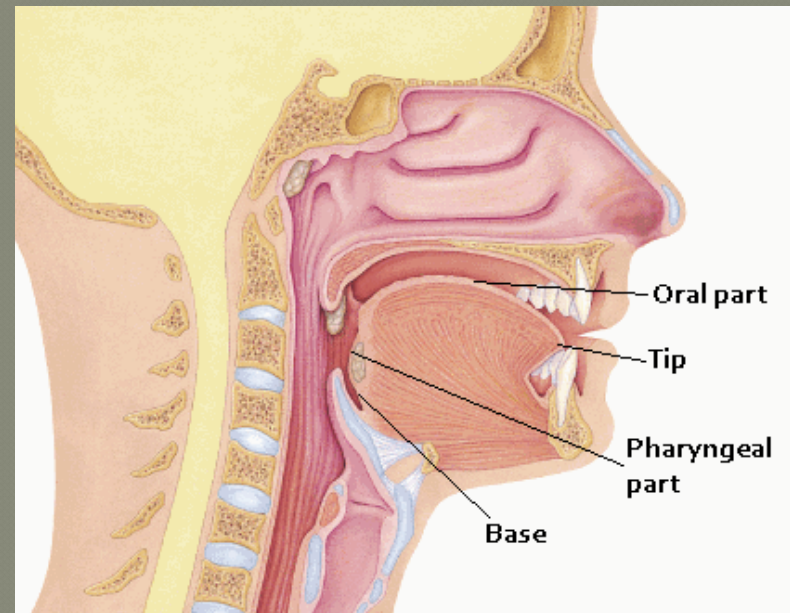


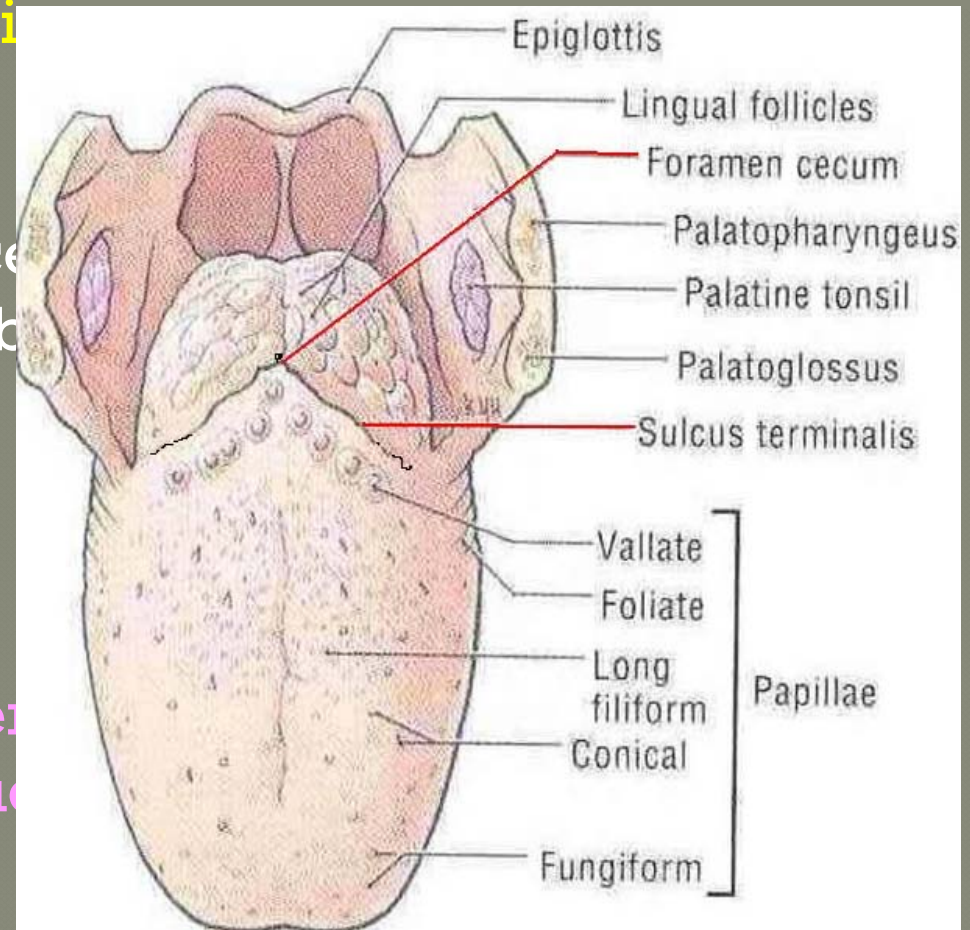
# Tongue

- Mass of **striated muscles** covered with the mucous membrane
- Divided into right and left halves by a **median septum**
- Three parts:
  - **Oral** (**anterior  $\frac{2}{3}$** )
  - **Pharyngeal** (**posterior  $\frac{1}{3}$** )
  - **Root** (base)
- Two surfaces:
  - **Dorsal**
  - **Ventral**



# Dorsal Surface

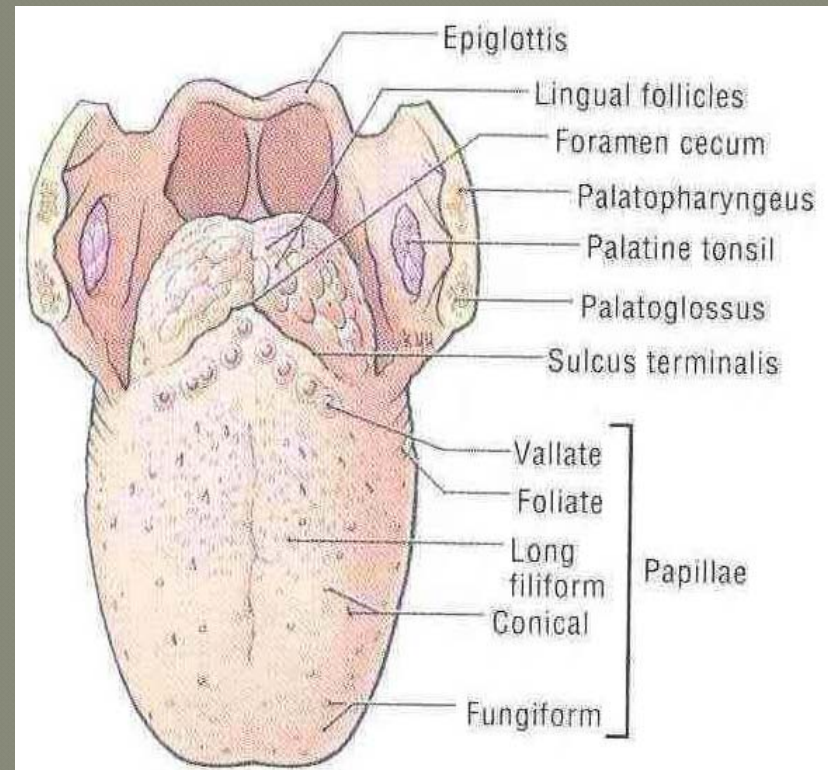
- ◉ Divided into **anterior two thirds** and **posterior one third** by a V-shaped **sulcus terminalis**.
- ◉ The apex of the sulcus faces backward and is marked by a pit called the **foramen cecum**.
- ◉ Foramen cecum, an embryological remnant, marks the site of the **upper end of the thyroglossal duct**.





# Dorsal Surface cont'd

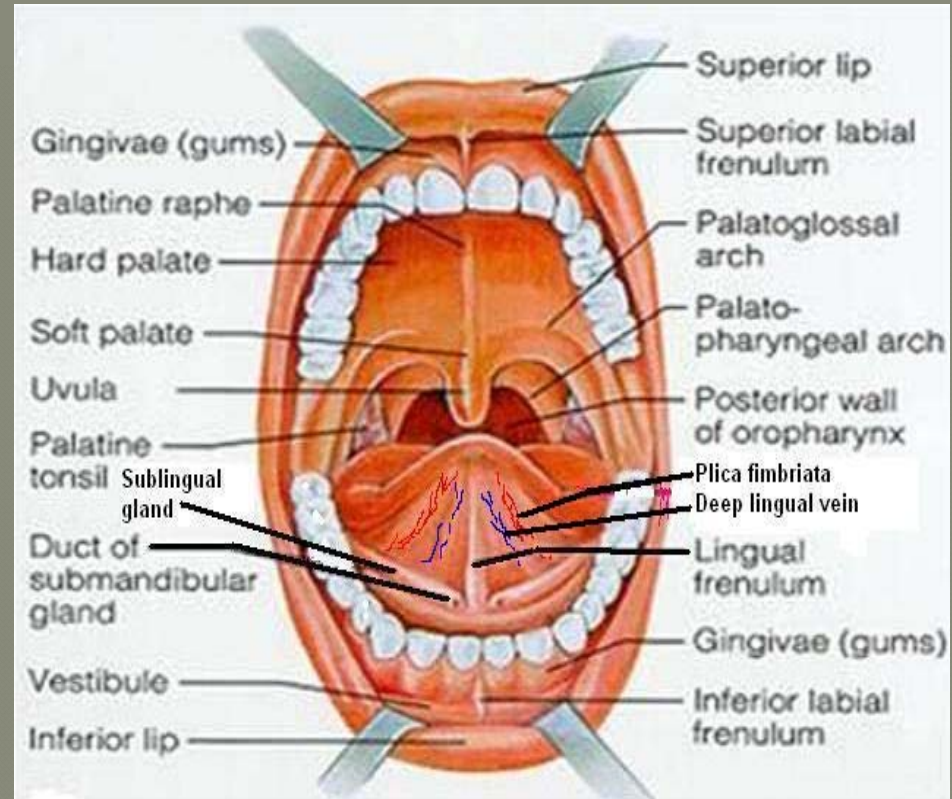
- ◎ **Anterior two third:** mucosa is rough, shows three types of papillae:
  - **Filliform**
  - **Fungiform**
  - **Vallate**
- ◎ **Posterior one third:** No papillae but shows nodular surface because of underlying **lymphatic nodules**, the **lingual tonsils**





# Ventral Surface

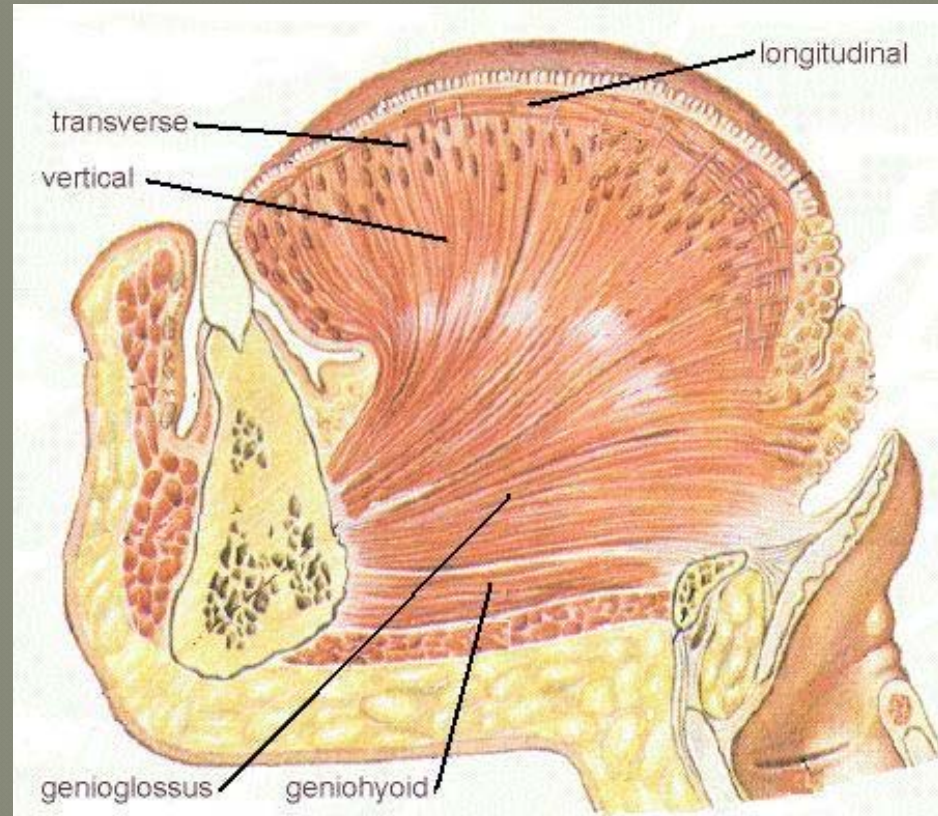
- Smooth (no papillae)
- In the midline anteriorly, a mucosal fold, **frenulum** connects the tongue with the floor of the mouth
- Lateral to frenulum, **deep lingual vein** can be seen through the mucosa
- Lateral to lingual vein, a fold of mucosa forms the **plica fimbriata**





# Muscles

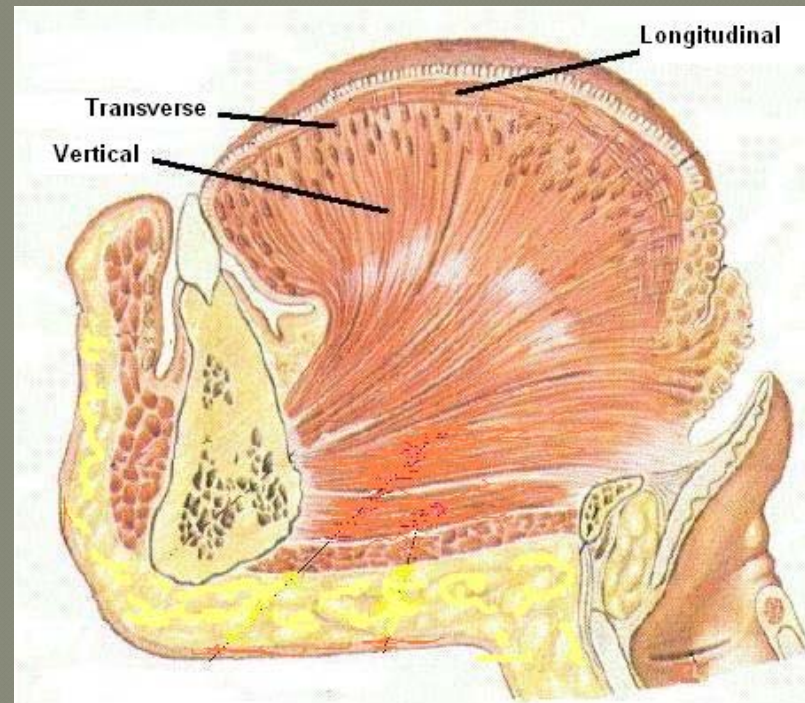
- The tongue is composed of two types of muscles:
  - Intrinsic
  - Extrinsic





# Intrinsic Muscles

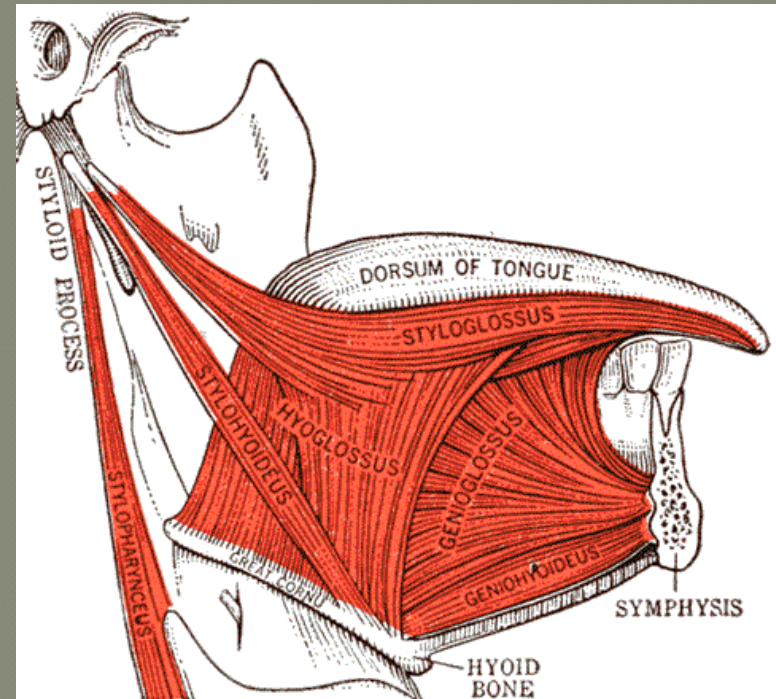
- Confined to tongue
- No bony attachment
- Consist of:
  - Longitudinal fibers
  - Transverse fibers
  - Vertical fibers
- Function: Alter the shape of the tongue





# Extrinsic Muscles

- Connect the tongue to the surrounding structures: the **soft palate** and the **bones** (mandible, hyoid bone, styloid process)
- Include:
  - **Palatoglossus**
  - **Genioglossus**
  - **Hyoglossus**
  - **Styloglossus**
- **Function:** Help in movements of the tongue



# Lymphatic Drainage

## ◎Tip:

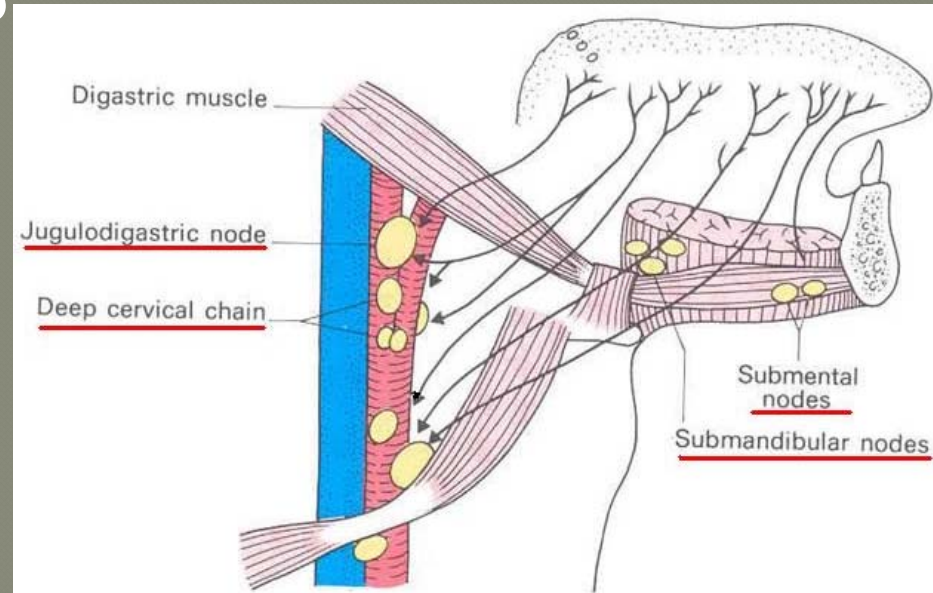
- Submental nodes bilaterally & then deep cervical nodes

## ◎Anterior two third:

- Submandibular unilaterally & then deep cervical nodes

## ◎Posterior third:

- Deep cervical nodes (jugulodigastric mainly)





# Carcinoma tongue

## ● Predisposing factors

Pipe smoking

Syphilis

Chronic superficial glossitis

Alcohol

Chronic irritation -sharp tooth

Betel nuts





# Macroscopically

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- ◉ Ulcer –most common  
irregular margins everted edges
- ◉ Warty growth
- ◉ Indurated growth or mass
- ◉ Fissure



# Clinical feature

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- Usually age > 50 yrs
- Sex both equally
- Painless lump or ulcer on tongue
- Excessive salivation
- Foetor oris
- Ankyloglossia-immobility of tongue
- Pain –involvement of nerve
- Horseness of voice & dysphagia in posterior 3<sup>rd</sup> tongue
- Lump in neck



# Examination

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- Site - common anterior 2/3 near edges
- Ulcer papilliferous or warty, lump fissure
- Palpation of posterior 2/3 tongue
- Laryngoscopy
- Examination of lymph node
  - Submental
  - Submandibular
  - Jugulodiagastic



# Investigation

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- Biopsy : margin or excision biopsy
- FNAC lymphnodes
- Ultrasound deep LN
- CT scan bone invasion & mets
- MRI for oral cavity oropharynx
- Radionucleotide scan