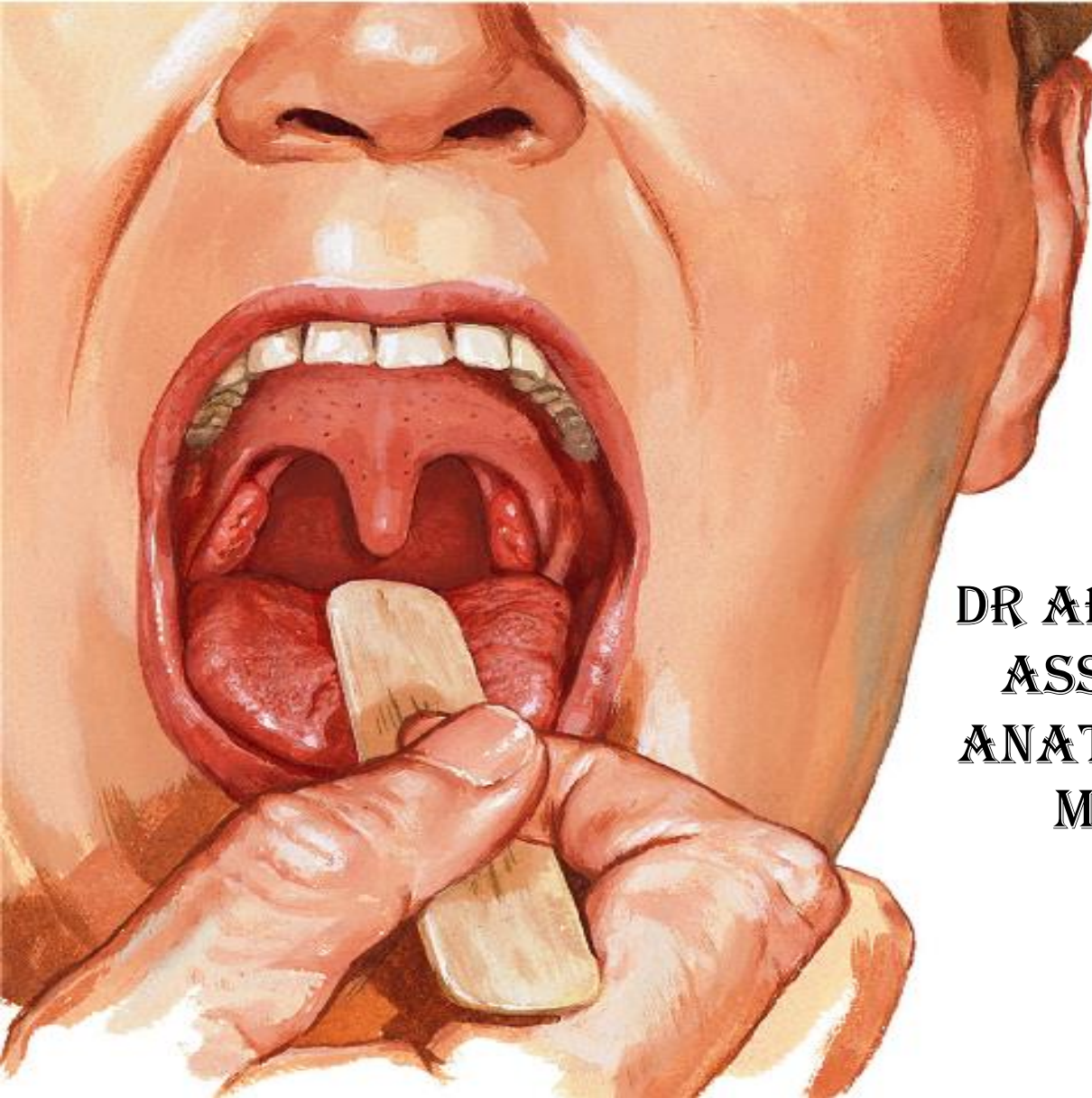


ORAL CAVITY , TONGUE & PALATE



BY

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ORAL CAVITY

Boundaries:

Anterior oral opening=oral fissure

opens on the face and bounded by lips

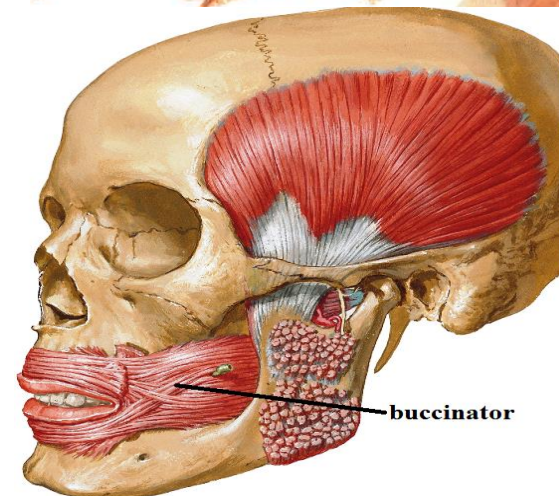
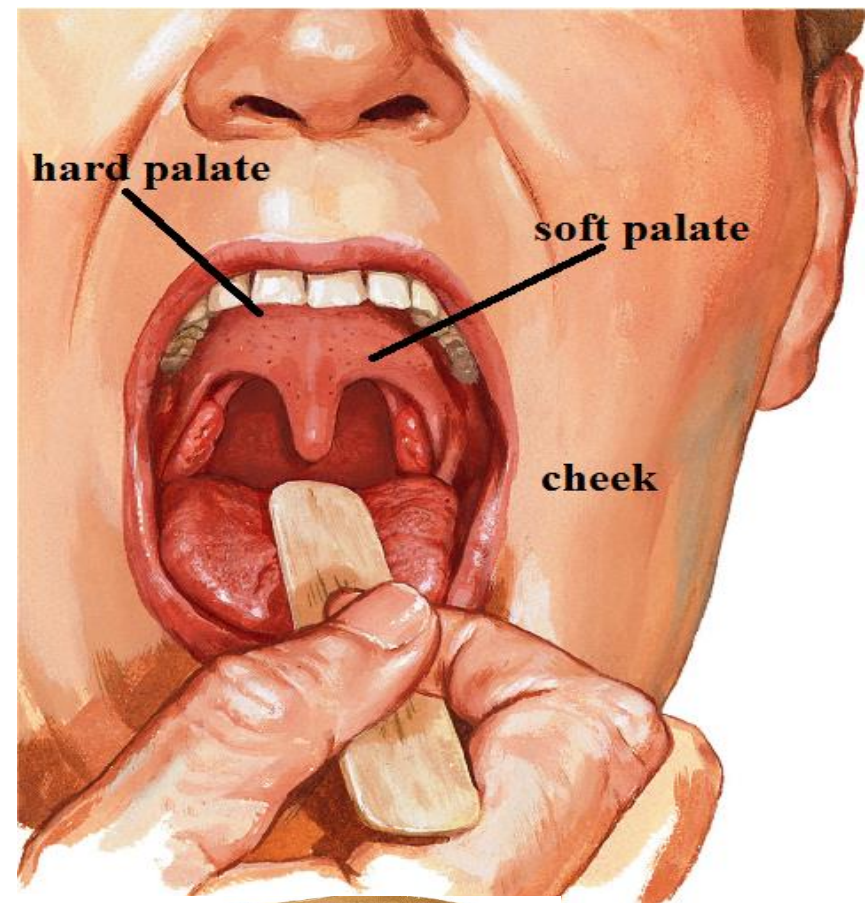
The lateral wall

Is formed by the cheek

Each cheek is formed mainly
by buccinator muscle

The roof

is formed of hard and soft palate



ORAL CAVITY

Boundaries:

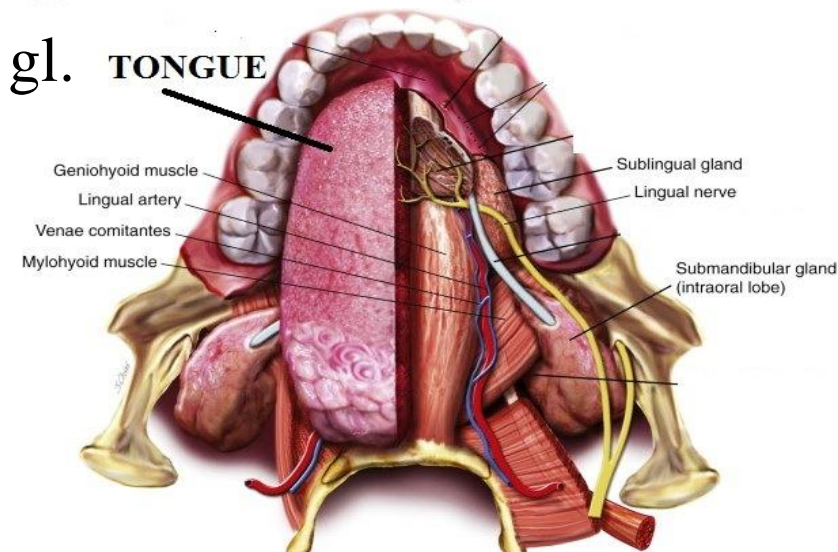
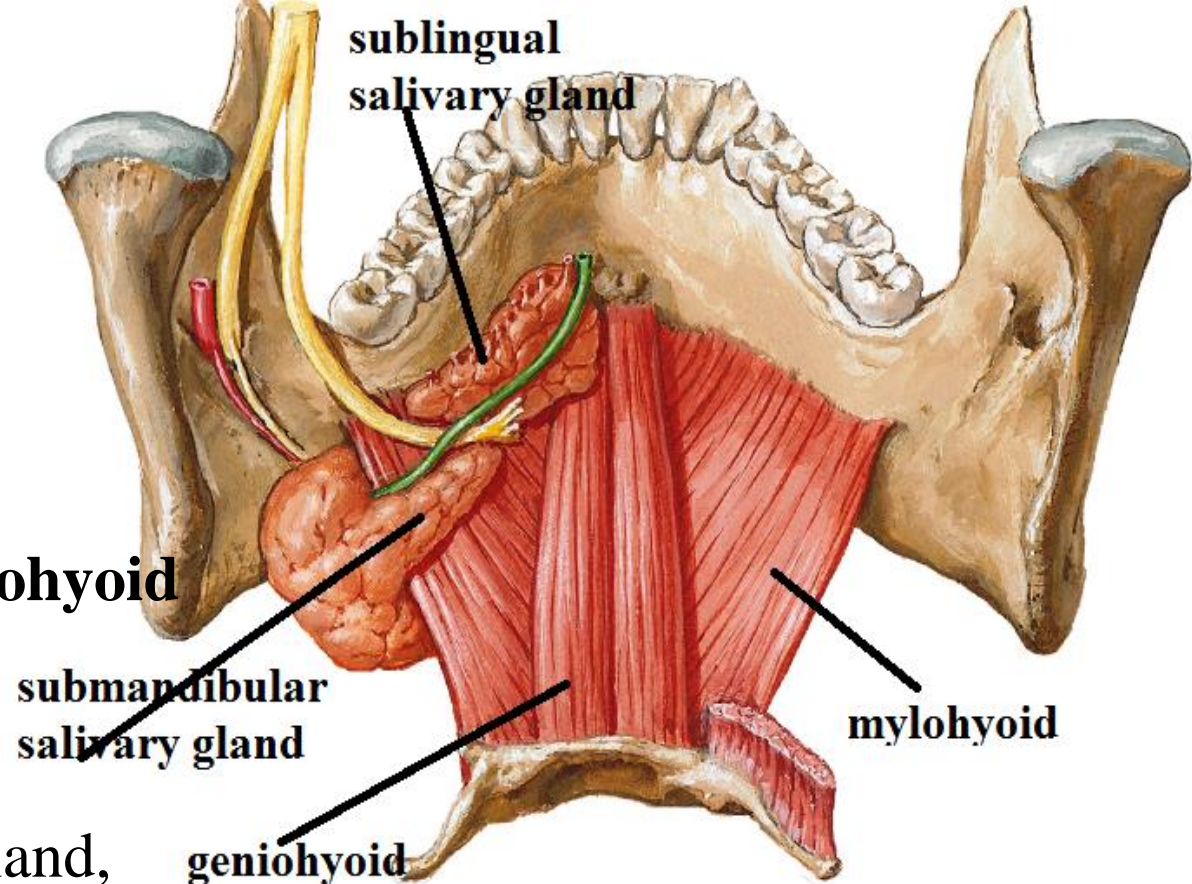
The floor:

is formed mainly by

- 2 mylohyoid muscles and
- the structures above mylohyoid

which includes:

- Geniohyoid,
- sublingual salivary gland,
- deep part of submandibular salivary gl.
- tongue (with most of its muscles, vessels and nerves).



ORAL CAVITY

Boundaries:

The floor:

Below the tongue the floor shows the following features:

- **Lingual frenulum**

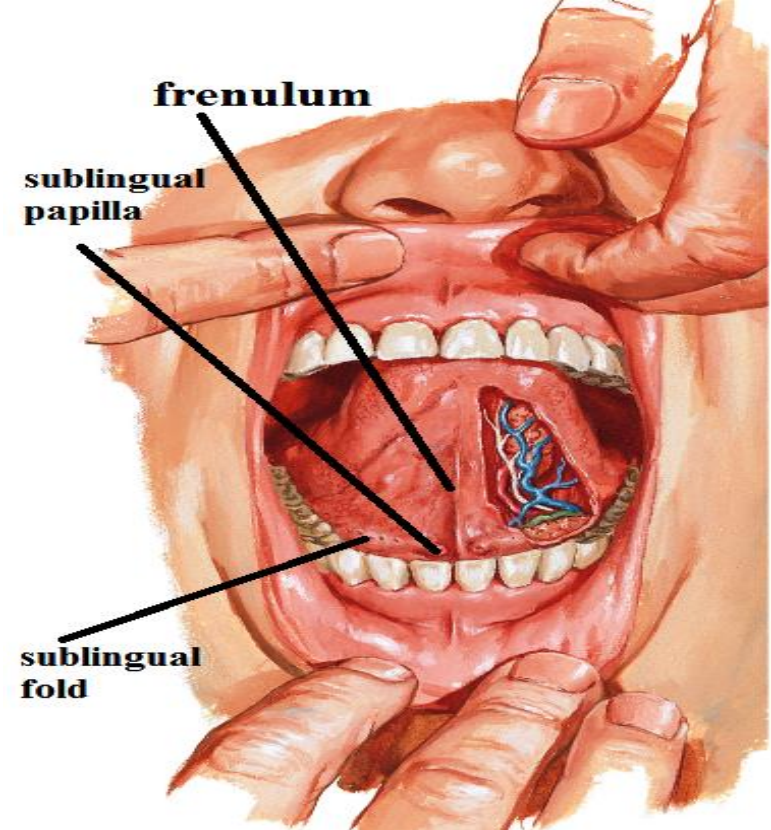
midline fold of mucous membrane connects the floor with the undersurface of tongue.

- **Sublingual papilla**

on the side of lingual frenulum at its attachment to the floor. for opening of submandibular duct

- **Sublingual fold:**

just lateral to the papilla, it is raised by sublingual salivary gland and receives the openings of most of the ducts of the gland.



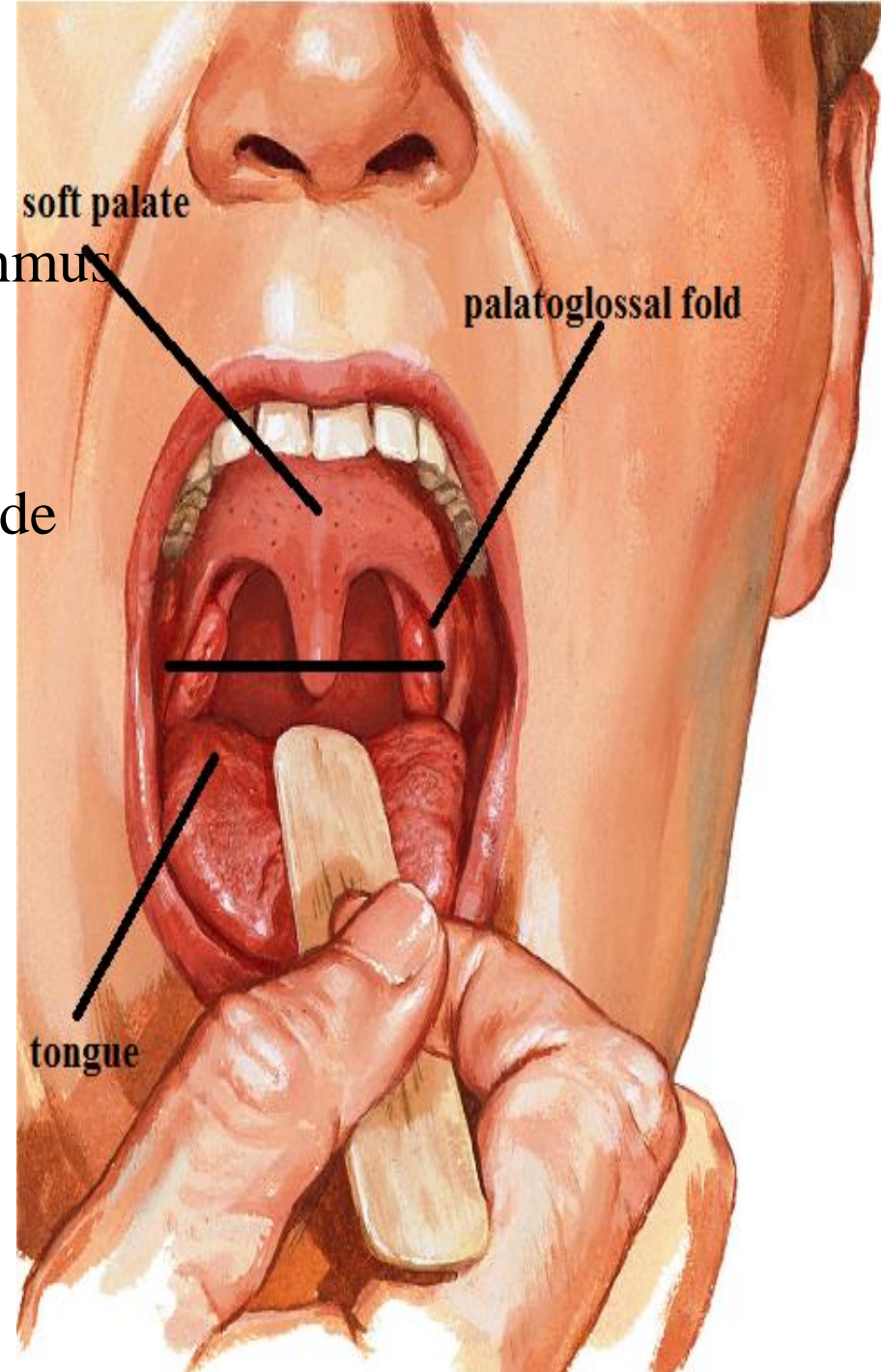
ORAL CAVITY

Boundaries:

Posterior opening = oropharyngeal isthmus
open into the oropharynx

bounded by:

- Palatoglossal arch (fold): on each side
- Soft palate above,
- Tongue below,



ORAL CAVITY

Parts

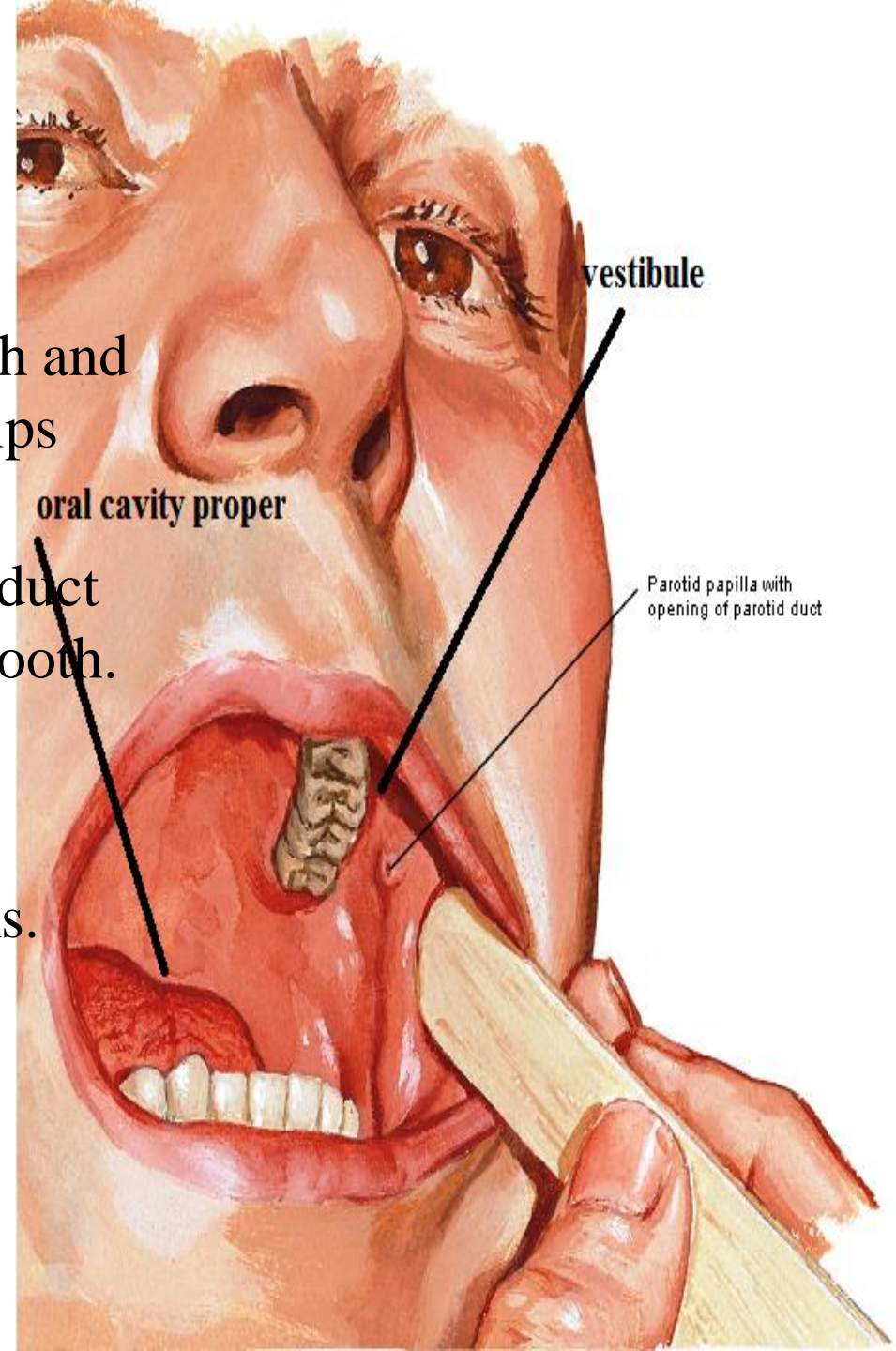
1- Vestibule:-

- the part of the cavity between teeth and gums internally and cheeks and lips externally.
- It receives the opening of parotid duct opposite the upper second molar tooth.

2- Oral cavity proper:

rest of oral cavity

i.e the part internal to teeth and gums.



TONGUE

Definition:

a mass of skeletal muscles covered by mucous membrane.

Parts: -

Oral part: ant. 2/3 lies in the floor of oral cavity

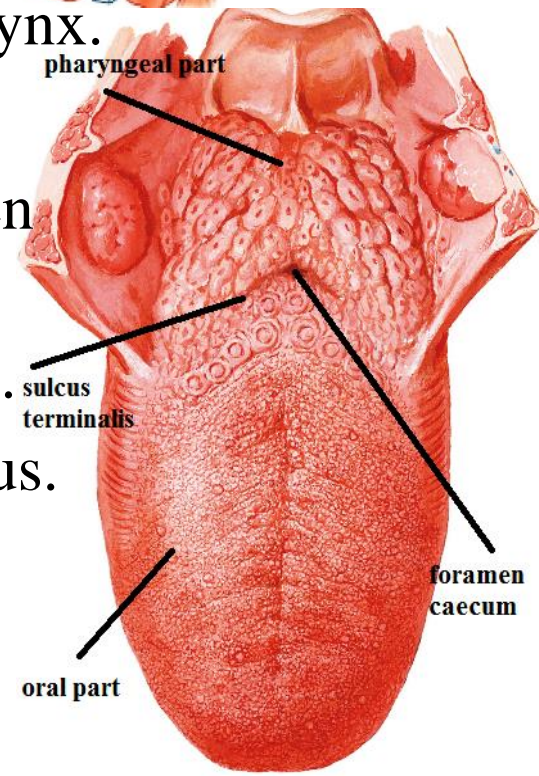
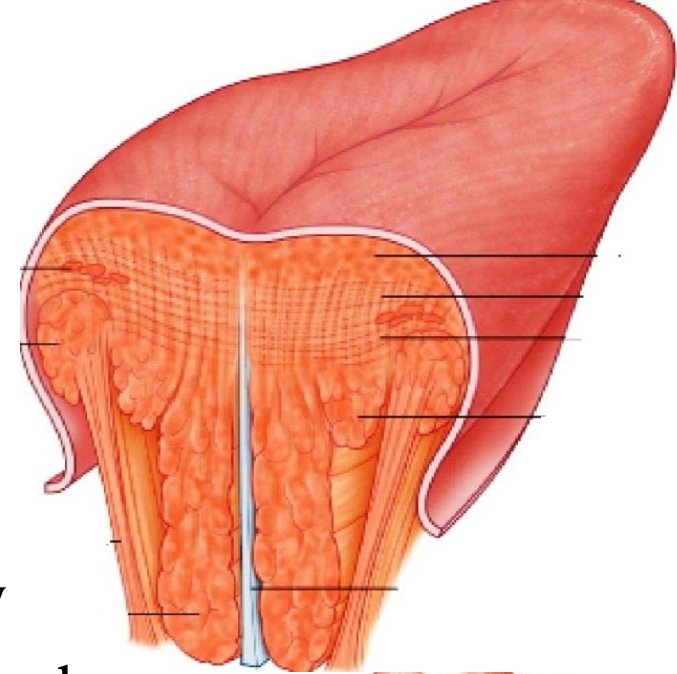
Pharyngeal part: post. 1/3 lies in ant. wall of oropharynx.

Sulcus terminalis :

-It is v- shaped sulcus that marks the junction between ant. 2/3 and post. 1/3 of tongue.

-lies on sup. Surface and its apex directed backwards.

-Foramen caecum: depression at the apex of the sulcus.



TONGUE

Oral part of tongue

-triangular in shape with the apex (tip of tongue) lies just behind the incisors.

-It has 2 surfaces.

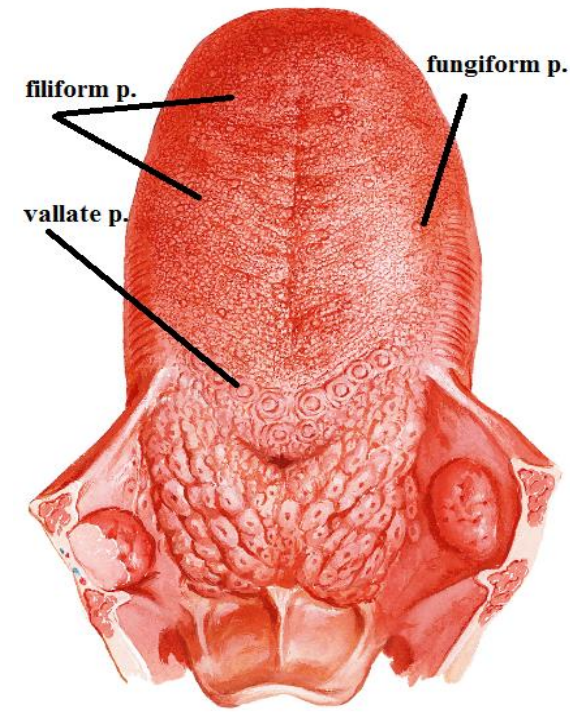
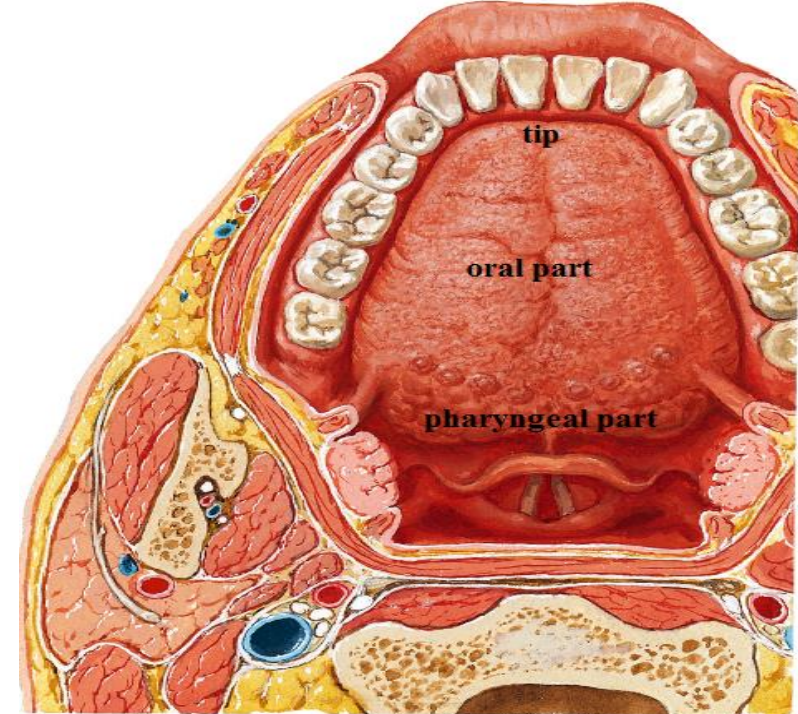
Sup. Surface: shows 3 types of papillae:

1-Filiform.

2-Fungiform

3-Vallate papillae: row of papilla in front of sulcus terminalis, it is large enough to be easily seen by naked eye.

-The papillae increase the surface area of mucous membrane of tongue and contains taste buds except filiform papillae has no buds.



TONGUE

Oral part of tongue

Inferior surface

-Has no papilla, but it shows.

-Lingual frenulum:

-Deep lingual vein: appears as a dark line lateral to frenulum.

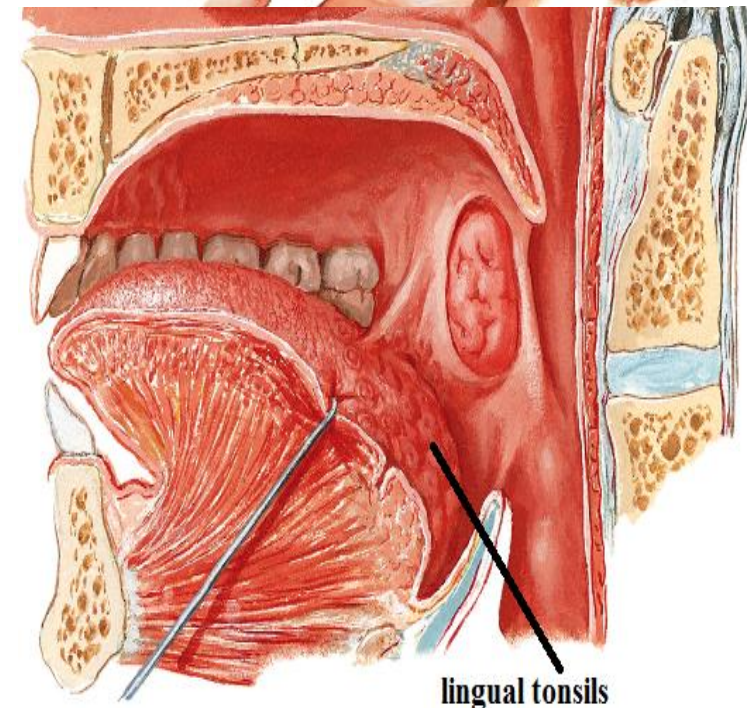
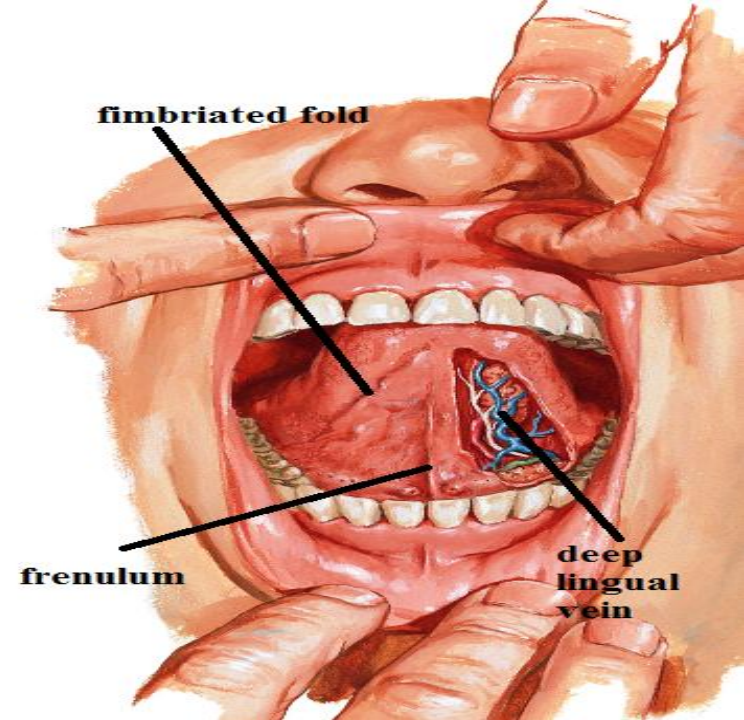
-Fimbriated fold: lateral to the vein.

Pharyngeal part of the tongue-

-It has only a pharyngeal surface which is continuous with sup. surface of oral part but it is nearly vertical

-It is irregular due to presence of nodules of lymphoid tissue in the submucosa (lingual tonsils).

-Has no papilla .

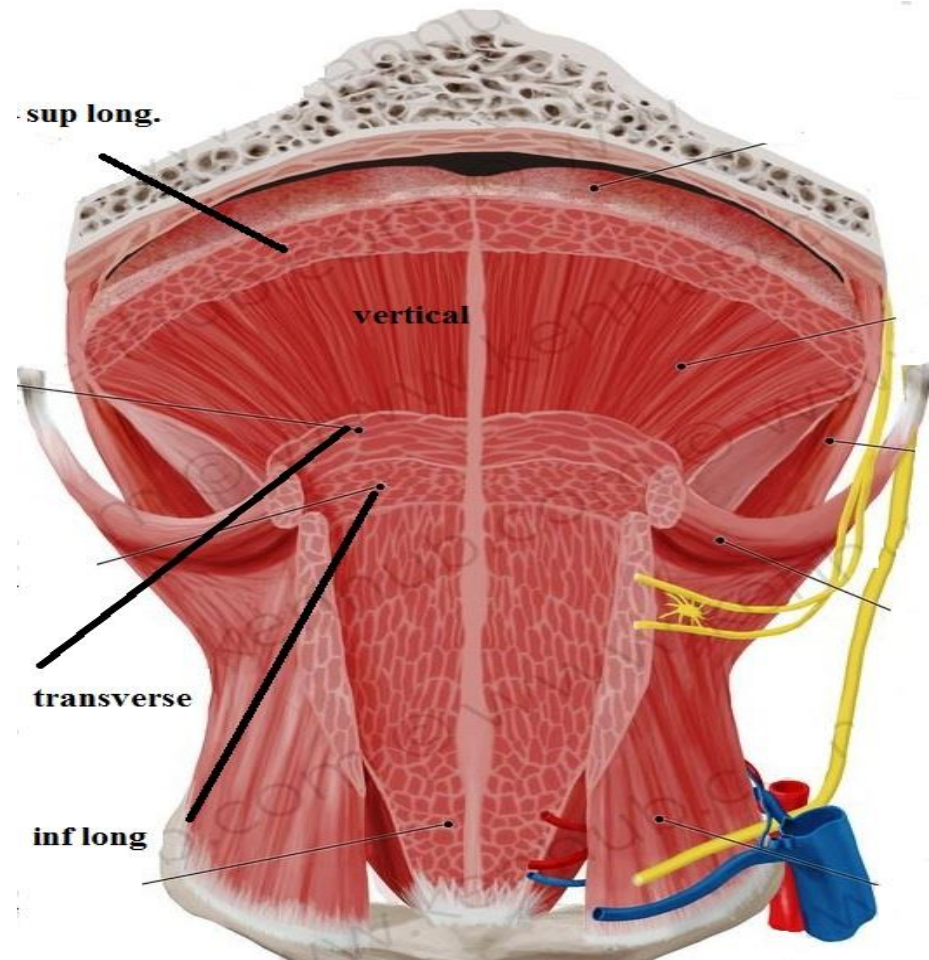


TONGUE

Muscles : intrinsic and extrinsic

Intrinsic muscles: -

- arise and end within the substance of tongue
- include: sup. longitudinal m.,
inf. longitudinal m.,
transverse m. and
vertical muscle.
- They alter the shape of tongue.



TONGUE

Muscles :

Extrinsic muscles:

arise outside the tongue and inserted into the tongue, these are

Genioglossus

O. :- Superior genial tubercle

I. :- whole length of lower surface of tongue -reach hyoid bone

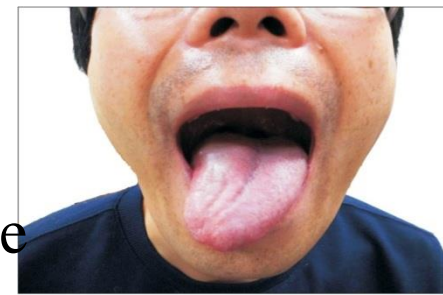
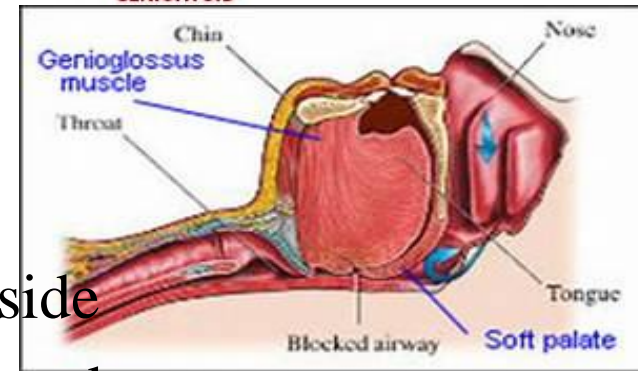
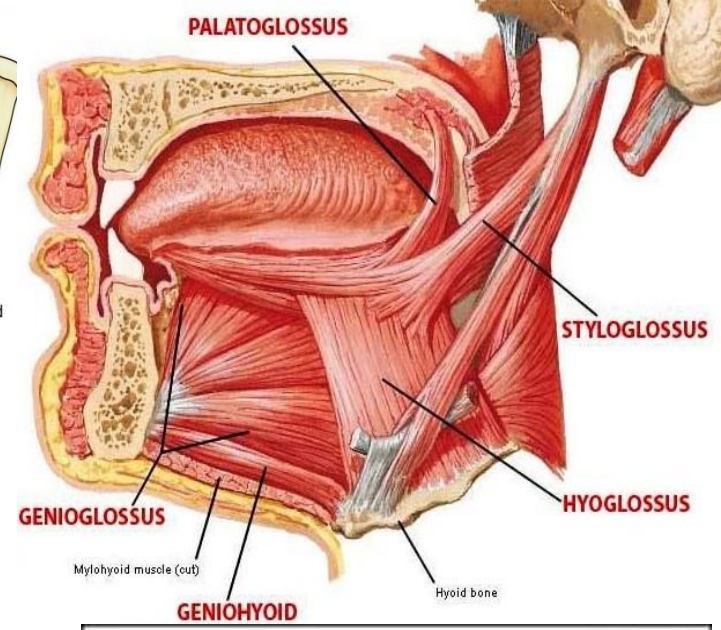
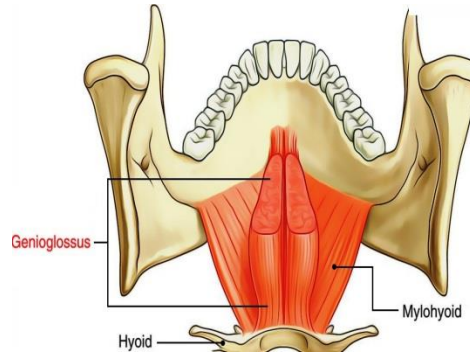
A. :- **one muscle** Protrudes tongue to opposite side
two muscle Protrudes tongue directly forward

by its tone prevent backward displacement of tongue during sleep

Styloglossus

O. :- - Styloid process

I. :- Side of tongue **A.** :- Retracts and elevates tongue



TONGUE

Muscles :

Extrinsic muscles:

Hyoglossus

O. :- hyoid bone

I. :- Post. 1/2 of side of tongue

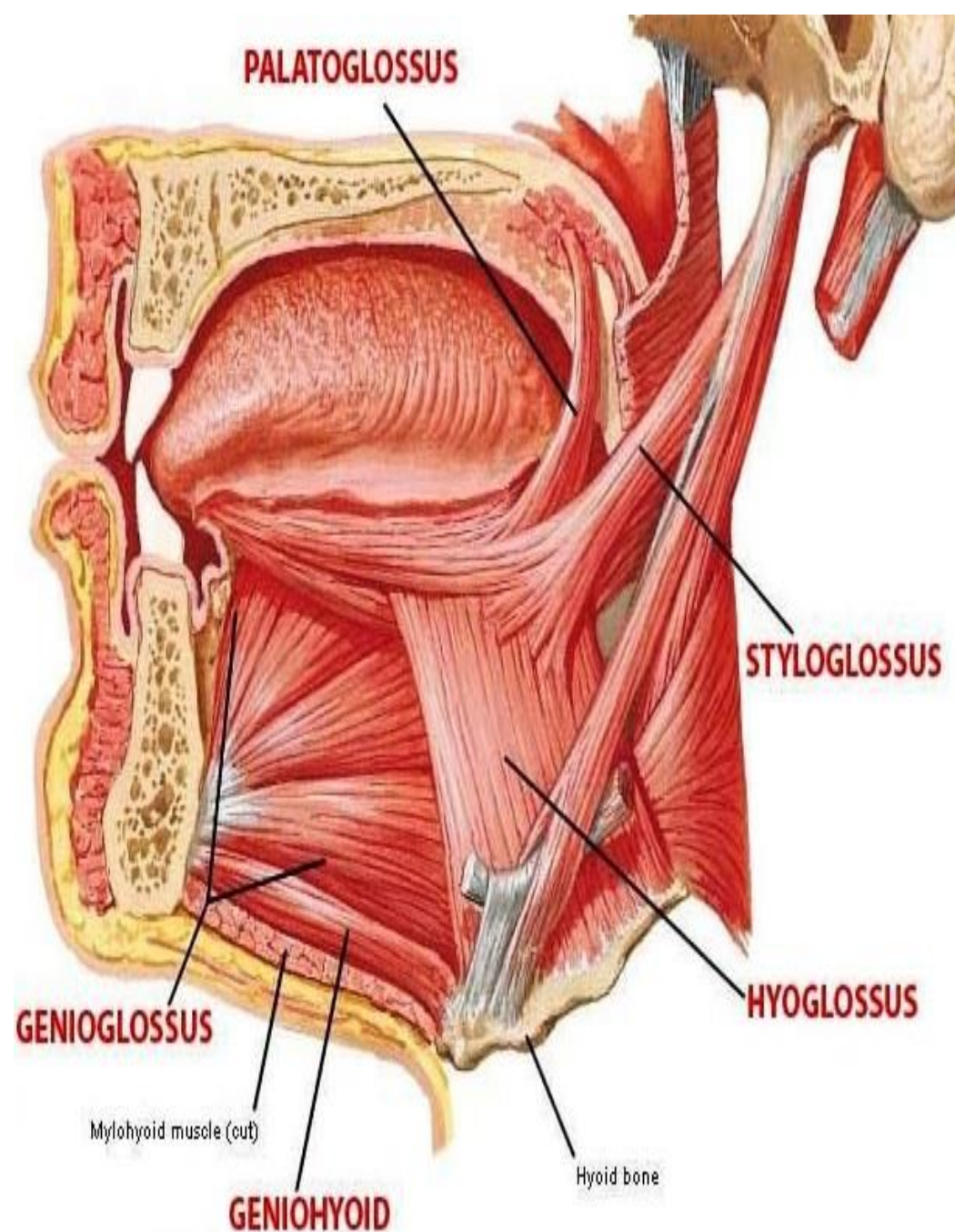
A. :- Depresses tongue

Palatoglossus

O. :- palate

I. :- side of tongue
(at junction between
ant 2/3 and post. 1/3)

A. :- Elevates tongue
depresses palate



TONGUE

Blood supply :

Arterial supply:- Mainly by lingual artery

Venous drainage: it is drained by 2 veins.

1 -Deep lingual vein:

2-Dorsal lingual vein:

Both veins end in IJV

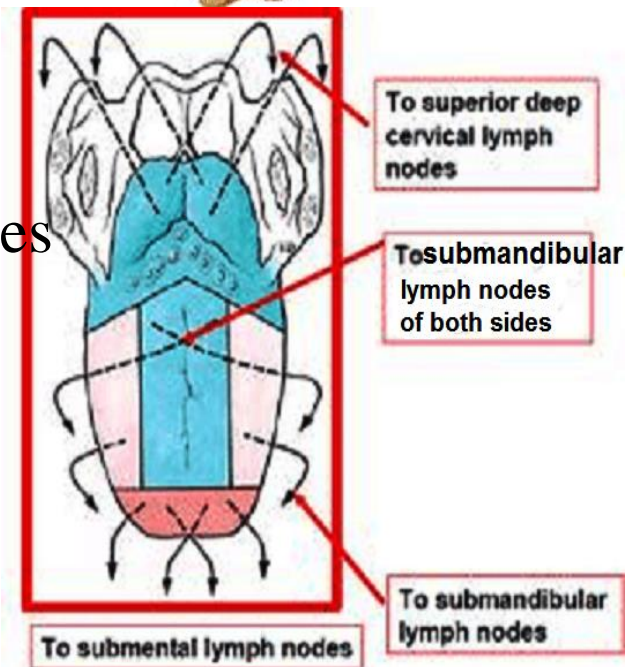
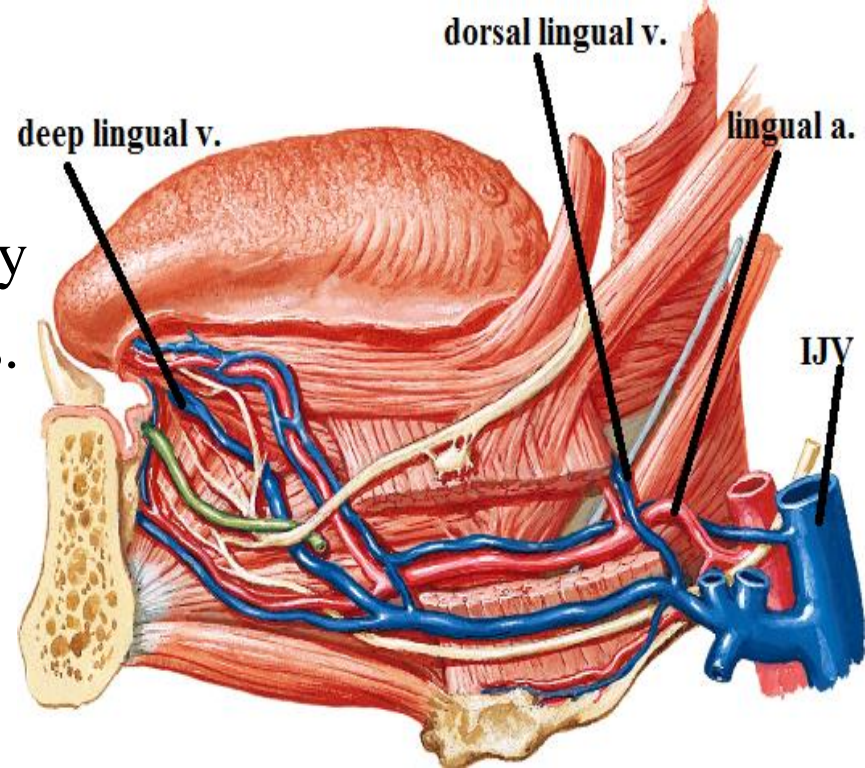
Lymphatics: it drains to

-**Tip:-** to Submental lymph nodes.

-**Sides :-** to Submandibular L.N. of the same side

-**Central part :-** to Submandibular L.N. of both sides

Posterior part:- to Deep cervical L.N.



TONGUE

Nerve supply :

Motor: all muscles (extrinsic and intrinsic) are supplied by hypoglossal nerve except palatoglossus which is supplied by cranial part of accessory n through vagus.

Sensory:

-Ant. 2/3:

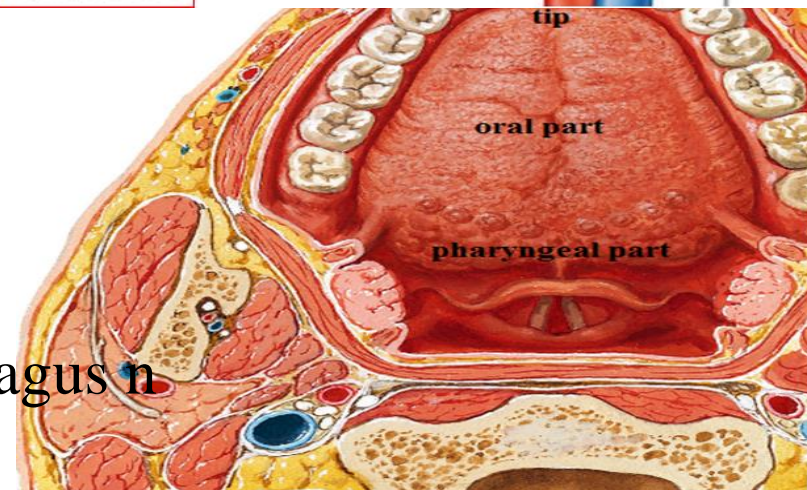
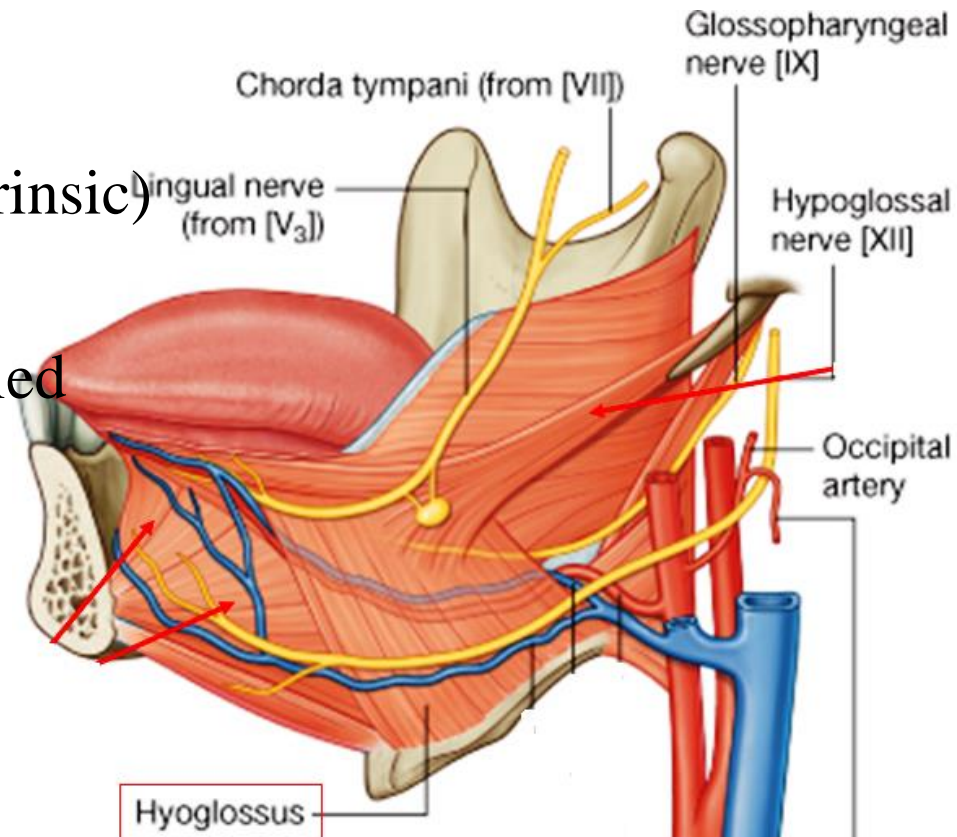
General sensation:- lingual nerve

taste sensation:- chorda tympani n.

Post. 1/3: general & taste sensation

by glossopharyngeal nerve

-**Most lower part of pharyngeal part:** by vagus n



PALATE

Soft palate

Def.:- it is a fold of mucous membrane filled with muscle extending posteriorly from hard palate.

Surfaces and borders:

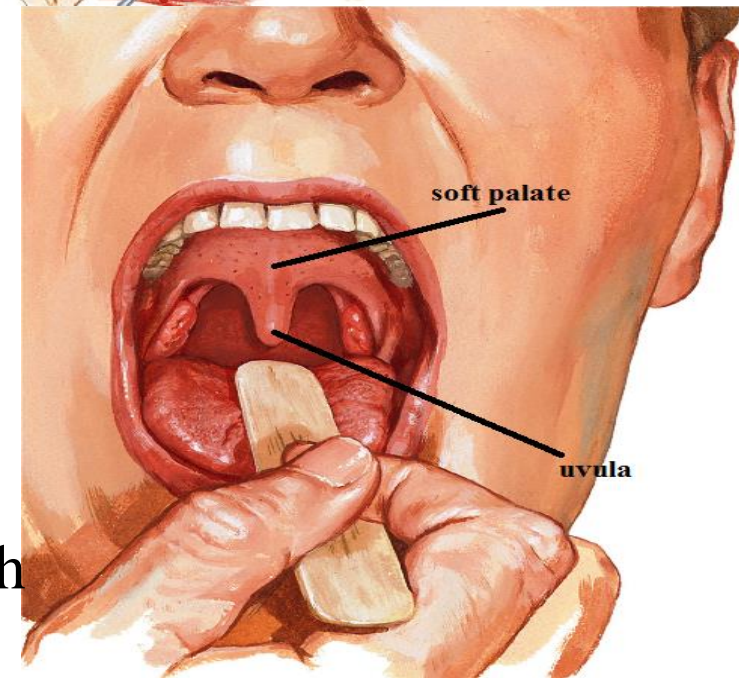
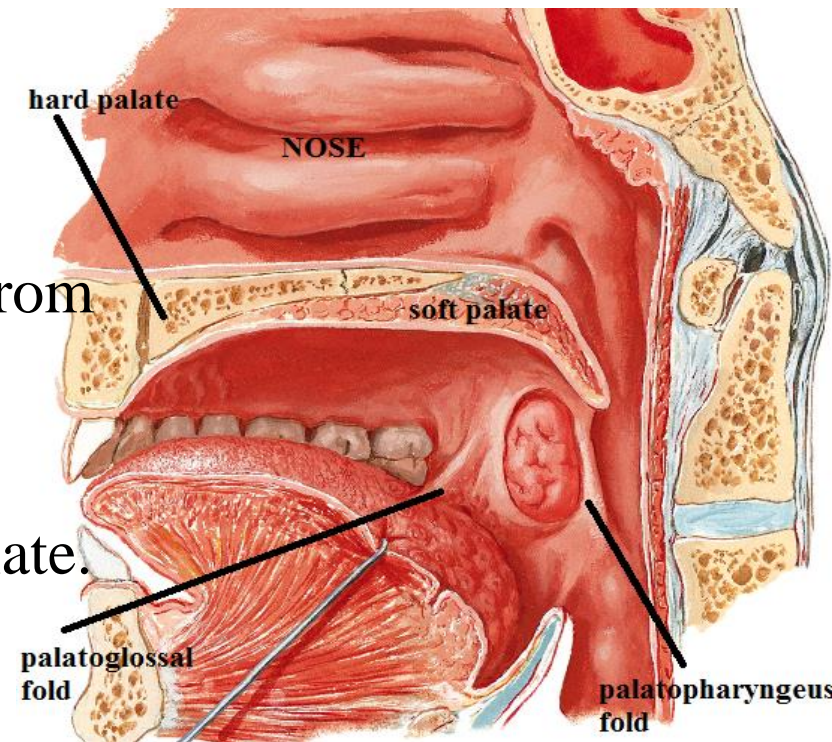
Attached ant. Border: attached to hard palate.

Free posterior (posteroinferior) border:

shows the uvula at midline, the uvula is a conical projection that hangs from the posterior border in midline,

Upper surface: its mucous membrane continuous with that of floor of nose.

Inferior surface: its mucous membrane is continuous with that covering hard palate, Palatoglossal arch and palatopharyngeal arch start at this surface.



PALATE

Muscles of soft palate 5 pairs of muscles

1- Tensor palati:

O.: - Scaphoid fossa

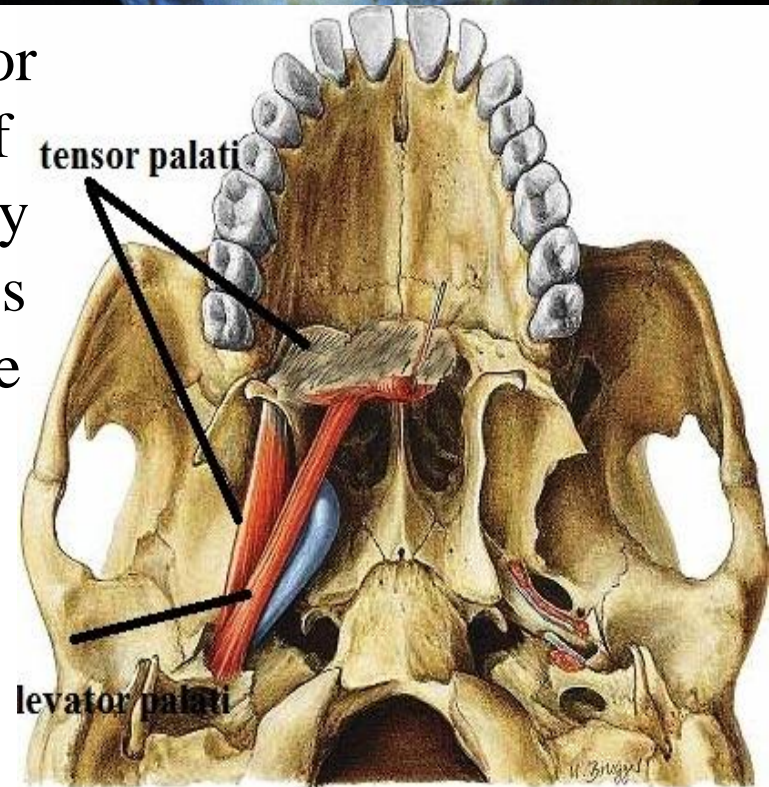
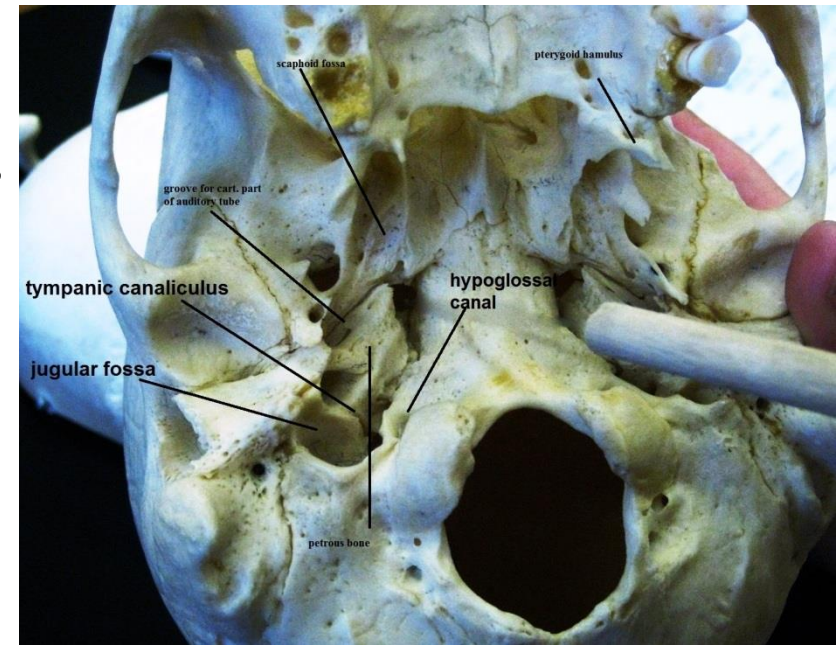
- Cartilaginous part of auditory tube.

I.: by a palatine aponeurosis into post. border of hard palate

Palatine aponeurosis: Muscle fibres of tensor palati form a slender tendon at lateral side of pterygoid hamulus, the tendon turns medially and expands to form the palatine aponeurosis which forms the basic structure of soft palate to which are inserted or from which-arise other structures of the palate

Action:-tensor for soft palate.

-assists in opening of auditory tube.



PALATE

2-Levator palati muscle.

O.: - petrous bone

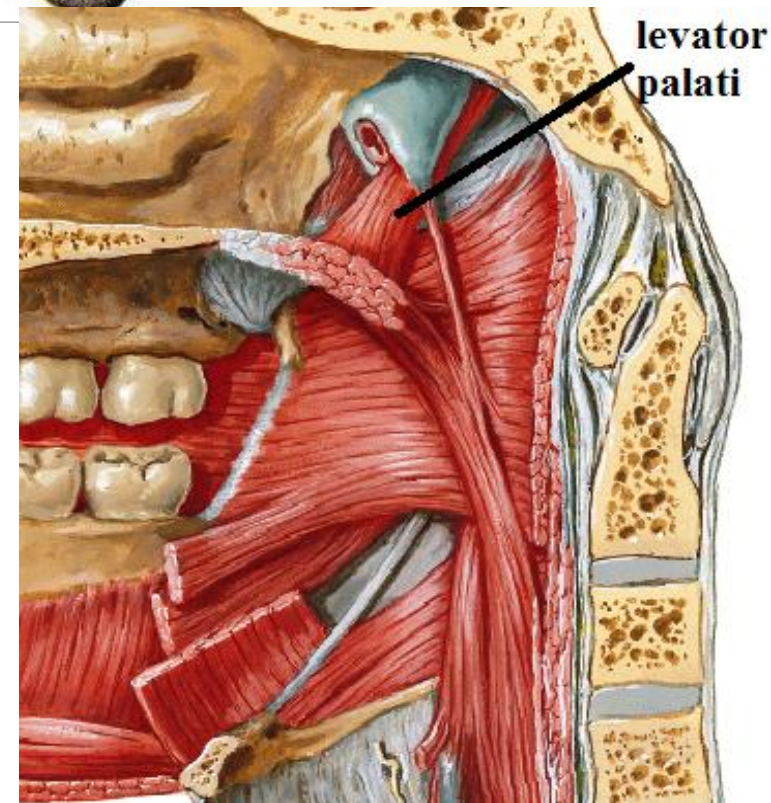
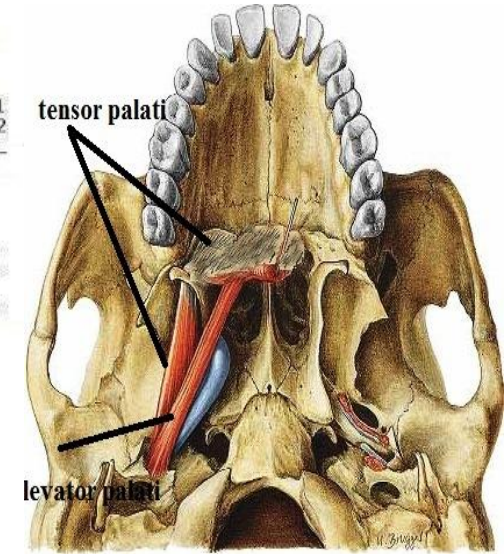
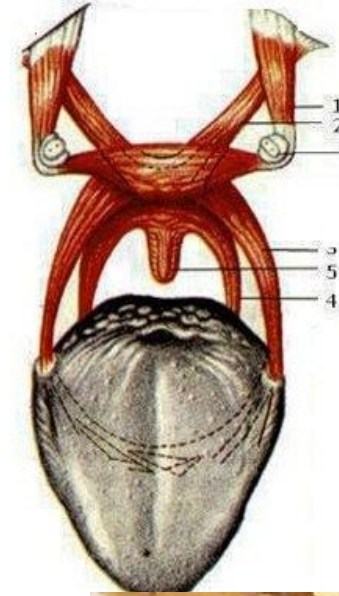
- Cartilaginous part of auditory tube.

I.: - upper surface of palatine aponeurosis

Action: - elevates the palate.

- open auditory tube.

- Both actions of tensor palati and levator palati leads to elevation of soft palate to be applied to post, wall of pharynx closing the pharyngeal isthmus, this occurs during swallowing to prevent regurgitation of food to nasal cavity.



PALATE

3-Palatoglossus muscle:

4-Palatopharyngeus muscle: .

5-Musculus uvulae:

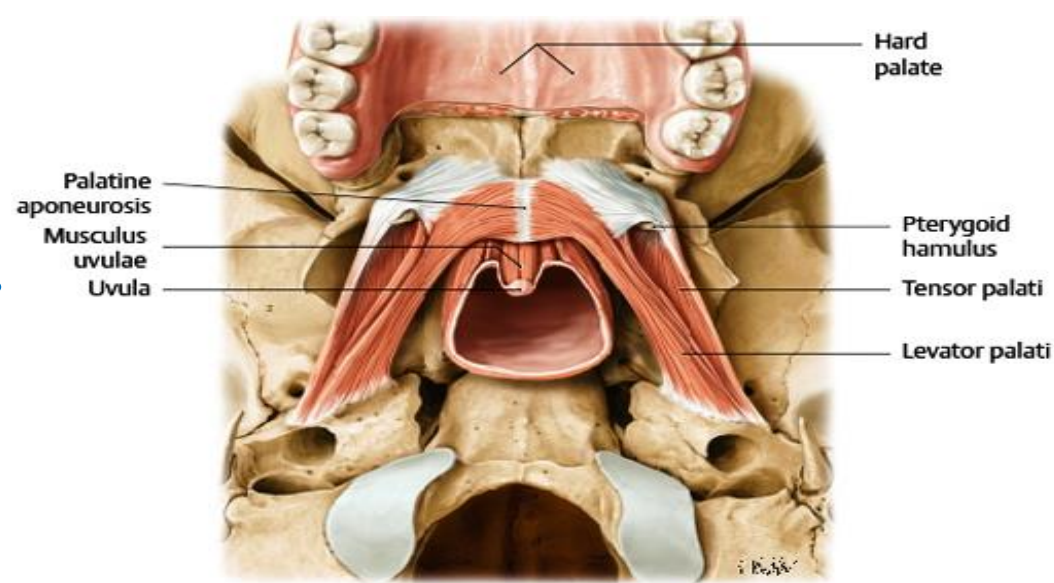
O.: post. nasal spine.

I.: mucous membrane of uvula.

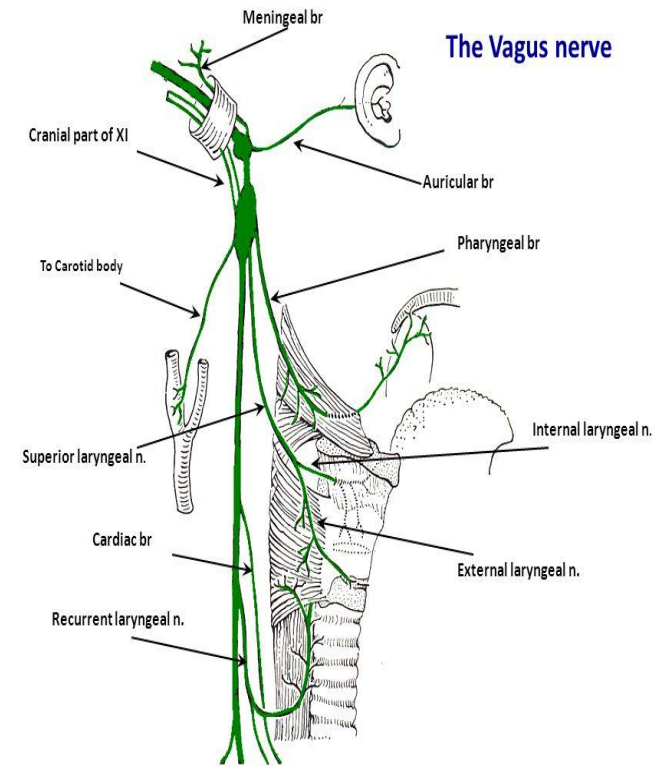
Action: pull uvula to its own side.

Nerve supply of palate

Motor: all muscles of palate are supplied by cranial part of accessory nerve through vagus except tensor palati which is supplied by mandibular branch of the trigeminal nerve



Inferior View of Hard and Soft Palate



PALATE

Nerve supply of palate

Sensory:

Lesser palatine nerves: of pterygopalatine ganglion.

Tonsillar branch of Glossopharyngeal n.

Blood supply:

Arteries:-

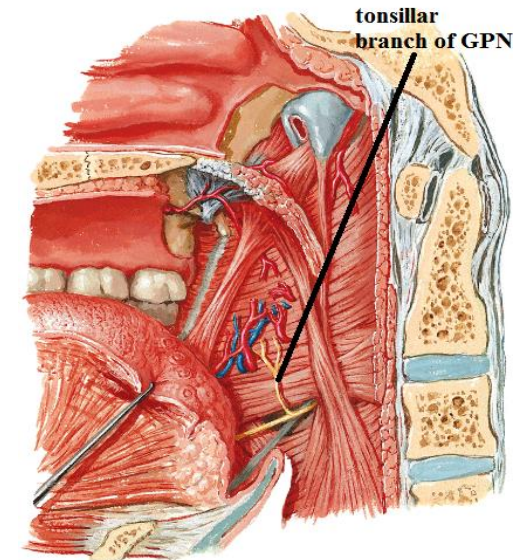
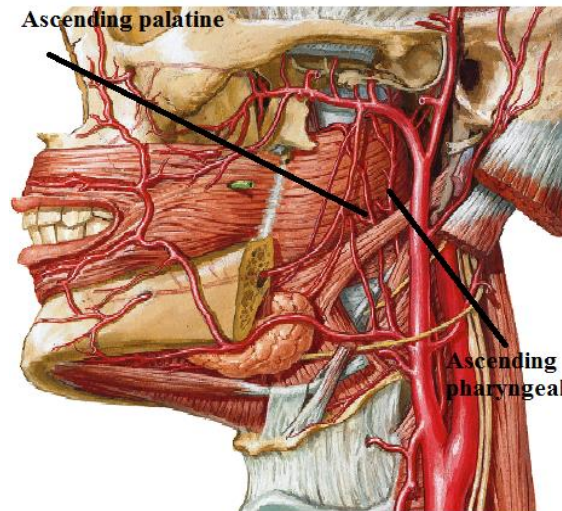
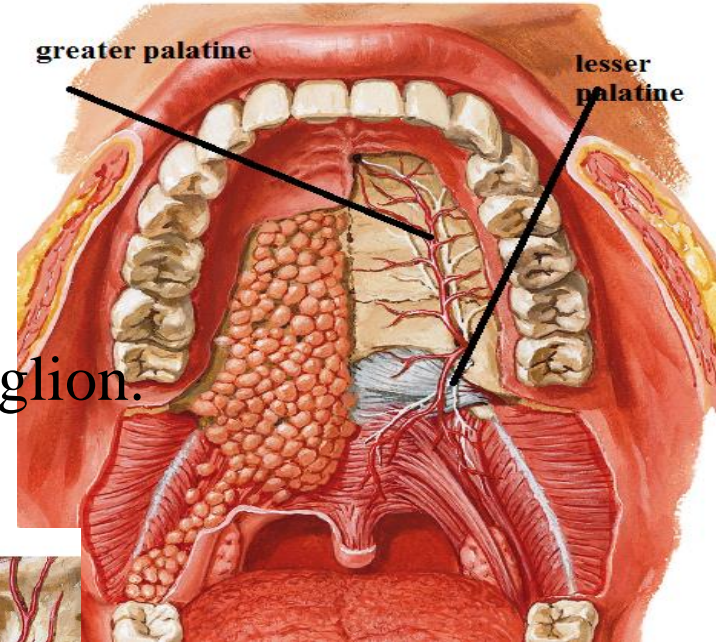
greater palatine art.

Ascending palatine art.

Ascending pharyngeal art.

Veins:

-Accompanying veins end in: pterygoid and pharyngeal venous plexuses



THANQ