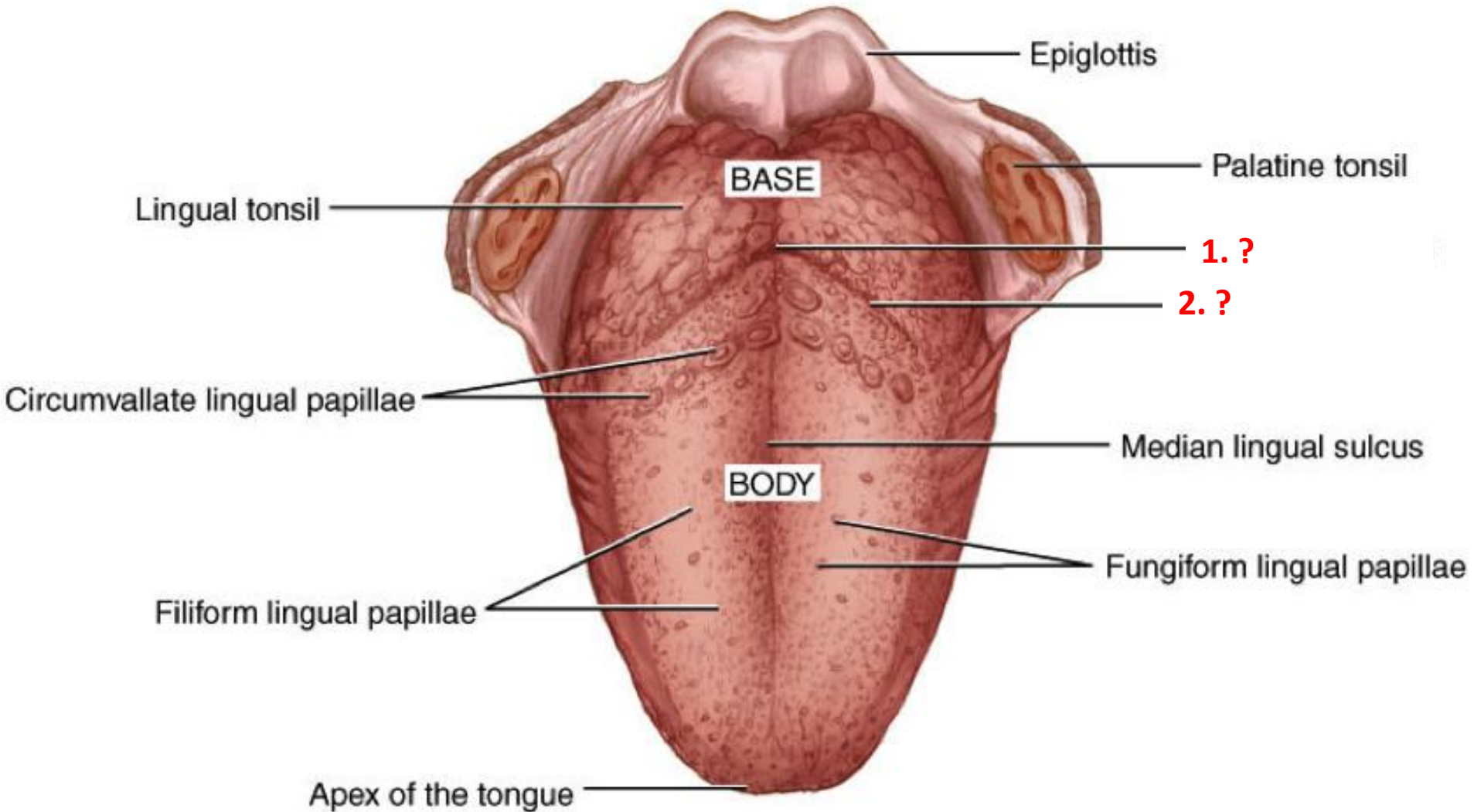


# Tongue – revision of anatomy and embryology

ED II.  
2019.

# Revision from last year

## Dorsum of the tongue



# Ventral surface of the tongue



Developmental disorder:  
'tongue-tied' baby  
(*ankyloglossia*)

Ant. lingual glands

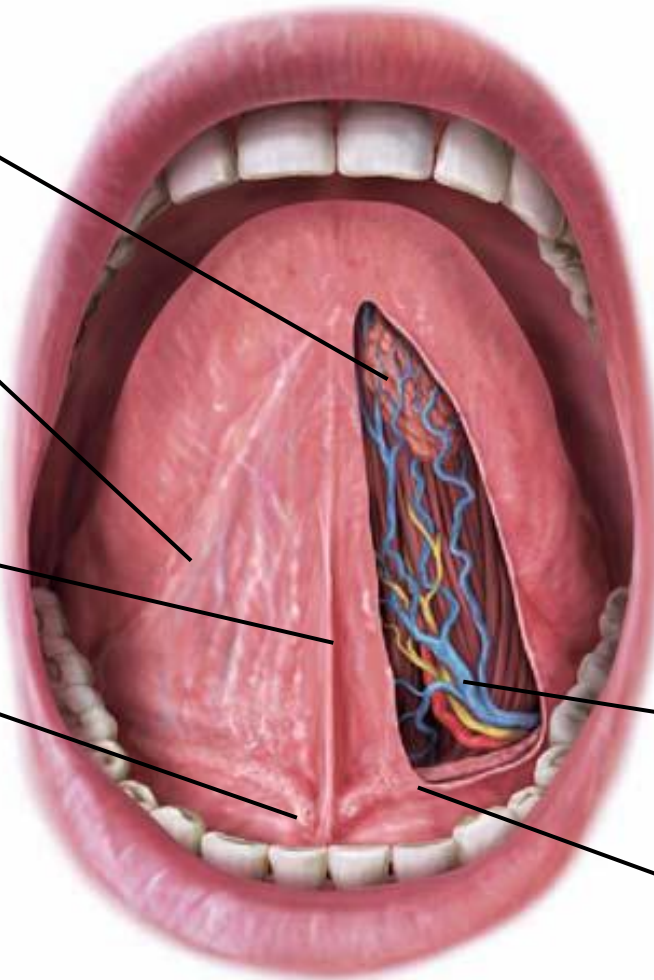
fimbriated fold  
(plica fimbriata)

frenulum

?

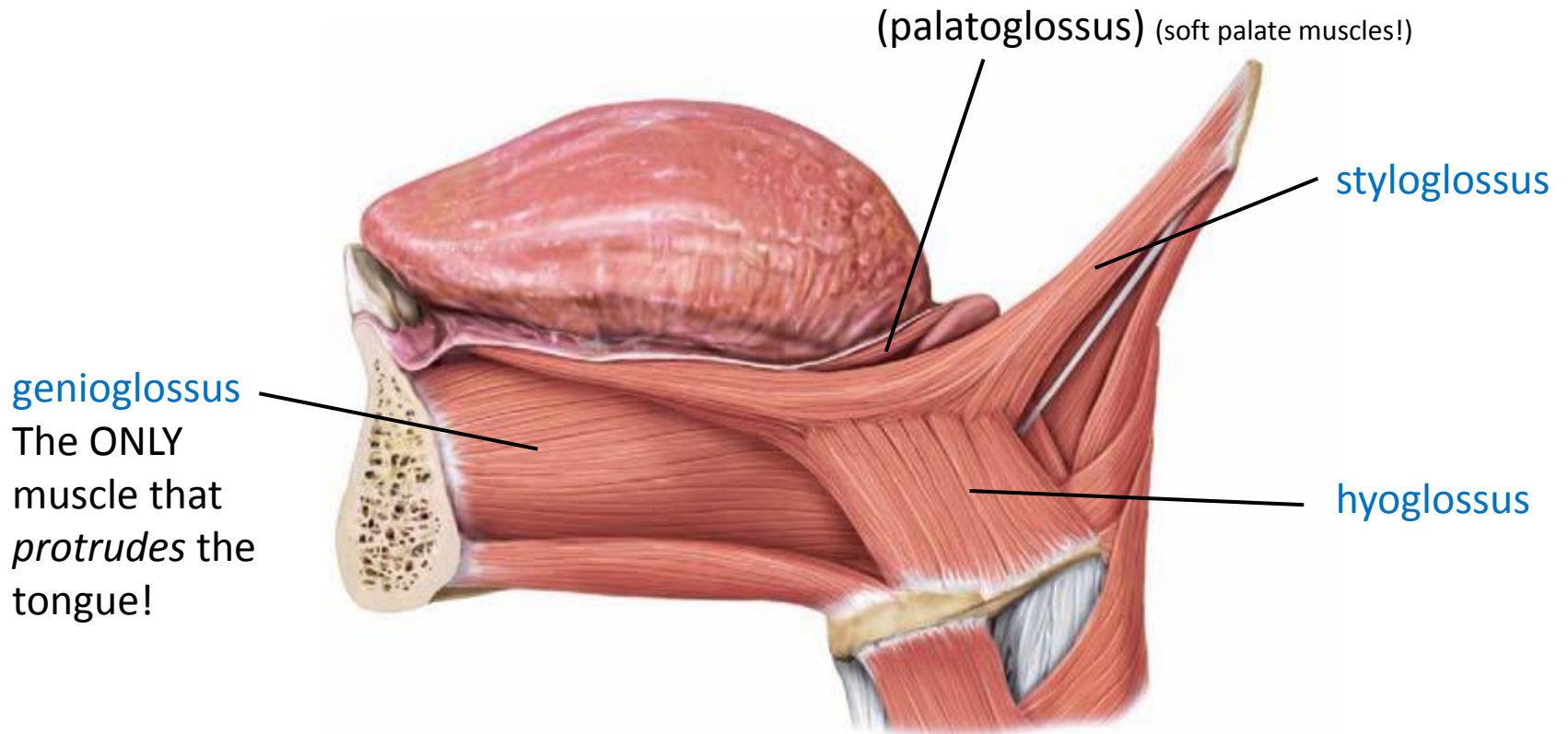
Deep lingual a. and v.;  
lingual n.

Sublingual fold



# Muscles of the tongue

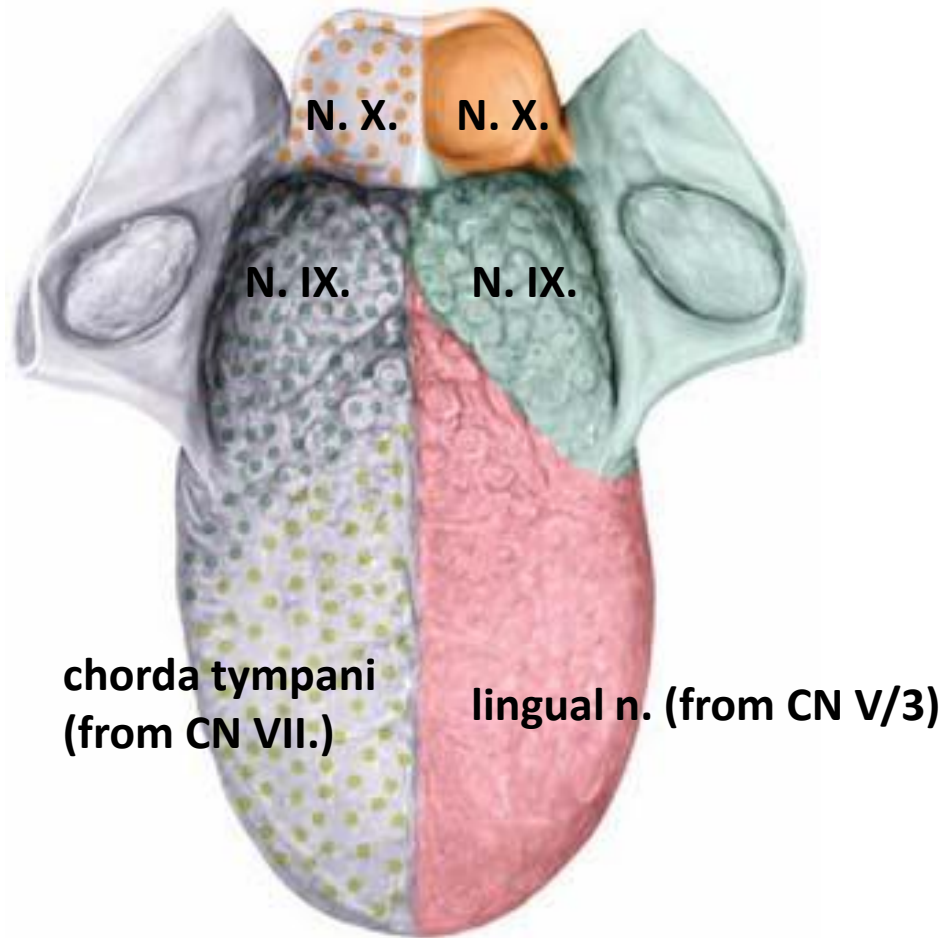
Motor innervation: **hypoglossal nerve** (CN XII.)!



# Innervation of the tongue

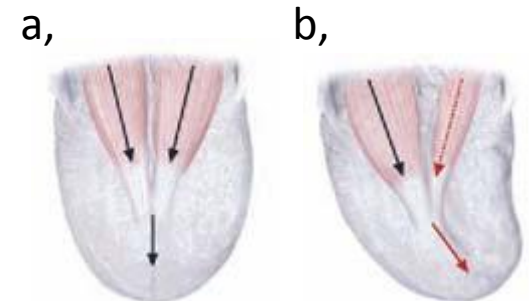
SPECIAL (TASTE) SENSATION

GENERAL (SOMATIC) SENSATION

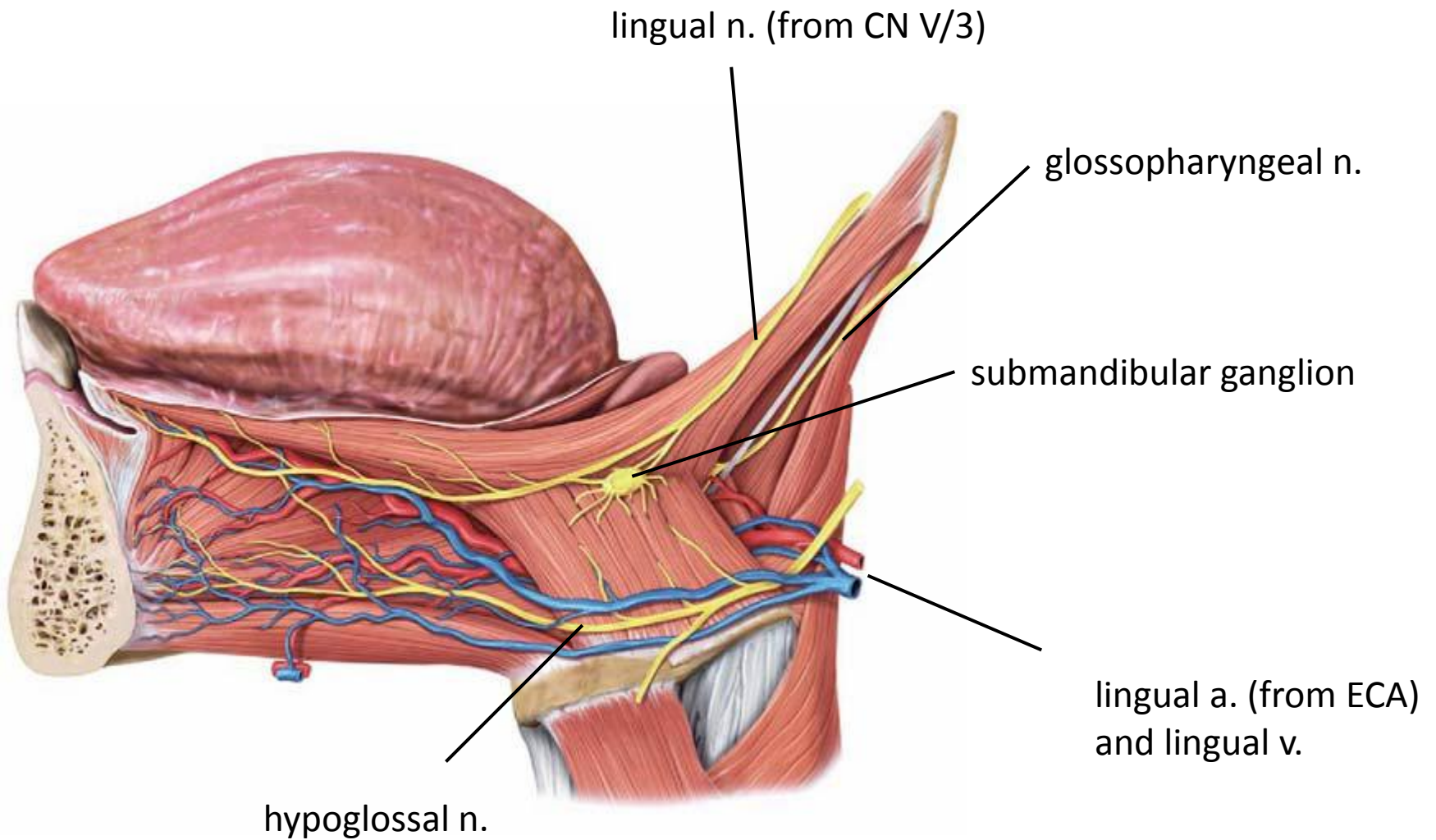


Motor innervation:  
hypoglossal n. (CN. XII.)

a, normal situation  
b, unilateral hypoglossal  
nerve palsy (paralysed  
genioglossus on affected  
side)



# Vessels and nerves of the tongue



# Development of the tongue

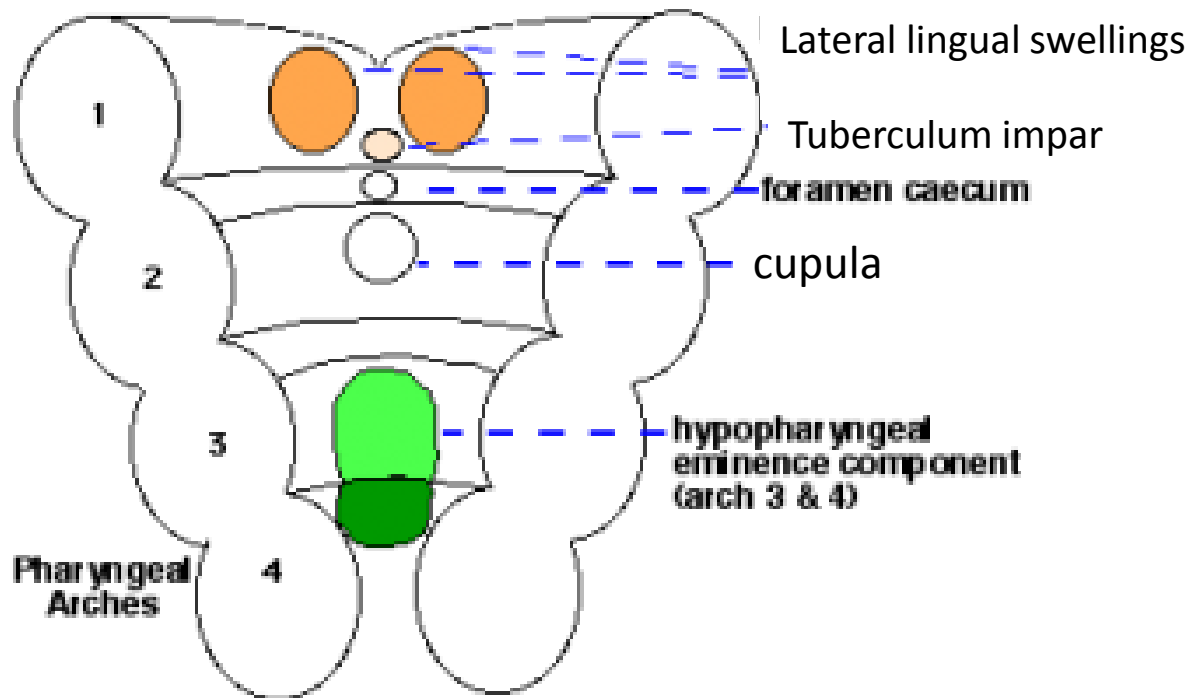
From pharyngeal arches:

**Lateral lingual swellings** and **tuberculum impar**: 1st arch (N.V/3)

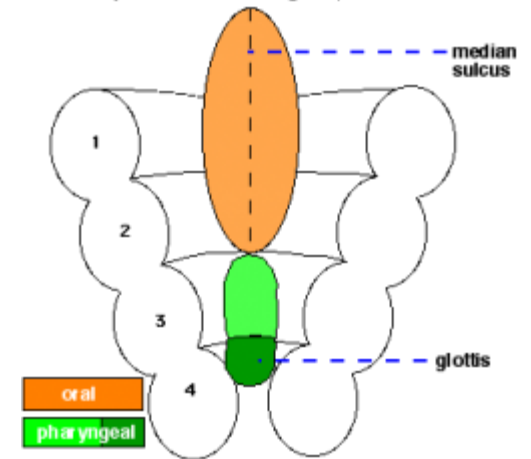
Cupula: 2nd arch (N. VII.)

**Hypopharyngeal eminence**: 3rd and 4th arch (N. IX., N. X.)

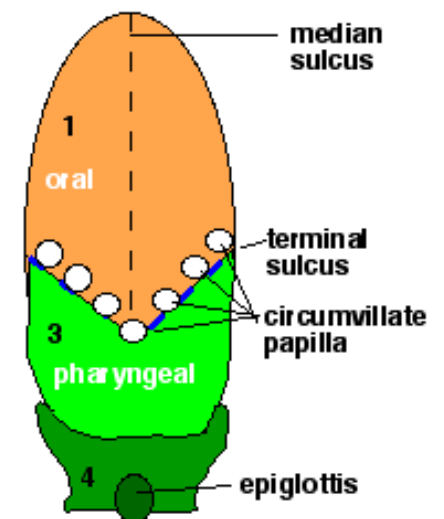
**Development of the Tongue (part 1)**



**Development of the Tongue (part 2)**

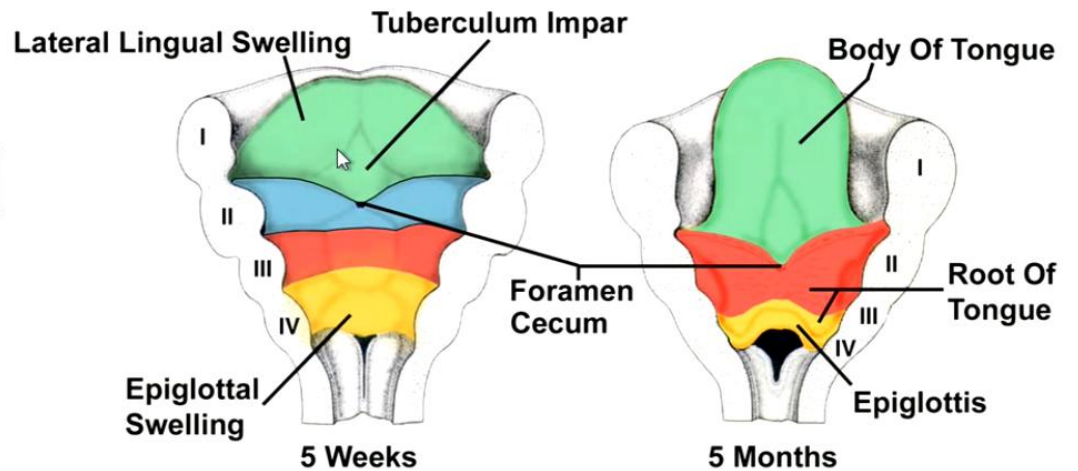
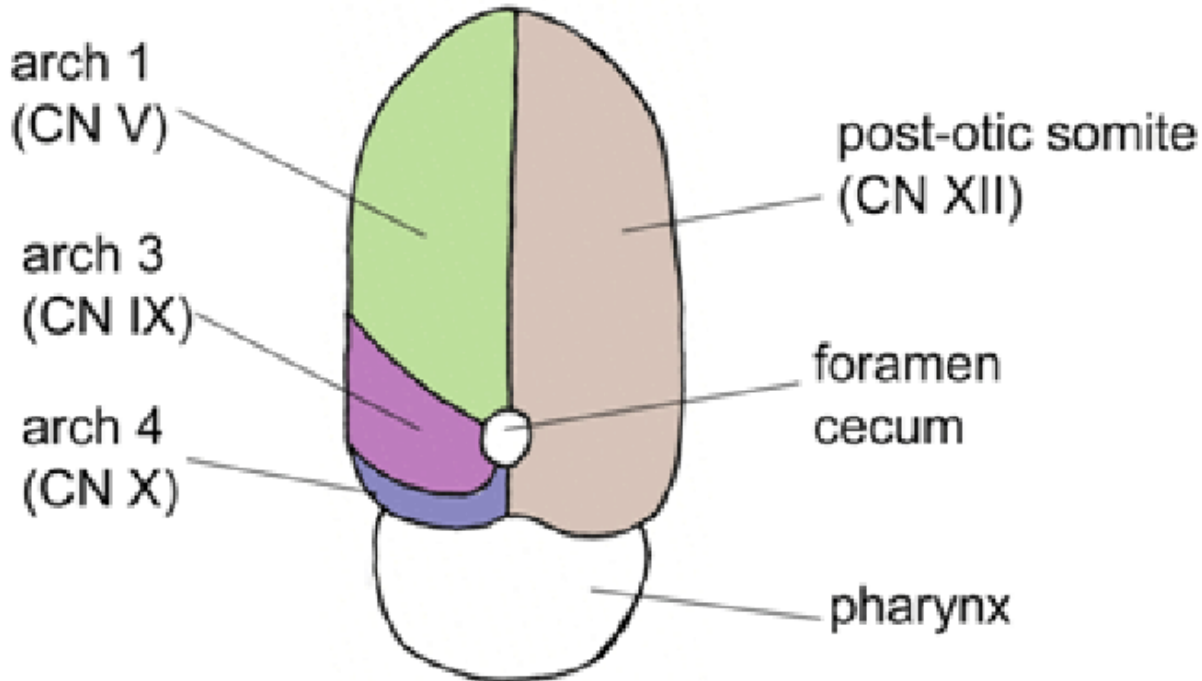


**Development of the Tongue (part 3)**



## Surface

## Internal musculature





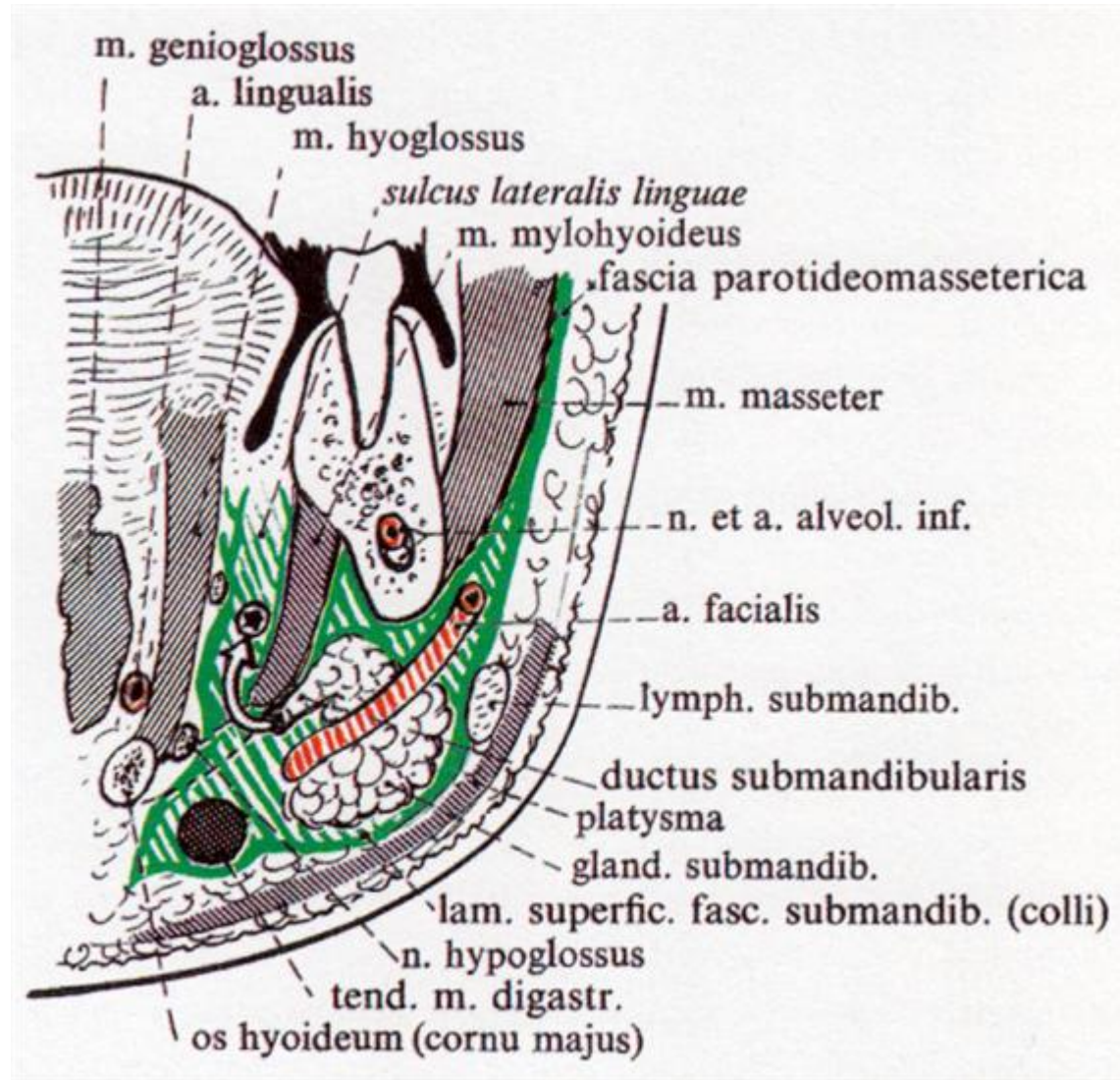
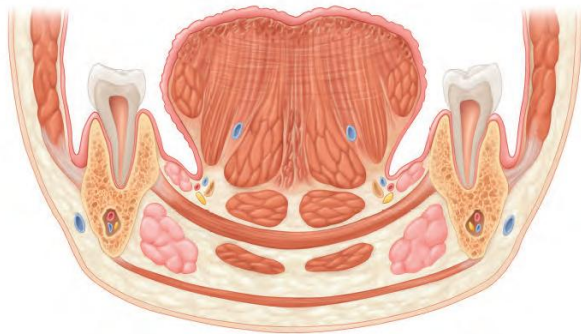
# Lateral lingual sulcus (groove)

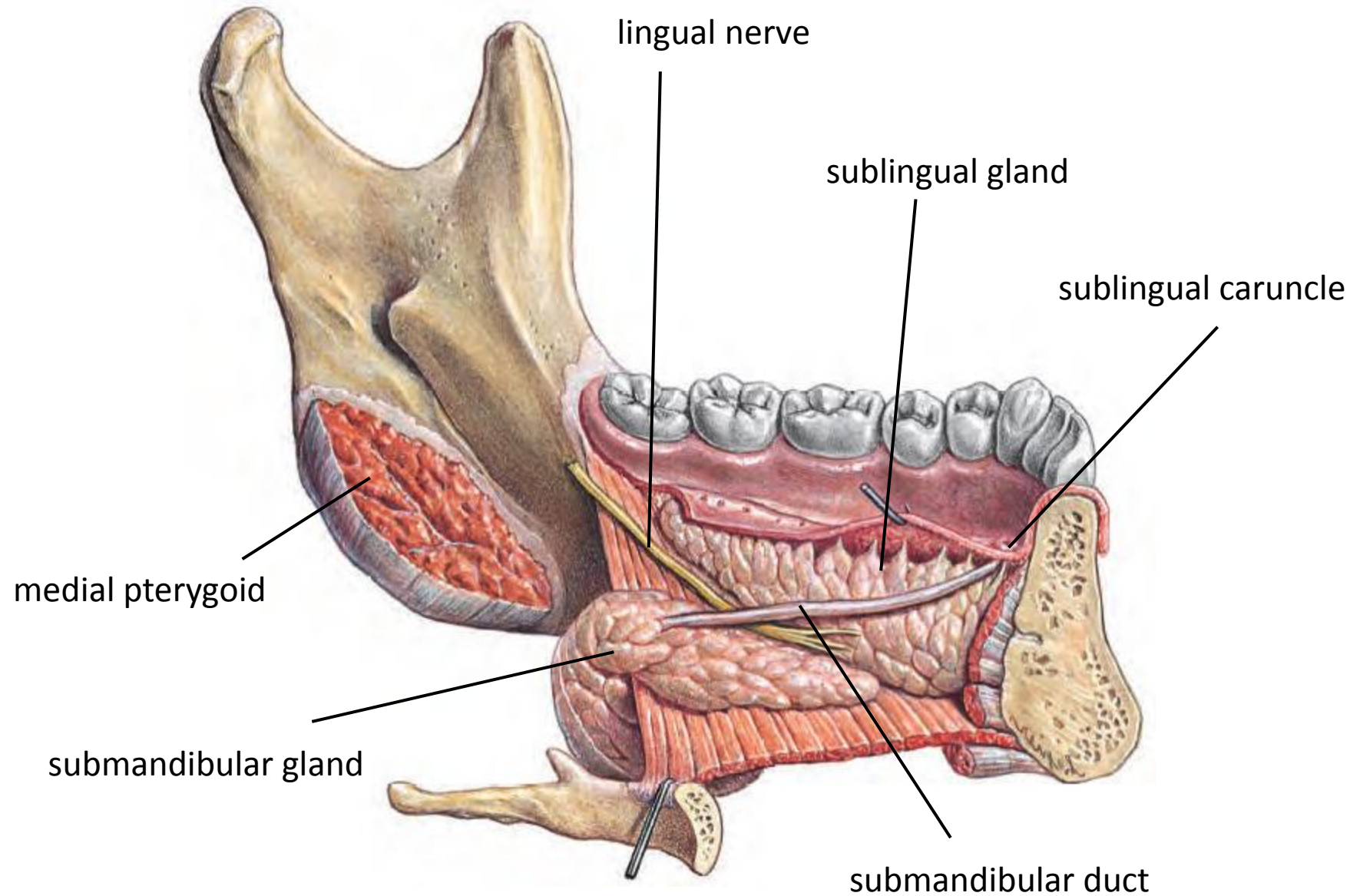
## Borders:

Medial: hyoglossus m.  
lateral and inferior: mylohyoid m.  
superior: mucosa of oral cavity

## Contents:

- N. XII.
- n. lingualis (from V/3)
- submandibular duct
- sublingual gland





lingual nerve

sublingual gland

sublingual caruncle

medial pterygoid

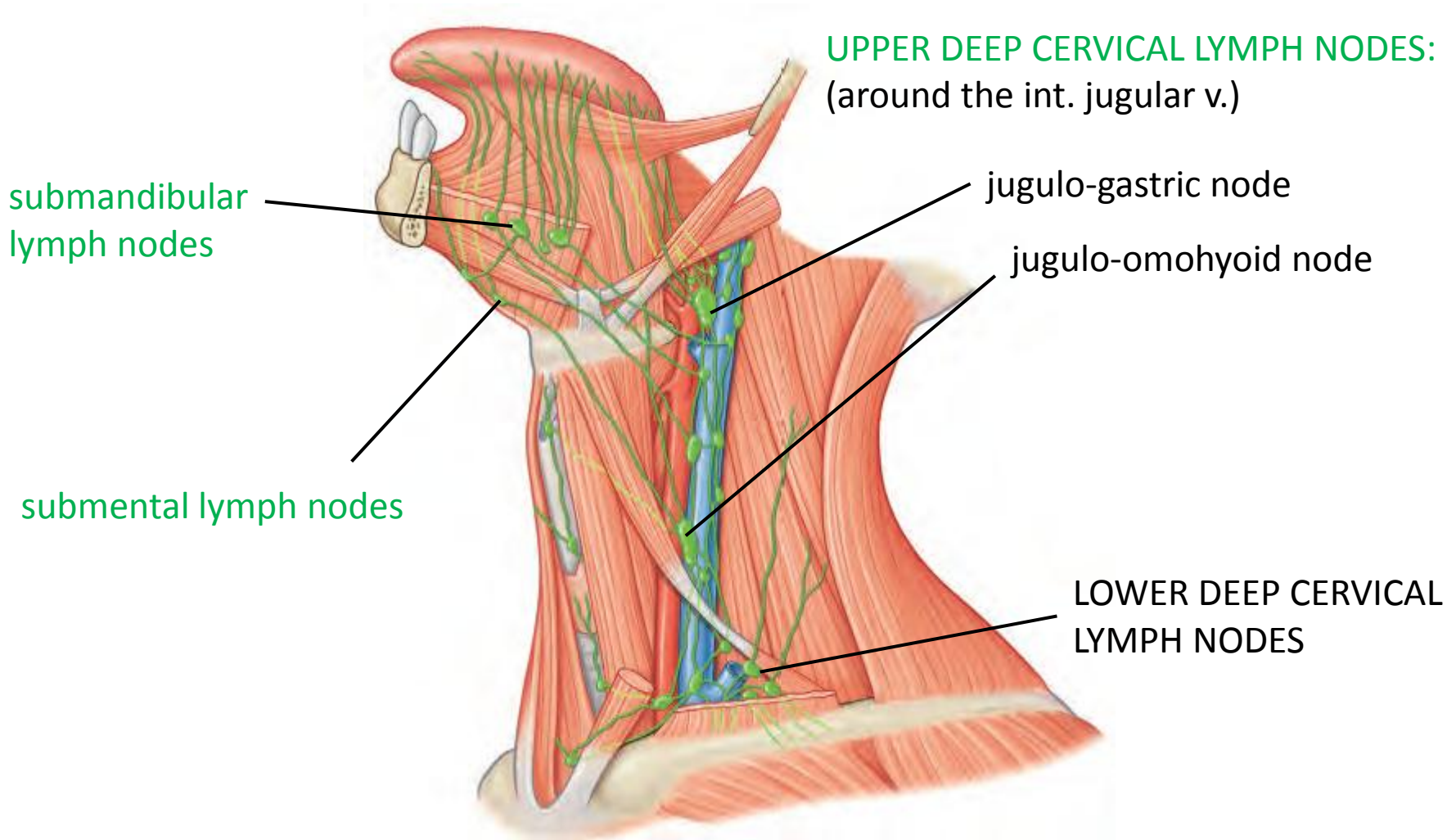
submandibular gland

submandibular duct

# The lymphatic drainage of the tongue

Anterior 2/3: to central and marginal lymph vessels; post. 1/3: to dorsal lymph vessels.

The lymph nodes receive drainage from both ipsilateral and contralateral sides!!!



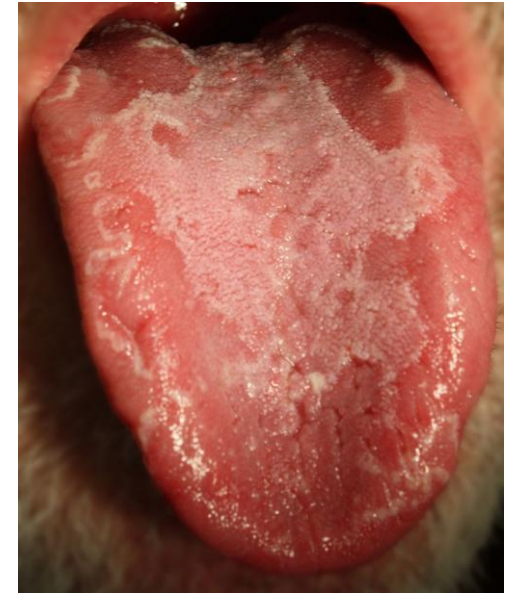
# Examples of diseases showing clinical signs on the tongue



median rhomboid glossitis  
(*Candida* infection)



'strawberry tongue'  
(scarlet fever)



'geographic glossitis'  
(cause unknown)



**leukoplakia**  
pre-cancerous  
lesion, due to  
or permanent  
irritation  
(smoking (!) )

oral cancer on  
the side of the  
tongue

