

BY

DR ABULMAATY MOHAMED

ASSISTANT PROFESSOR

ANATOMY & EMBRYOLOGY

MUTAH UNIVERSITY

#### **Definition:**

a mass of skeletal muscles covered by mucous membrane.

#### Parts: -

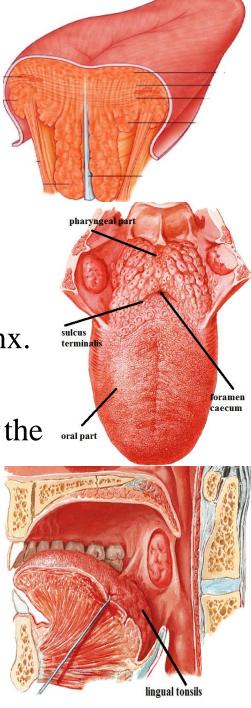
Oral part: ant. 2/3 lies in the floor of oral cavity

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

#### **Sulcus terminalis:**

-It is v- shaped sulcus that marks the junction between the oral part and pharyngeal part of tongue.

- -lies on sup. Surface
- -its apex directed backwards showing a depression called Foramen caecum



## TONGUE Parts

Oral part of tongue

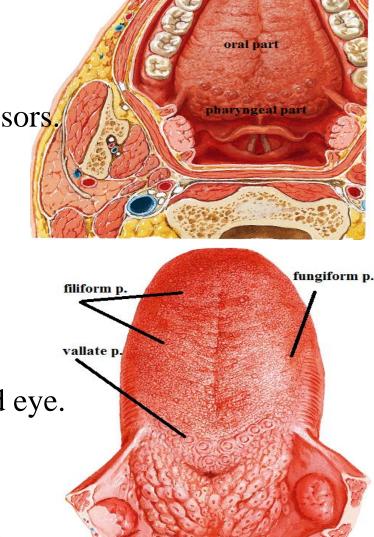
Shape:-triangular in shape with apex (tip of tongue):- lies just behind the incisors.

- 2 margins:- lie opposite the teeth
- 2 surfaces:- superior & inferior

Features of the Sup. Surface:

shows 3 types of papillae:

- 1-Vallate papillae:
- row of papilla in front of sulcus terminals
- it is large enough to be easily seen by naked eye.
- 2-Fungiform papillae:- on tips and sides
- 3-Filiform papillae. small
- arranged into rows parallel to vallate papillae
- -The papillae increase the surface area of mucous membrane of tongue and contains taste buds.



#### **Parts**

Oral part of tongue

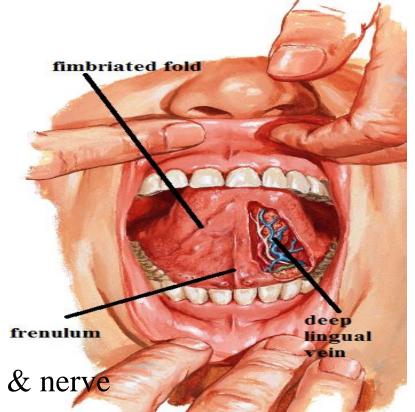
Features of the inferior surface

- -Has no papilla, but it shows 3 features.
- -Lingual frenulum:
- -Deep lingual vein:

appears as a dark line lateral to frenulum.

this vein is accompanied by lingual artery & nerve

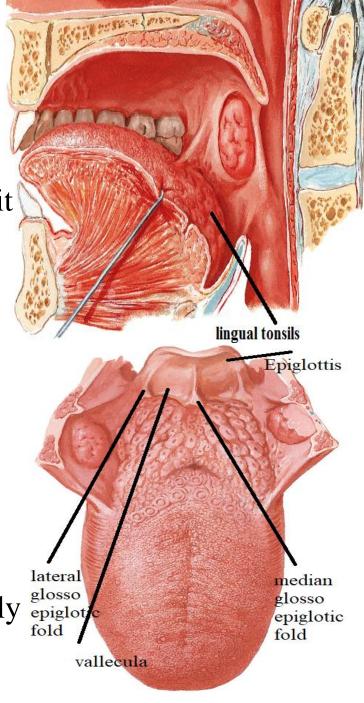
-Fimbriated fold: lateral to the vein.



#### **Parts**

## 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
- -Has no papilla.
- -It is irregular due to presence of nodules of lymphoid tissue in the submucosa (lingual tonsils).
- -its pharyngeal surface is connected with the epiglottis by one median & two lateral glossoepiglotic folds
- -vallecula :- depressions on both sides of the median glossoepiglotic folds bounded laterally by lateral glossoepiglotic folds



**Muscles:** intrinsic and extrinsic

#### Intrinsic muscles:-

•arise and end within the substance of tongue with no bony attachments outside the tongue

•These are 4 groups :

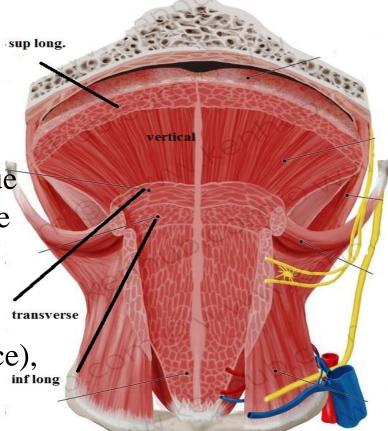
1-Superior longitudinal m. (on the dorsum)

2-inferior longitudinal m. (on inferior surface),

3-vertical m. ( ) 1 & 2

4-transverse m.

•They change the shape of tongue in chewing, speech.



### **Muscles:**

#### **Extrinsic muscles:**

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

## Genioglossus

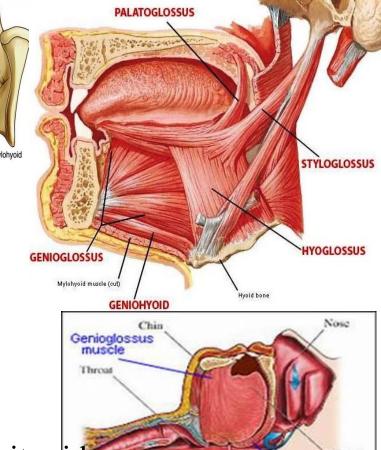
- O.:- Superior genial tubercle
- I. :- whole length of lower surface of tongue -reach hyoid bone
- A. :- one muscle Protrudes tongue to opposite side

  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





#### **Muscles:**

#### Extrinsic muscles:

## **Hyoglossus**

O.:- body & greater horn of hyoid bone

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

**A.:** - Depresses tongue during speech, chewing, singing

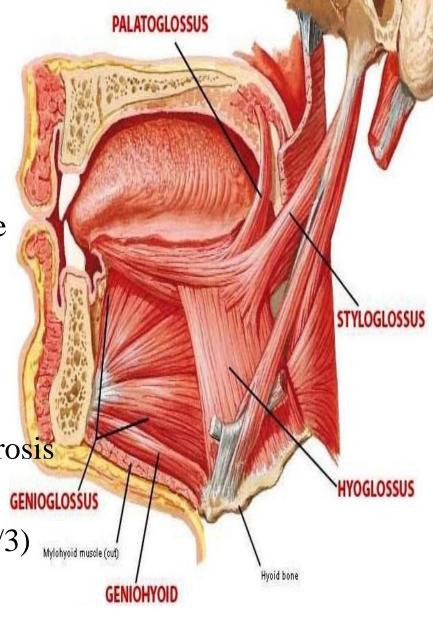
## **Palatoglossus**

O.:- inferior surface of palatine aponeurosis

**I.** :- side of tongue

(at junction between ant 2/3 and post. 1/3)

**A.:** - Elevates tongue depresses palate



## **Blood supply:**

Arterial supply: Mainly by lingual artery

Venous drainage: it is drained by 2 veins.

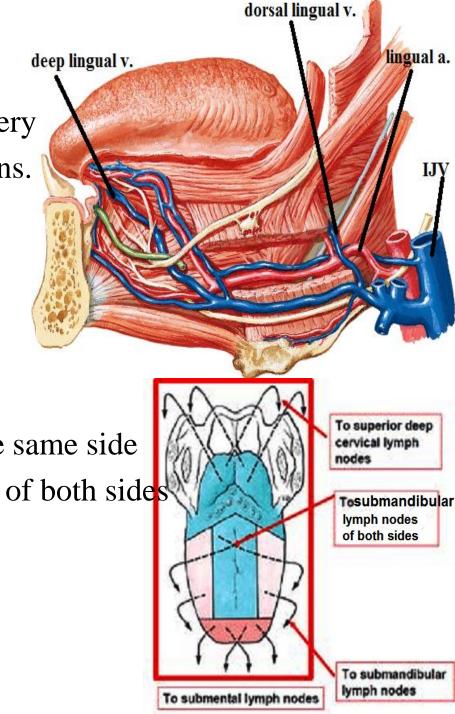
- 1 -Deep lingual vein:
- 2-Dorsal lingual vein:

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.



## **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:

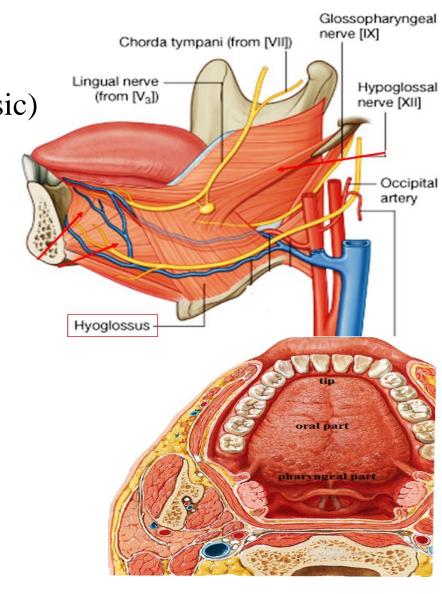
## -Ant. 2/3:

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

N.B.:- vallate papilla are supplied by glossopharyngeal nerve



#