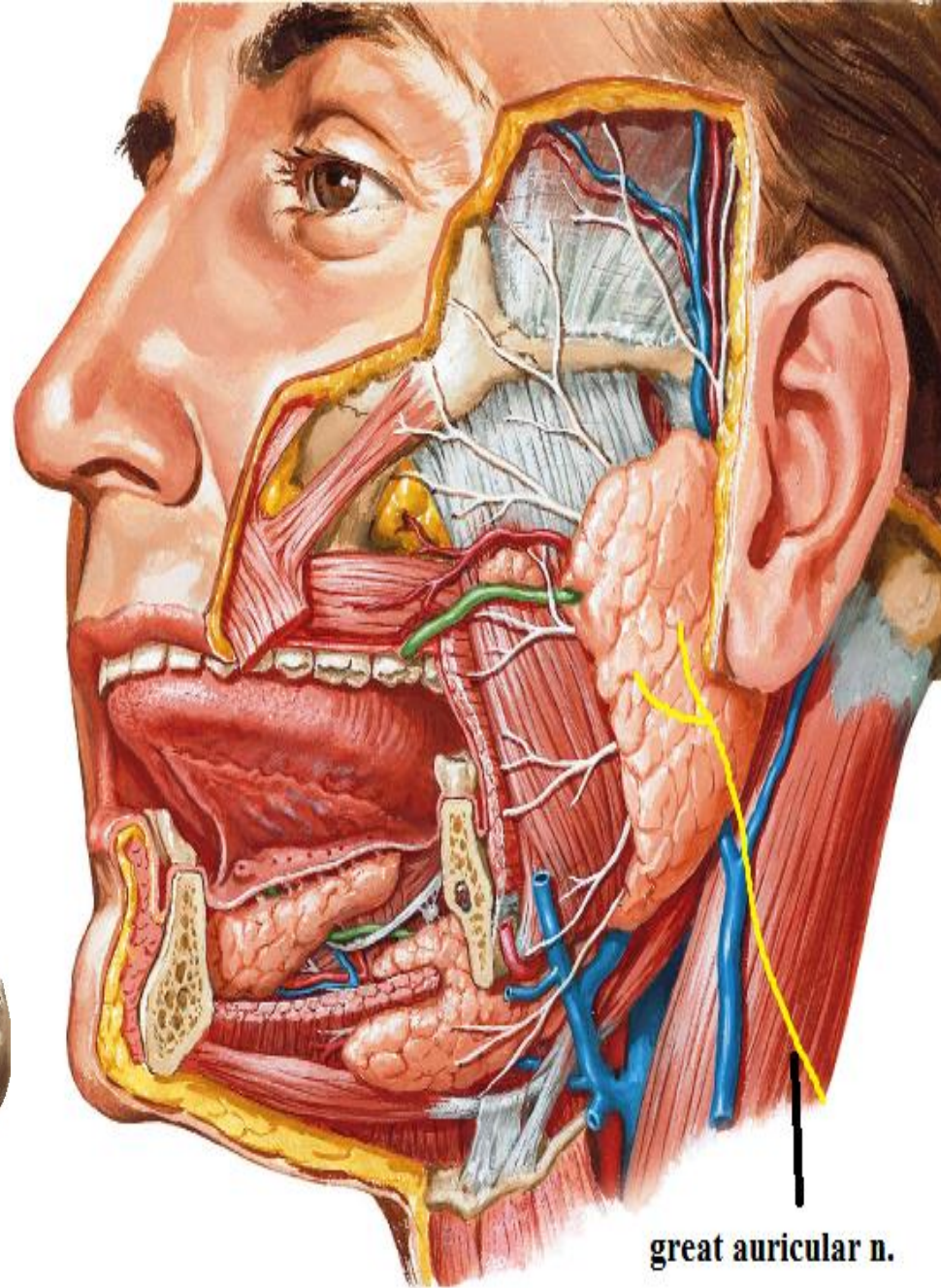
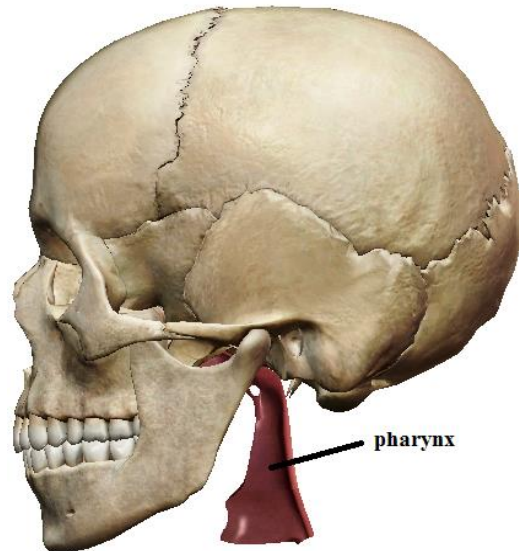
2-superficial fascia with:

-superficial parotid (preauricular) l.n.

-great auricular n.

-platysma.

medial border: related to pharynx



# PAROTID GLAND

## relations:

anteromedial surface:- related to

1-masseter. 2-ramus of mandible.

3-medial pterygoid

give passage to -maxillary vessels

posteromedial surface: related to

1-mastoid process &

-sternomastoid.-post belly of digastric.

2-styloid process & the attached structures

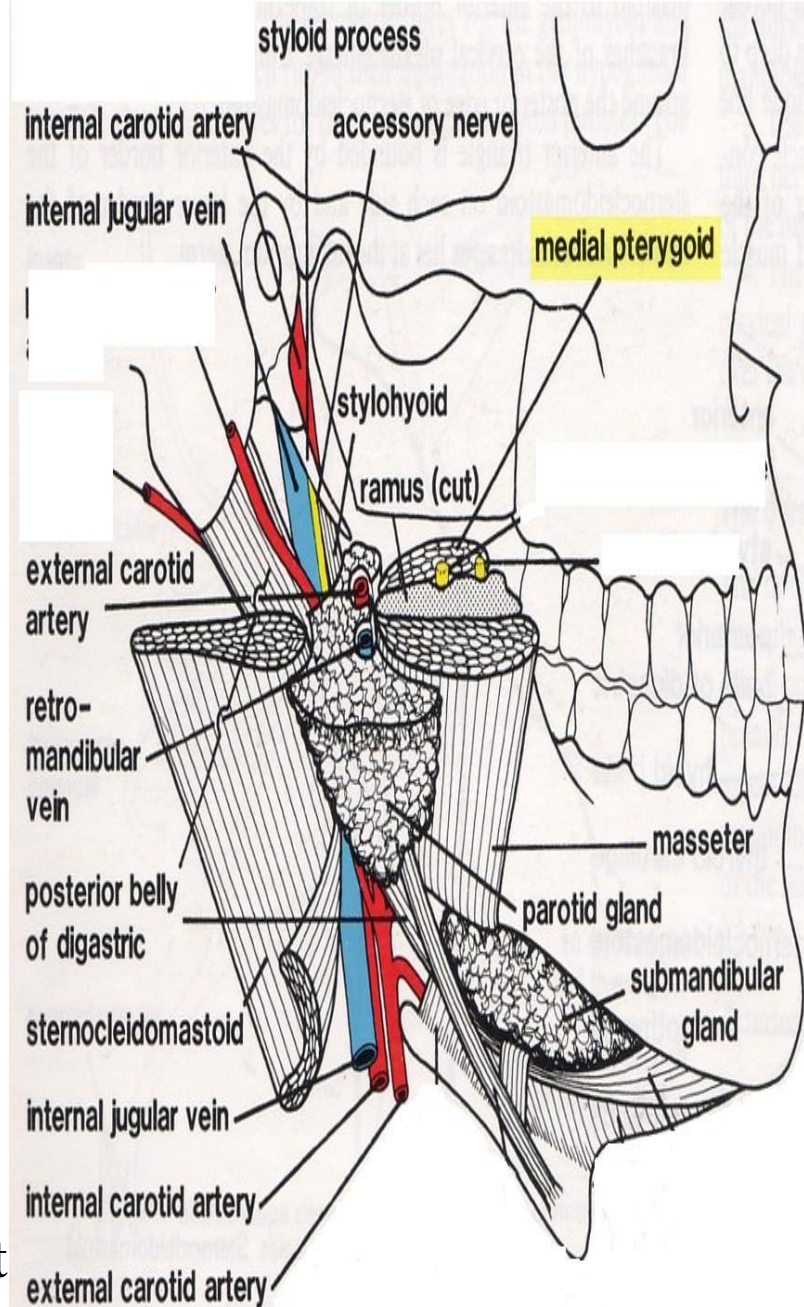
3-styloid process separate the surface from

Carotid sheath with:-int. carotid art.

-int jugular v.

Last 4 nerves:

gives passage to: -facial n. & -ext. carotid art



# PAROTID GLAND

parotid duct: (stensen's duct)

-5 cm

-emerge from middle of ant border.

-pass forward:

superficial to masseter

Above the buccal branch of facial n.

below accessory part of the gland

& tr. facial art.

-after crossing ant. border of masseter

it curves medially piercing.

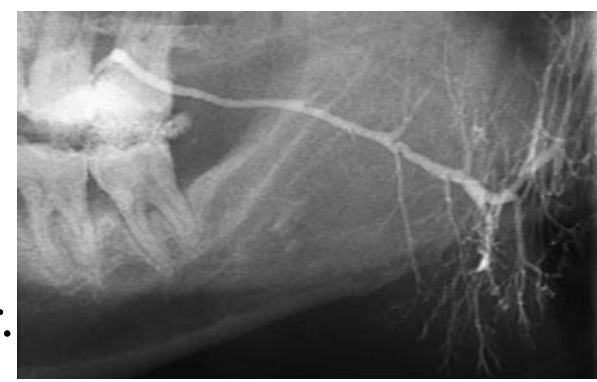
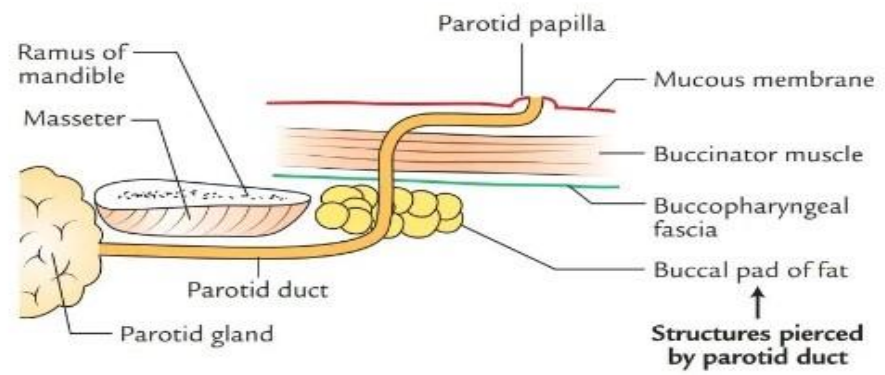
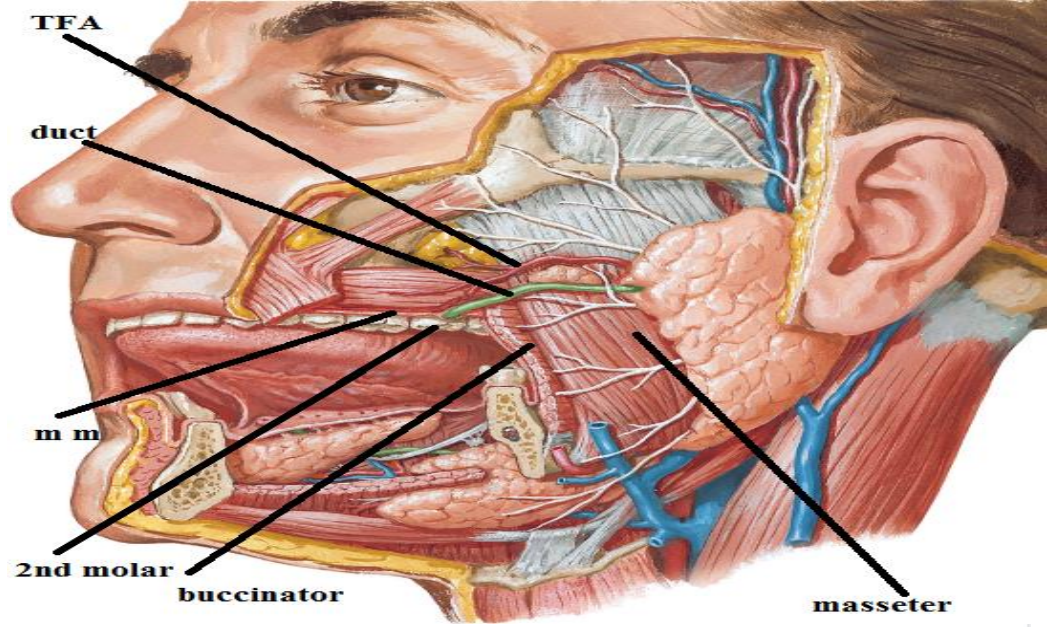
buccal pad of fat. buccopharyngeal fascia.

buccinator. buccal m. m.

- After piercing the buccinator it runs forward

( ) it & buccal m. m.

-open in vestibule of mouth opposite upper 2nd molar.



# PAROTID GLAND

## **capsule:**

**Inner capsule:-** condensed fibrous tissue

## **Outer capsule**

**derived from:** investing fascia of Neck

**layers:**

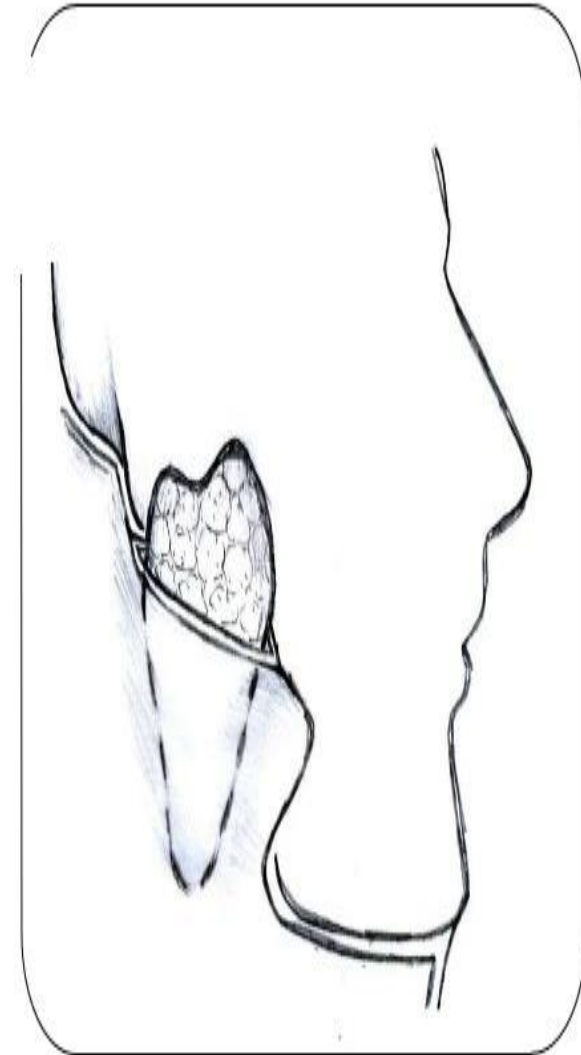
## **superficial:**

on superficial surface. It attach to zygomatic arch

**deep:** on inner surfaces.

The part of this layer that extends ( ) the styloid process & angle of mandible is thickened forming stylomandibular lig.

## Capsule



# PAROTID GLAND

## Surface anatomy:

main part: 4 points:

1-at head of mandible in front tragus.

2-center of mastoid process.

3-point below & behind angle of mandible by 2 cm

4-center of masseter.

upper end: Line Concave upward between 1 & 2.

post. border: Line between 2 & 3

lower end: 3

ant. border: line between 3,4 & 1

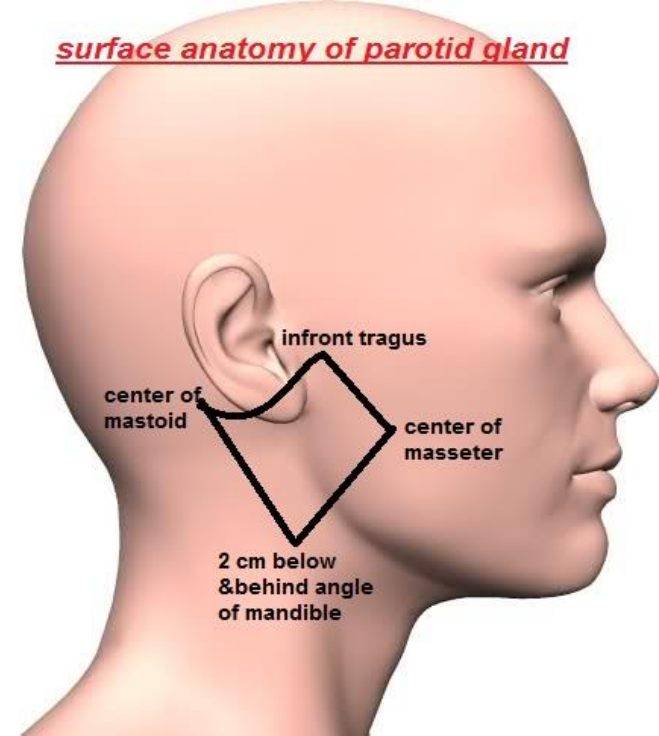
## parotid duct:

middle 1/3 of line between

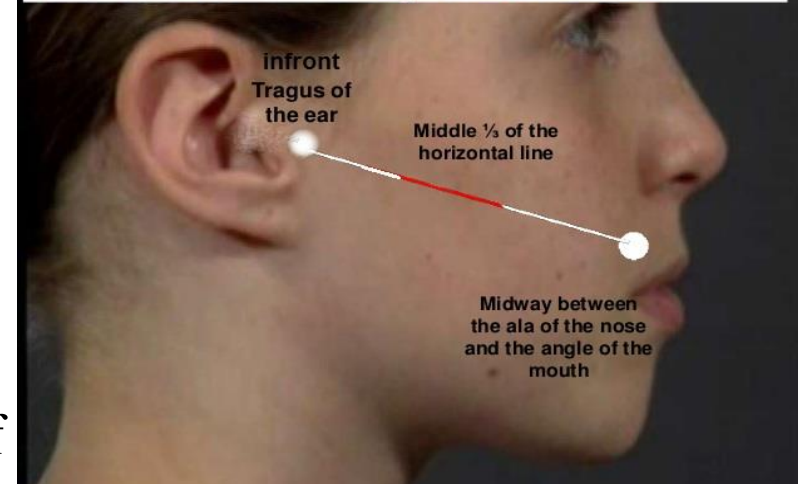
-tragus.

-point midway between ala of nose & angle of mouth.

## surface anatomy of parotid gland



## Surface Anatomy of Parotid Duct



# PAROTID GLAND

**arterial Supply:**

ext. carotid art.

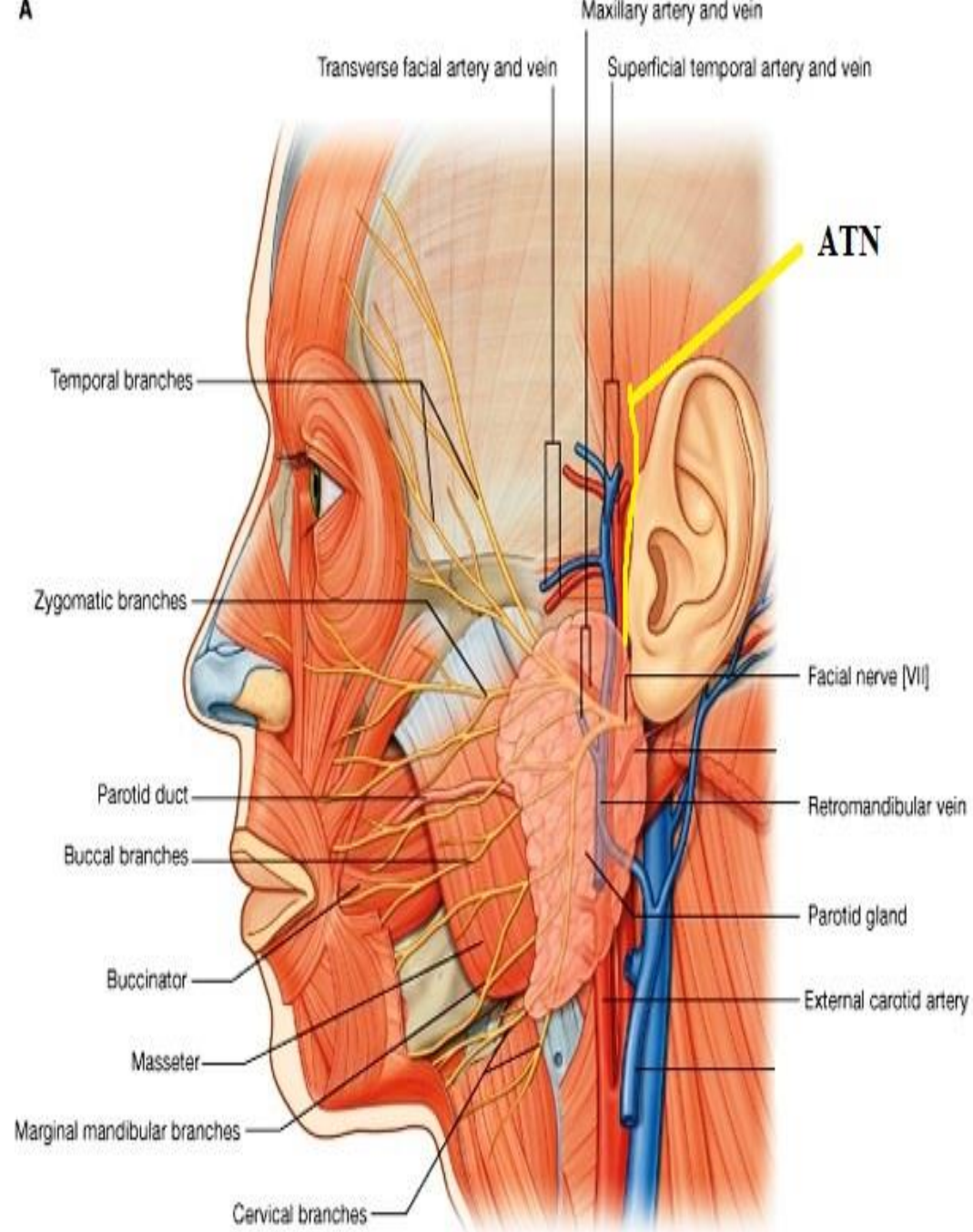
**venous drainage:**

retromandibular v.

**lymphatic drainage:**

superficial & deep parotid L.Ns.

deep cervical L.Ns



# PAROTID GLAND

nerve supply:

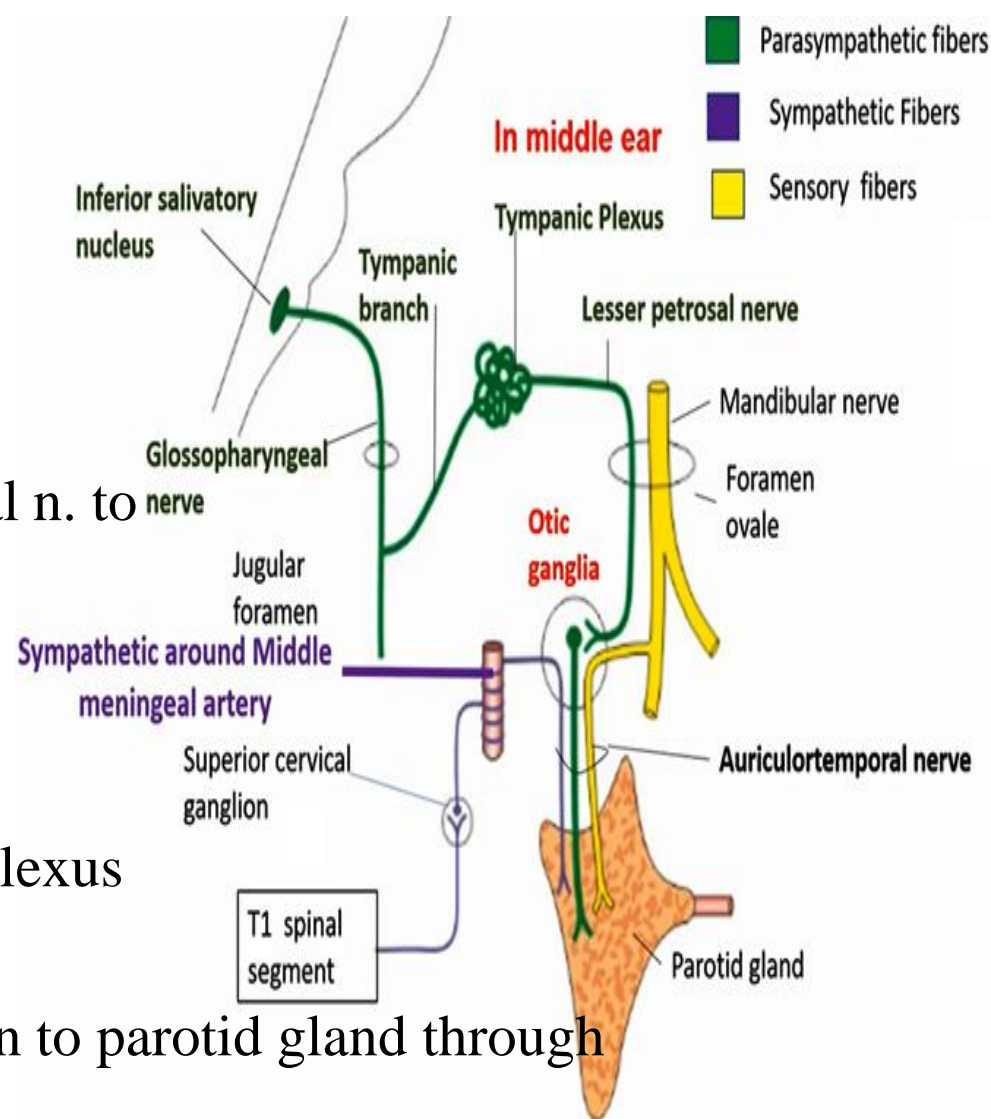
parasymp. (secretomotor, secretory):

from inferior salivary nucleus to  
glossopharyngeal n. to  
tympanic br. of glossopharyngeal n. to  
tympanic plexus to  
lesser petrosal n. to  
otic ganglion to  
auriculotemporal nerve

sympathetic: from middle meningeal plexus

sensory: from auriculotemporal n.

so, these fibers pass from otic ganglion to parotid gland through  
auriculotemporal n.



N. B: the capsule of the gland is supplied by great auricular n.

# PAROTID GLAND

applied anatomy:

## Mumps

The parotid capsule is very tight, and so in inflammation of the gland (e.g. mumps), the edema causes stretch of capsule leading to severe pain due to irritation of great auricular n. . The pain increases in eating due to increased salivation and movement of mandible.

The pain is referred to auricle due to similarity in nerve supply

## Frey's Syndrome

Flushing and sweating in the cutaneous innervation of auriculotemporal nerve in response to taste of food



parotitis (mumps)

THANQ