

# Anatomy of the Oral Cavity and Related Structures

Understanding the Essentials

**Dr Maan Al-Abbasi**  
**PhD, MSc, MBChB, MD**

# Learning



# Objectives

Demonstrate the major features and boundaries of the oral cavity and summarize its sensory innervation.

Describe the functional anatomy of the tongue, including its motor and sensory innervation and the role of the extrinsic and intrinsic muscles.

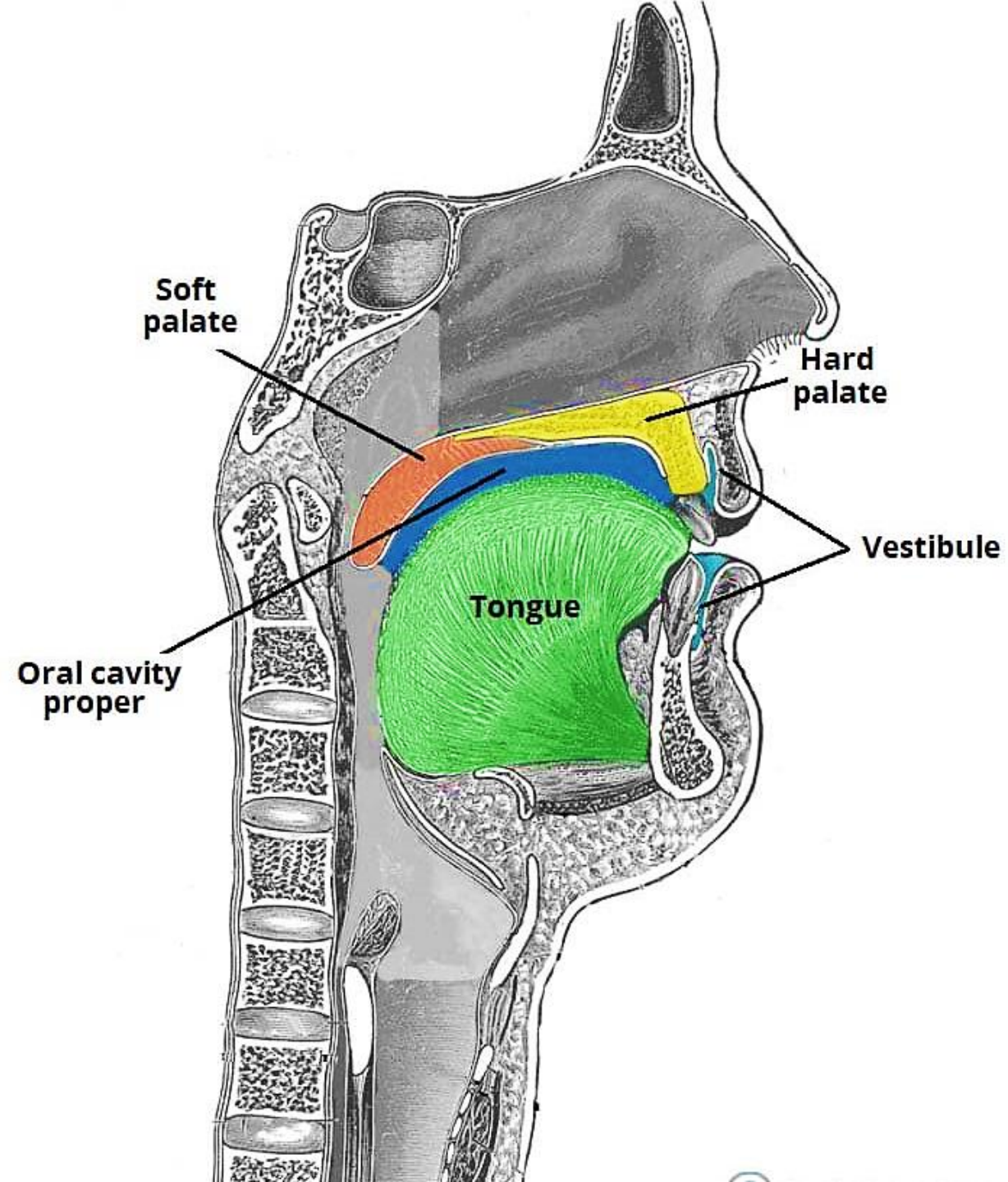
Explain the deviation of the tongue after hypoglossal nerve injuries.

Describe the anatomical arrangement and functional significance of the lymphoid tissue in the tonsils, pharyngeal, and posterior nasal walls.

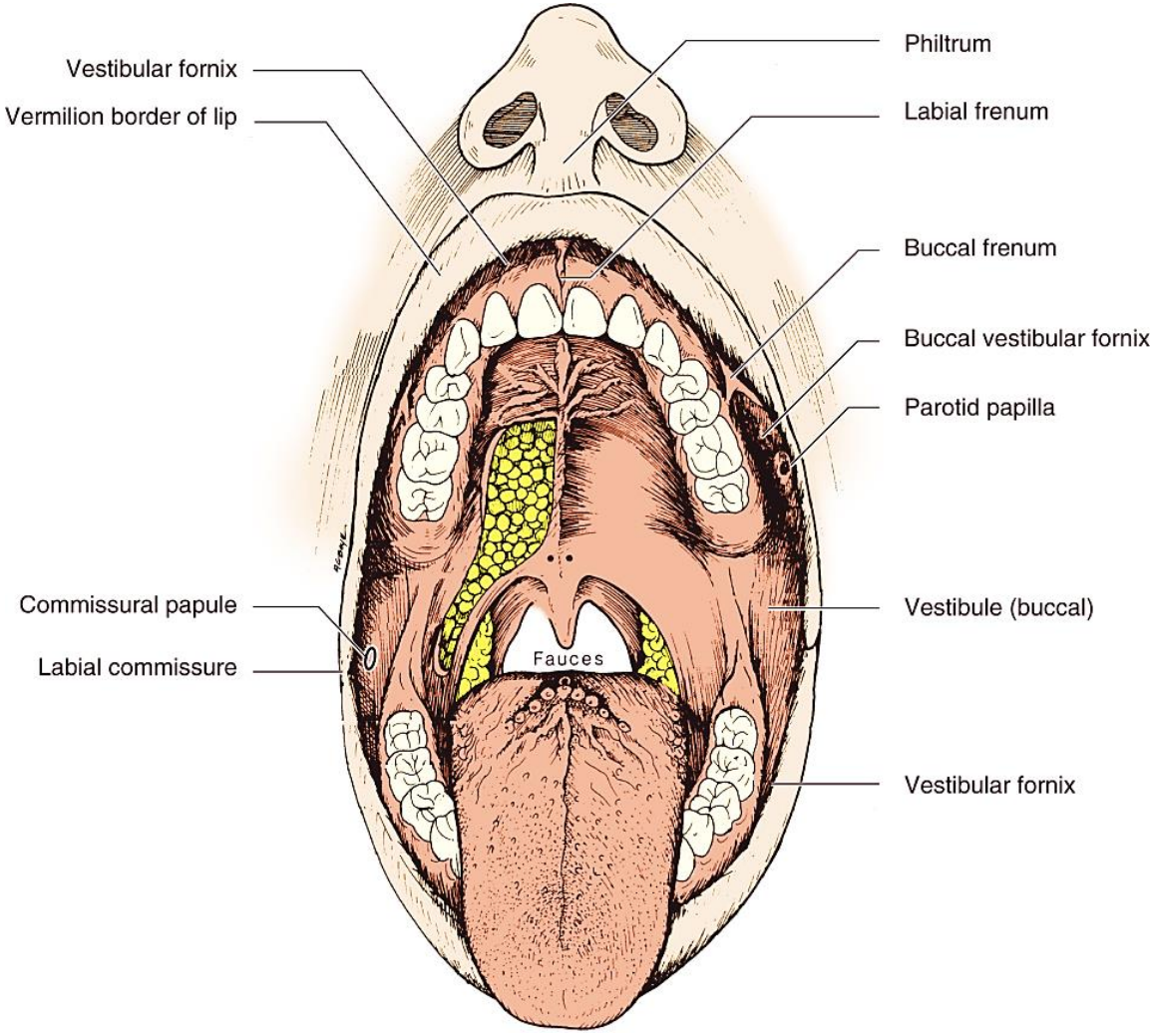
# **Section 1**

## **Anatomy of the Oral Cavity**

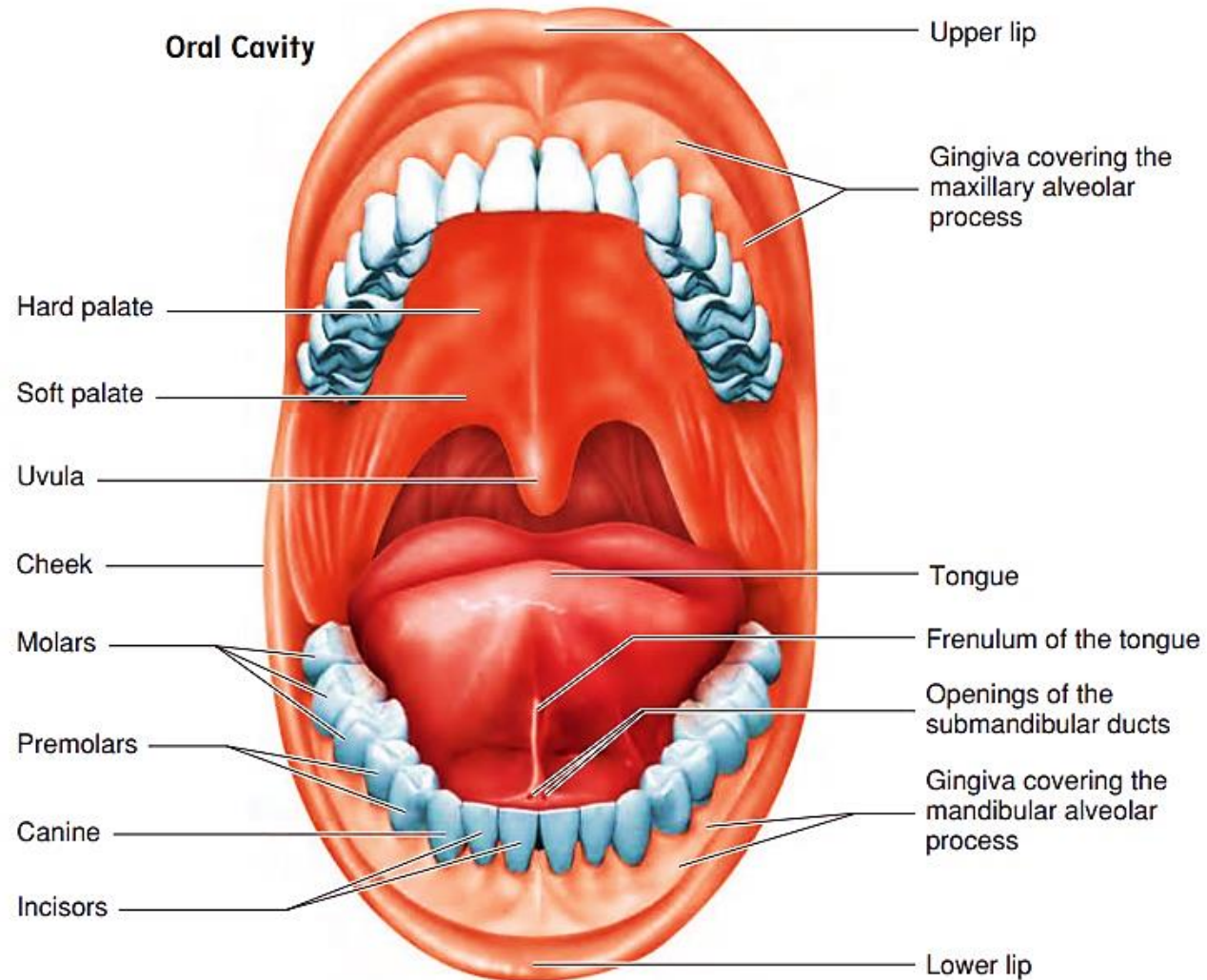
# The Cavities



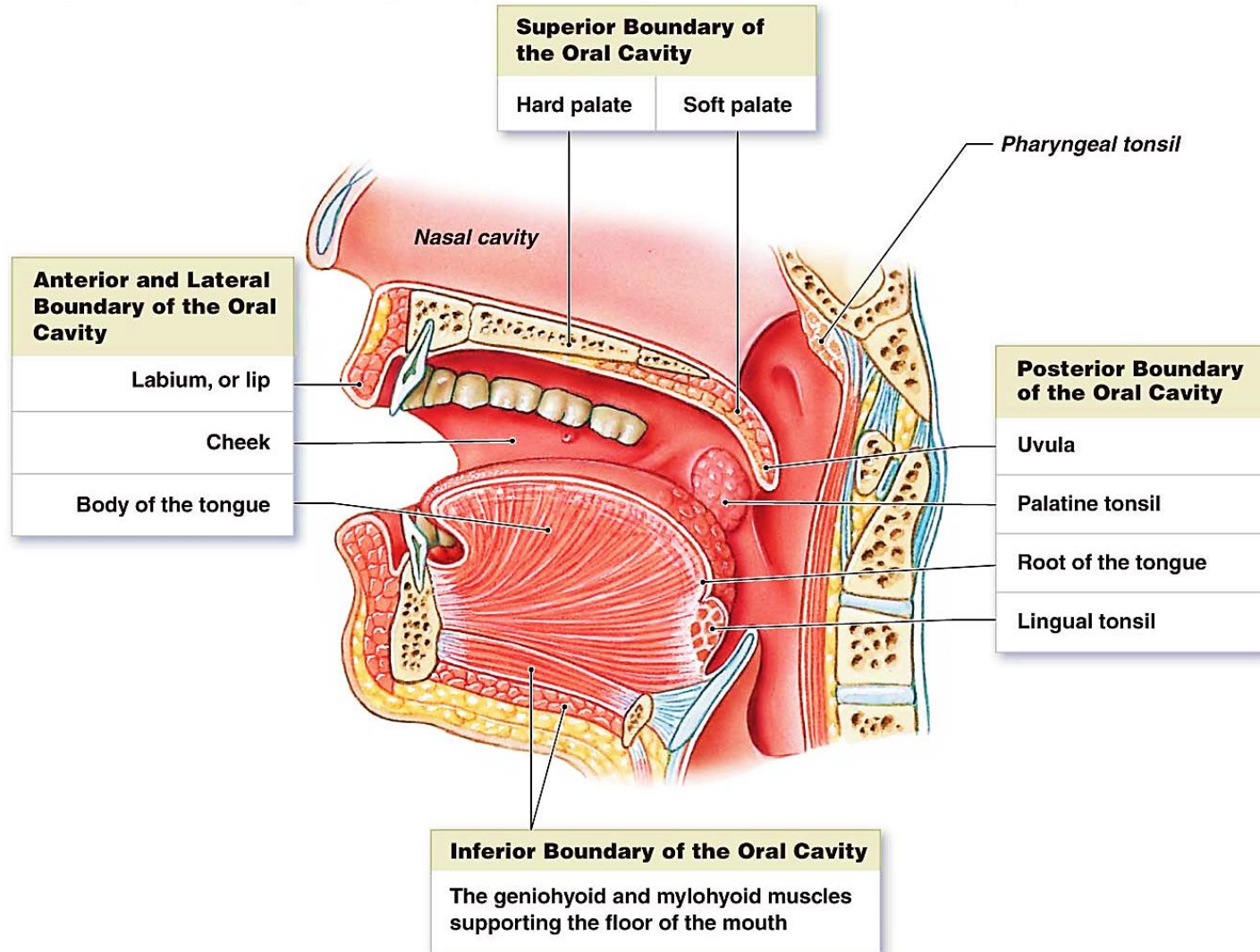
# Diagram of the oral cavity with key landmarks



# Oral cavity major features

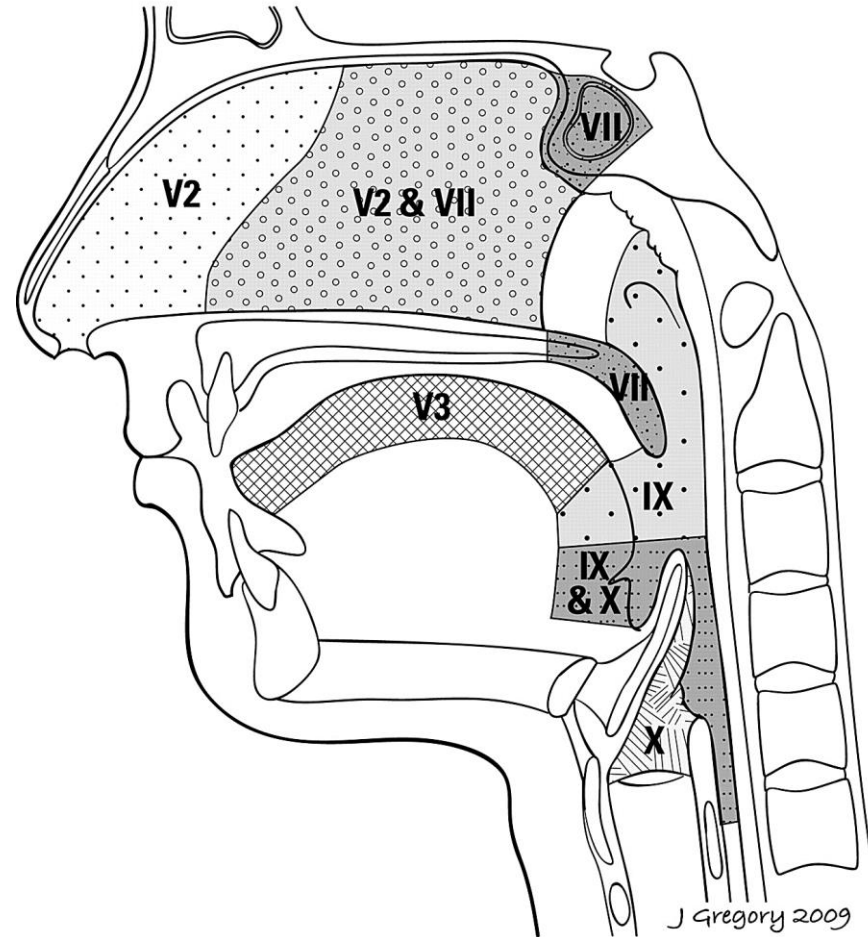


# Boundaries of the Oral Cavity



# Otalgia arising from head and neck sources.

## Referred Otalgia Pathways

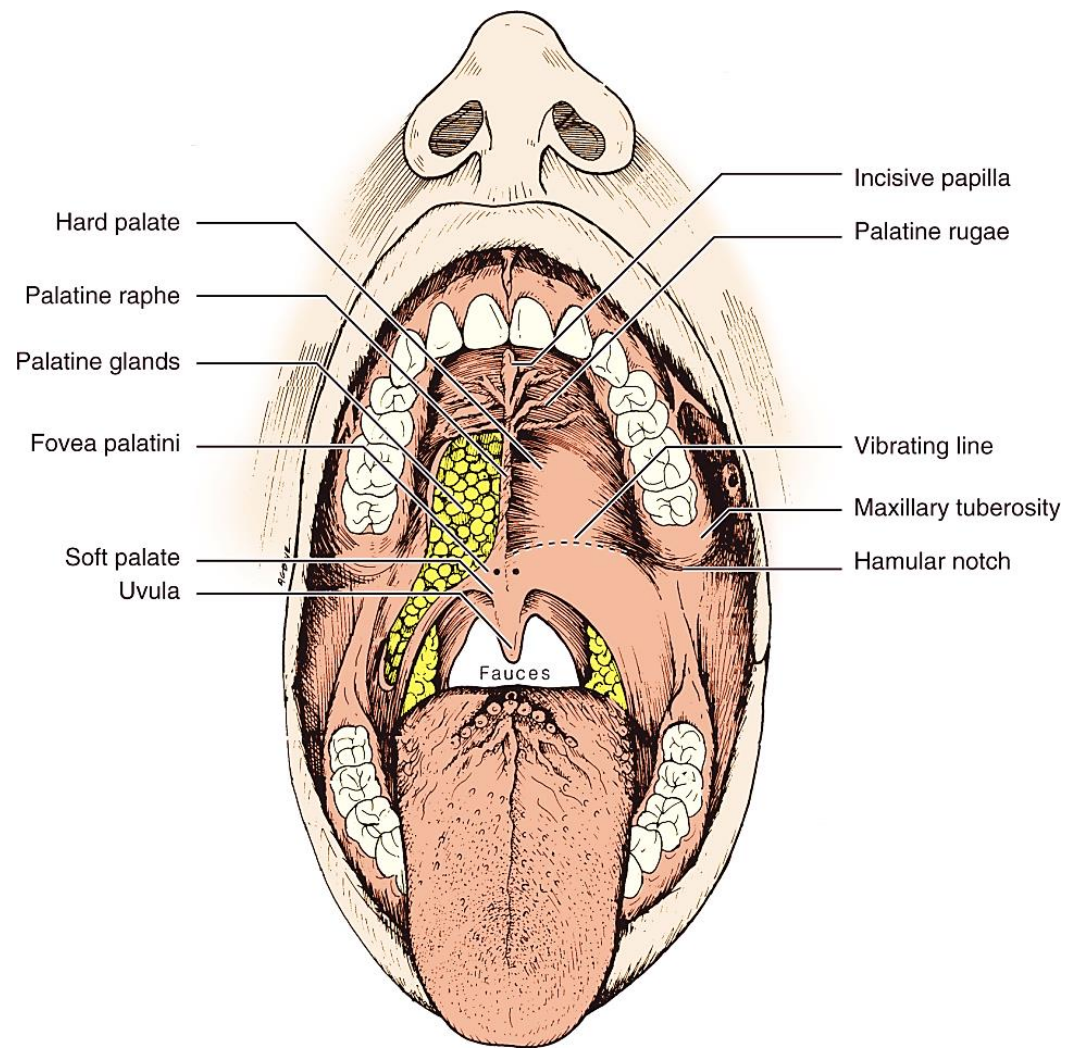


J Gregory 2009  
Adapted, with permission, from Todd J. Scarbrough, MD

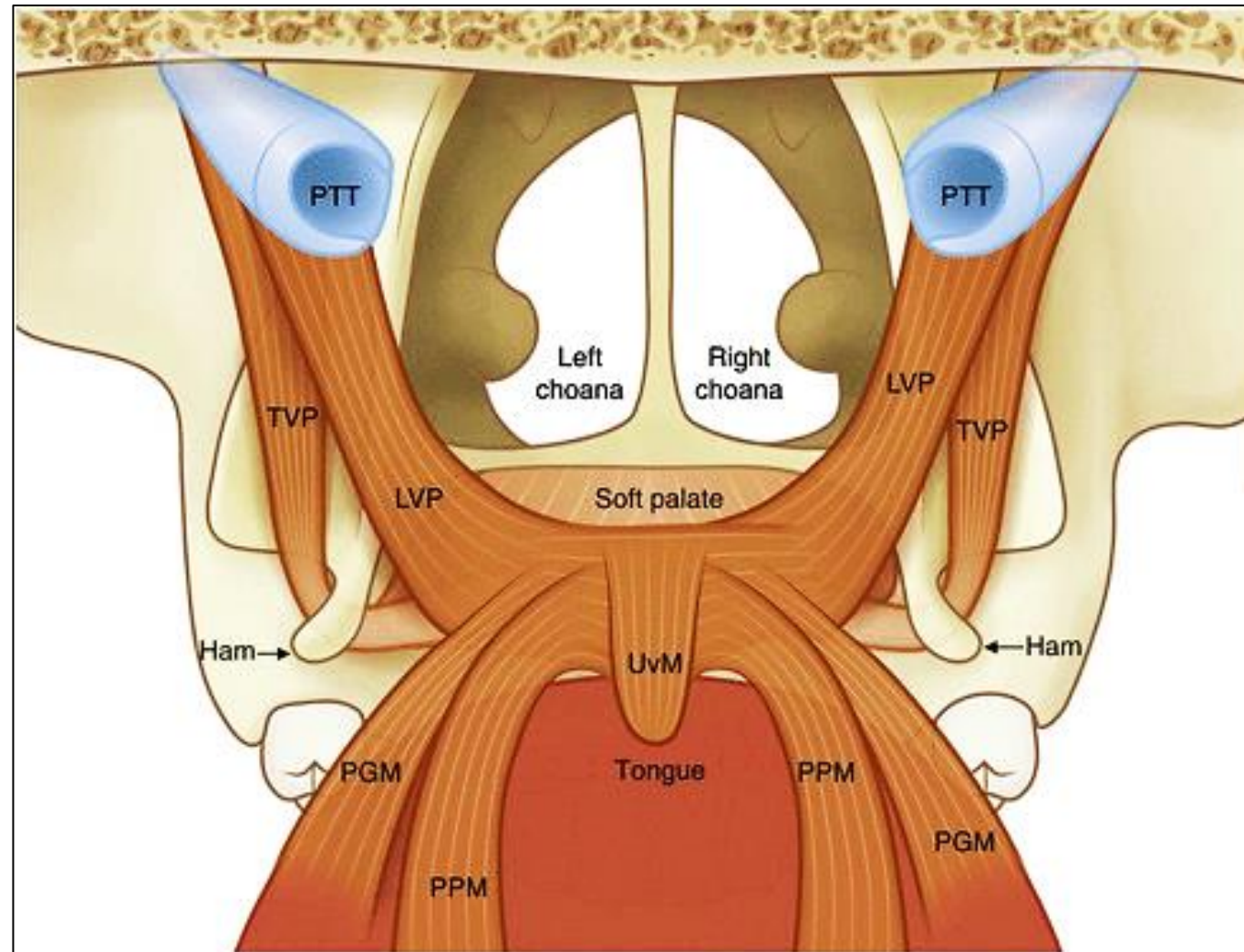
R.C. Chen et al. AJNR Am J Neuroradiol 2009;30:1817-1823



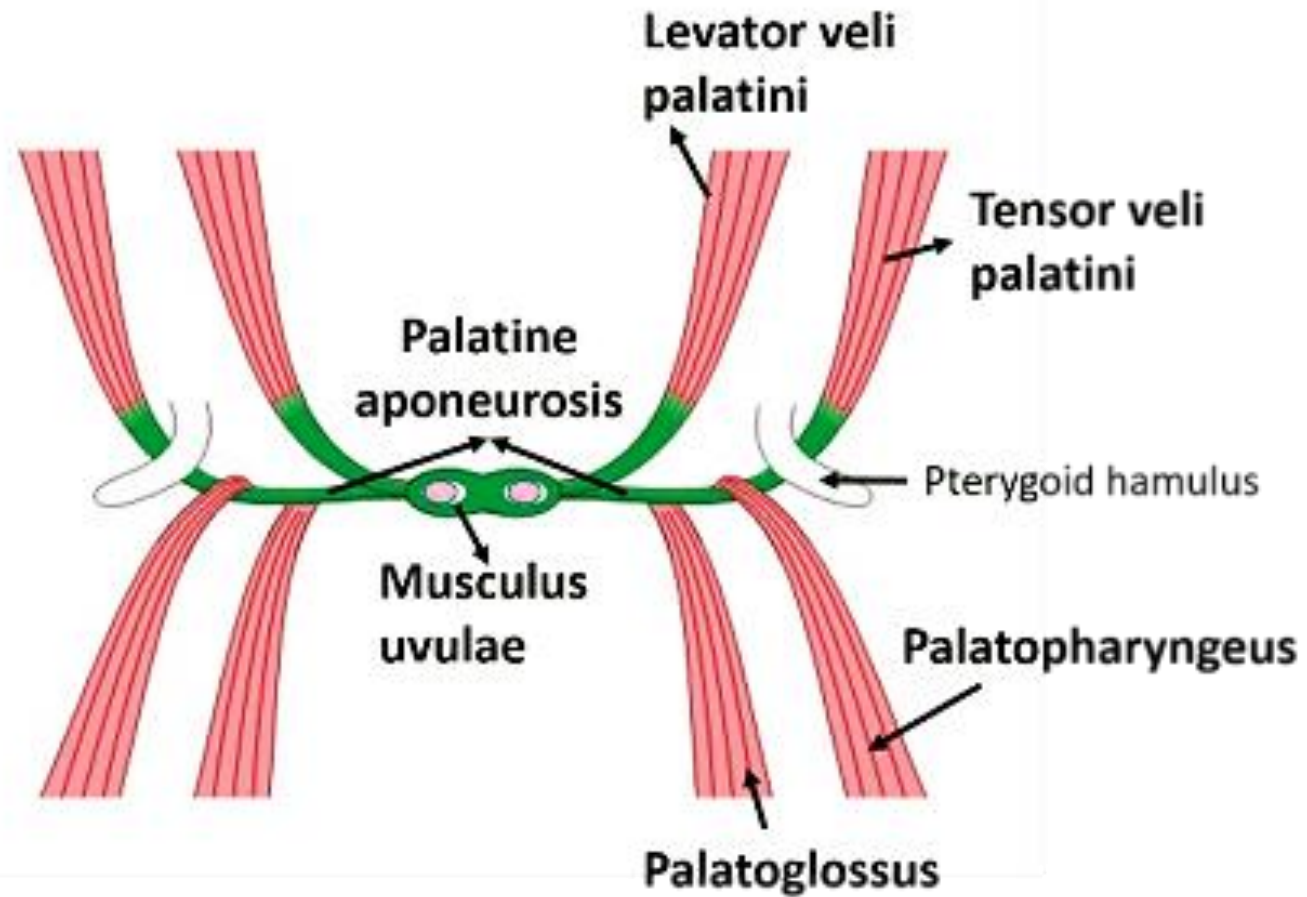
# Diagram of the oral cavity with key landmarks



# Posterior Fauces



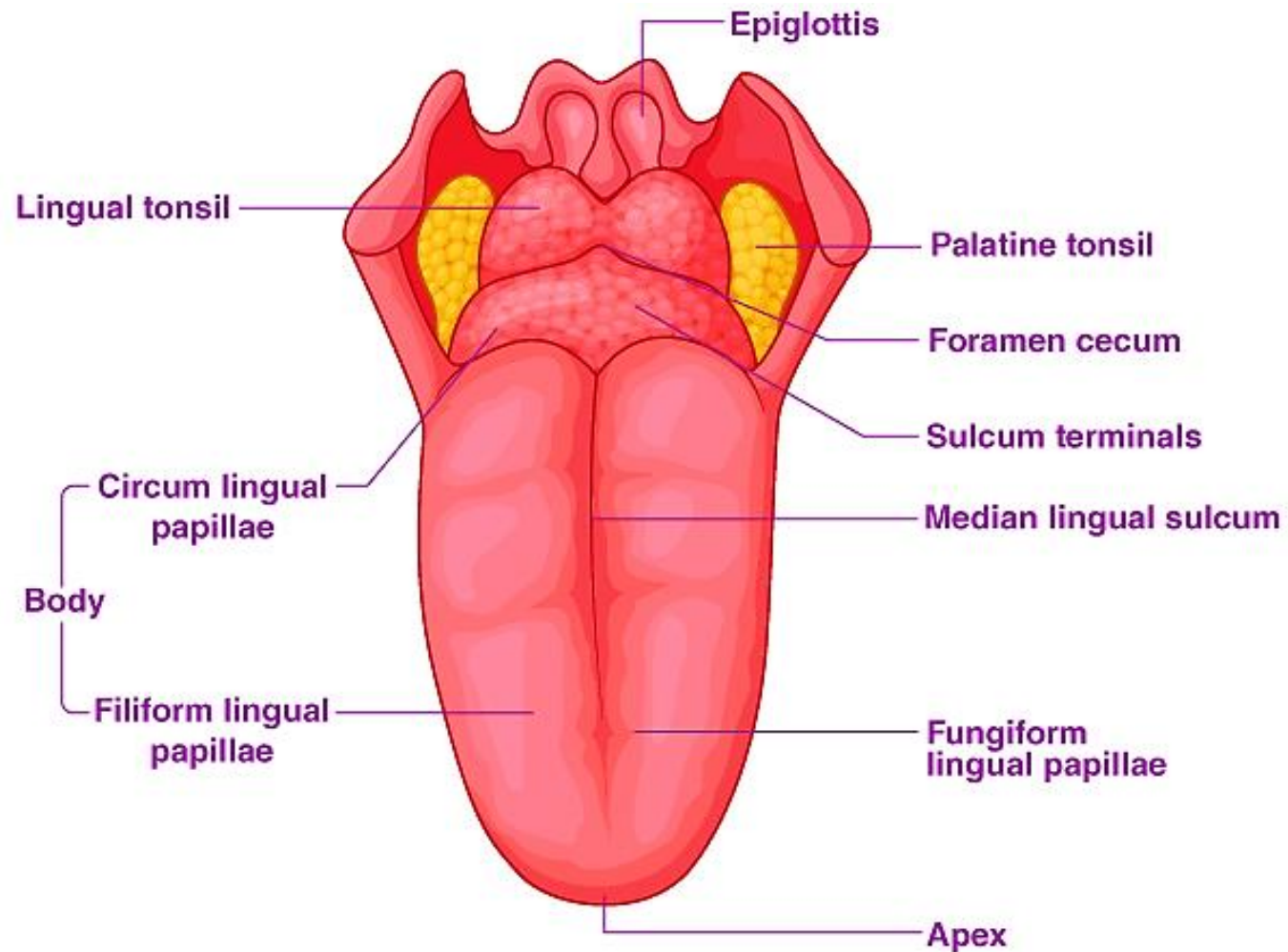
# Palatine Muscles



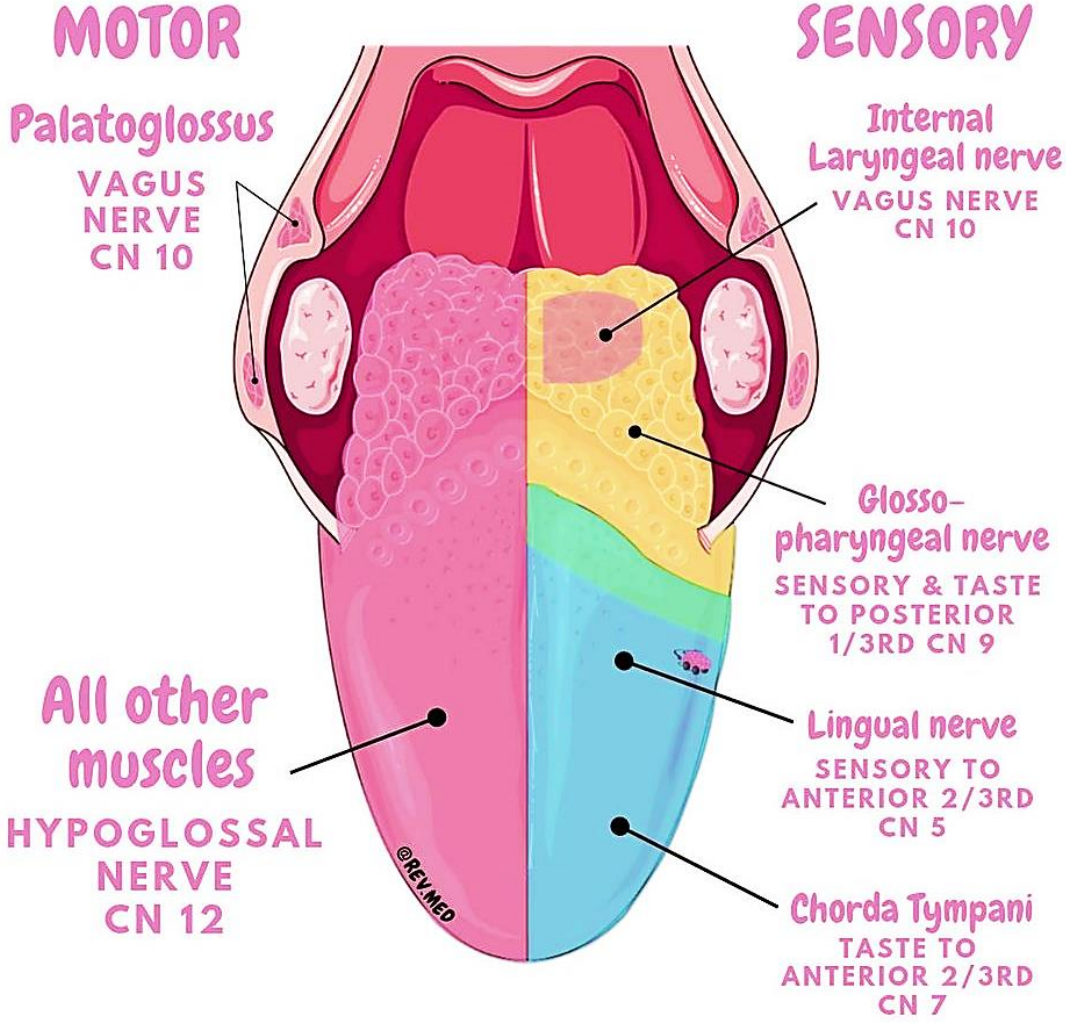
# **Section 2**

## **Functional Anatomy of the Tongue**

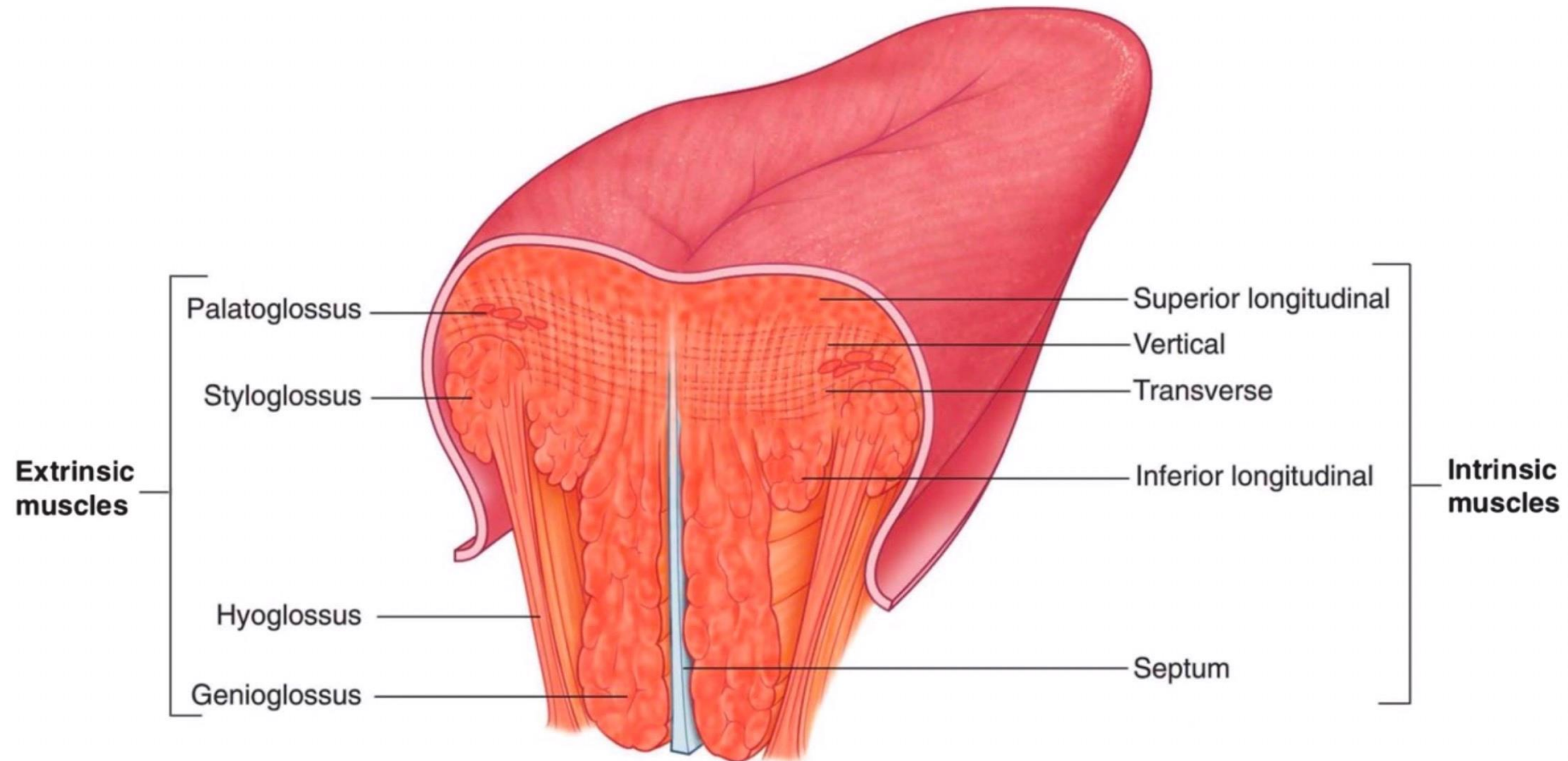
# Functional Anatomy



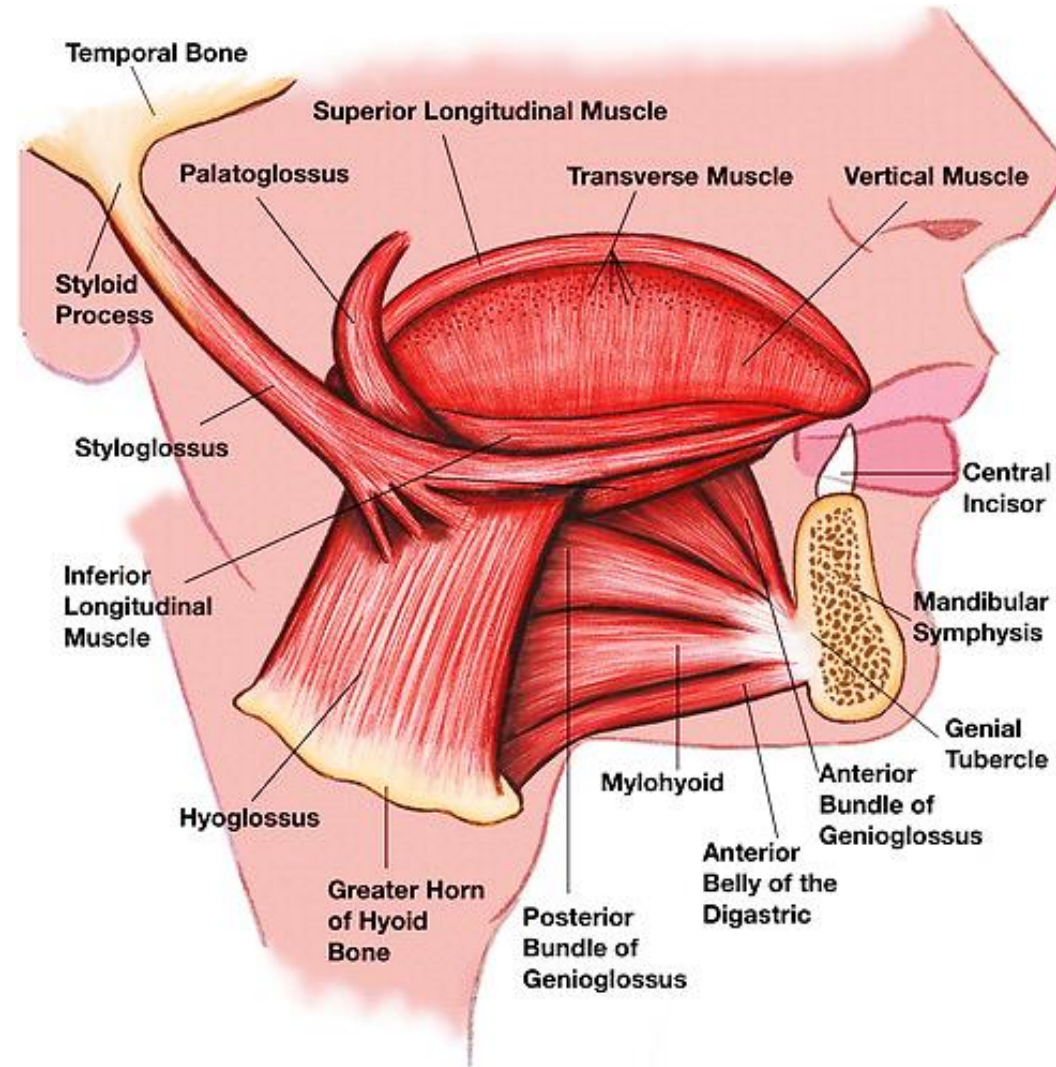
# Innervation of the Tongue



# Role of Intrinsic and Extrinsic Muscles

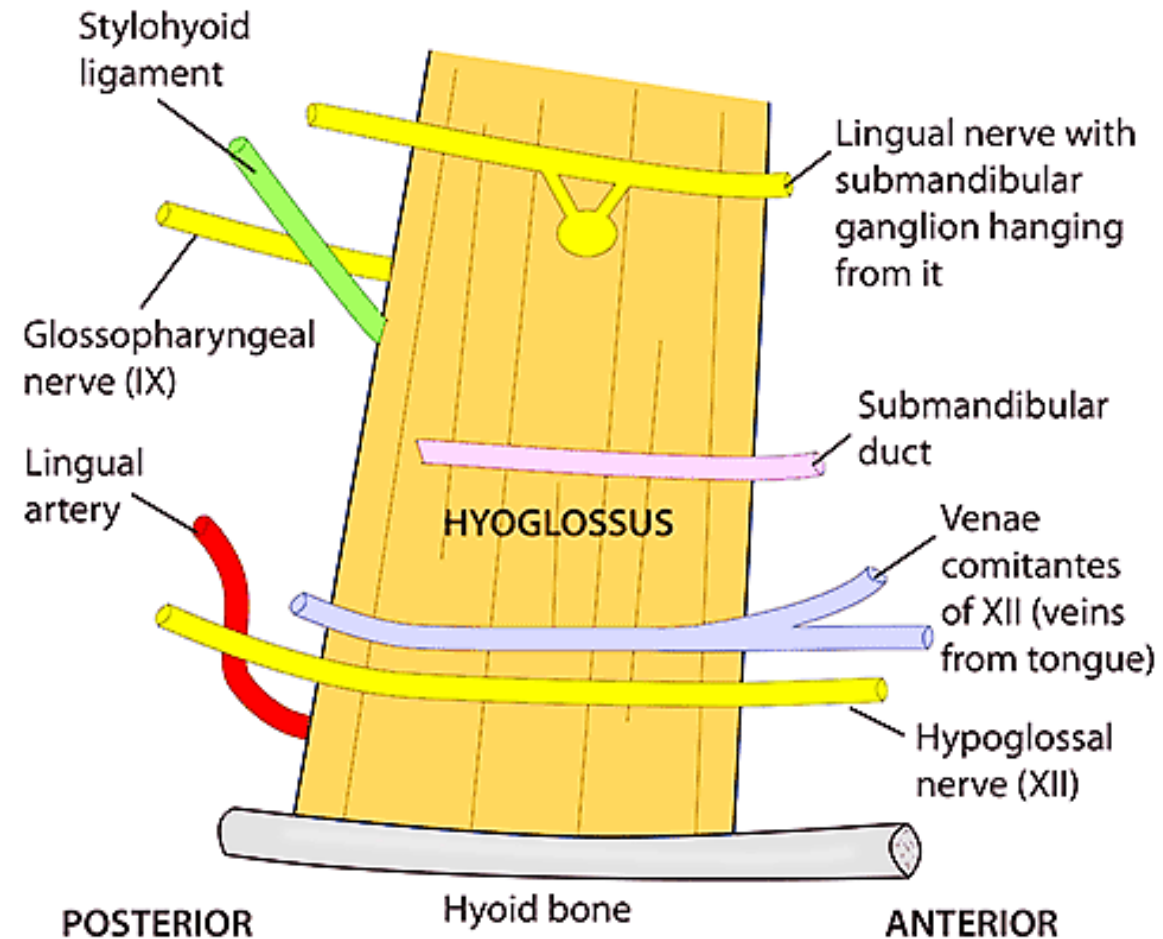


# Role of Intrinsic and Extrinsic Muscles

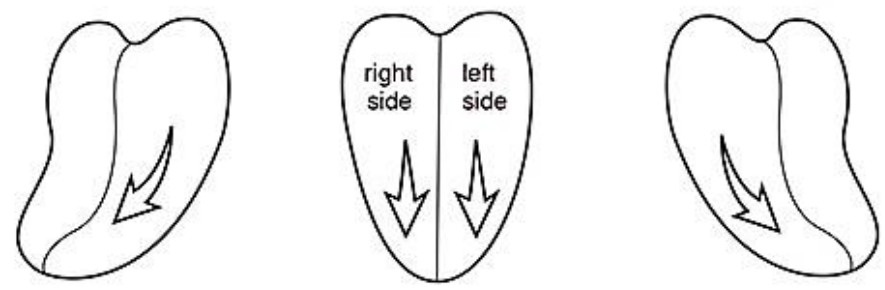
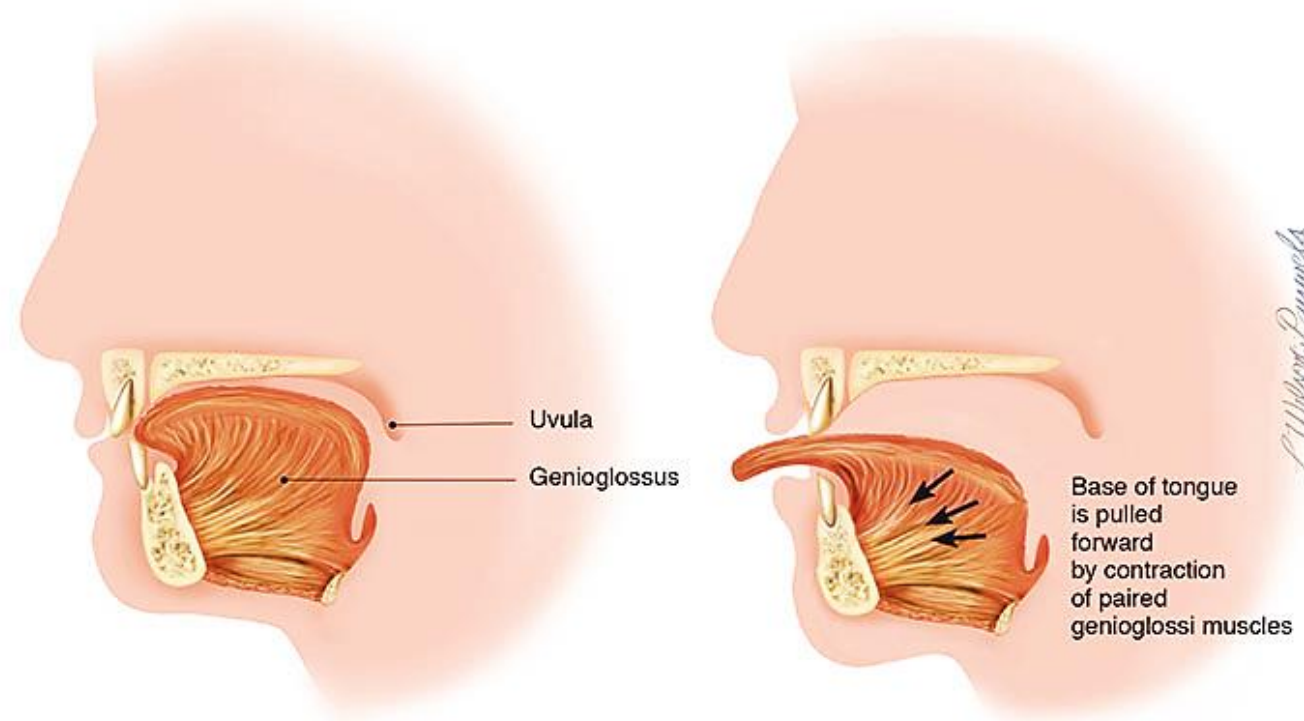




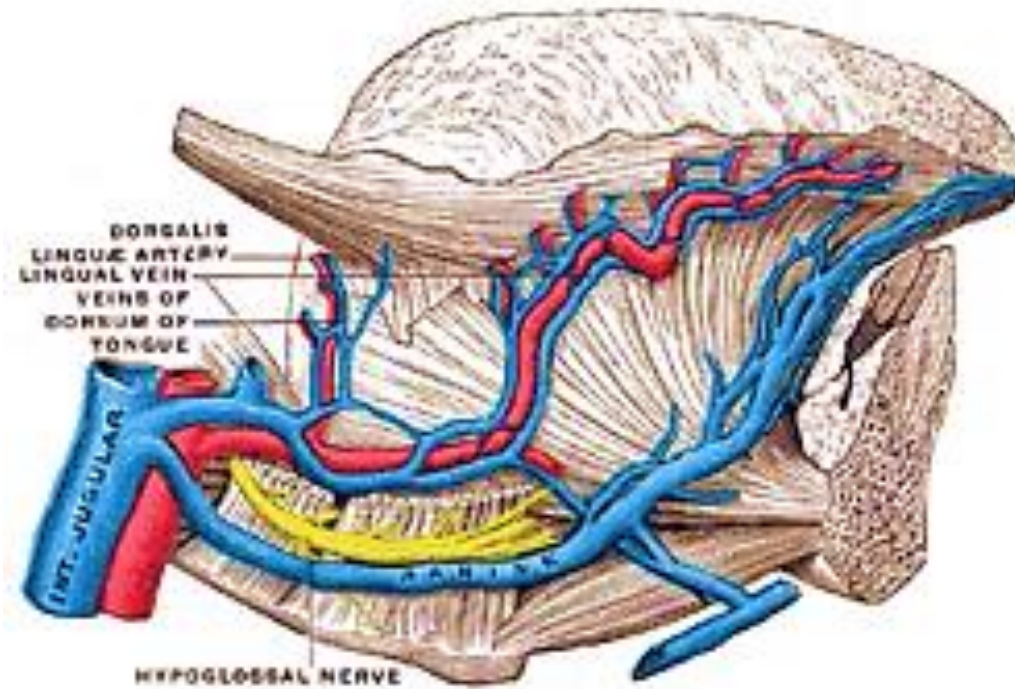
# Hyoglossus and its relations



# Tongue Deviation after Hypoglossal Nerve Injuries



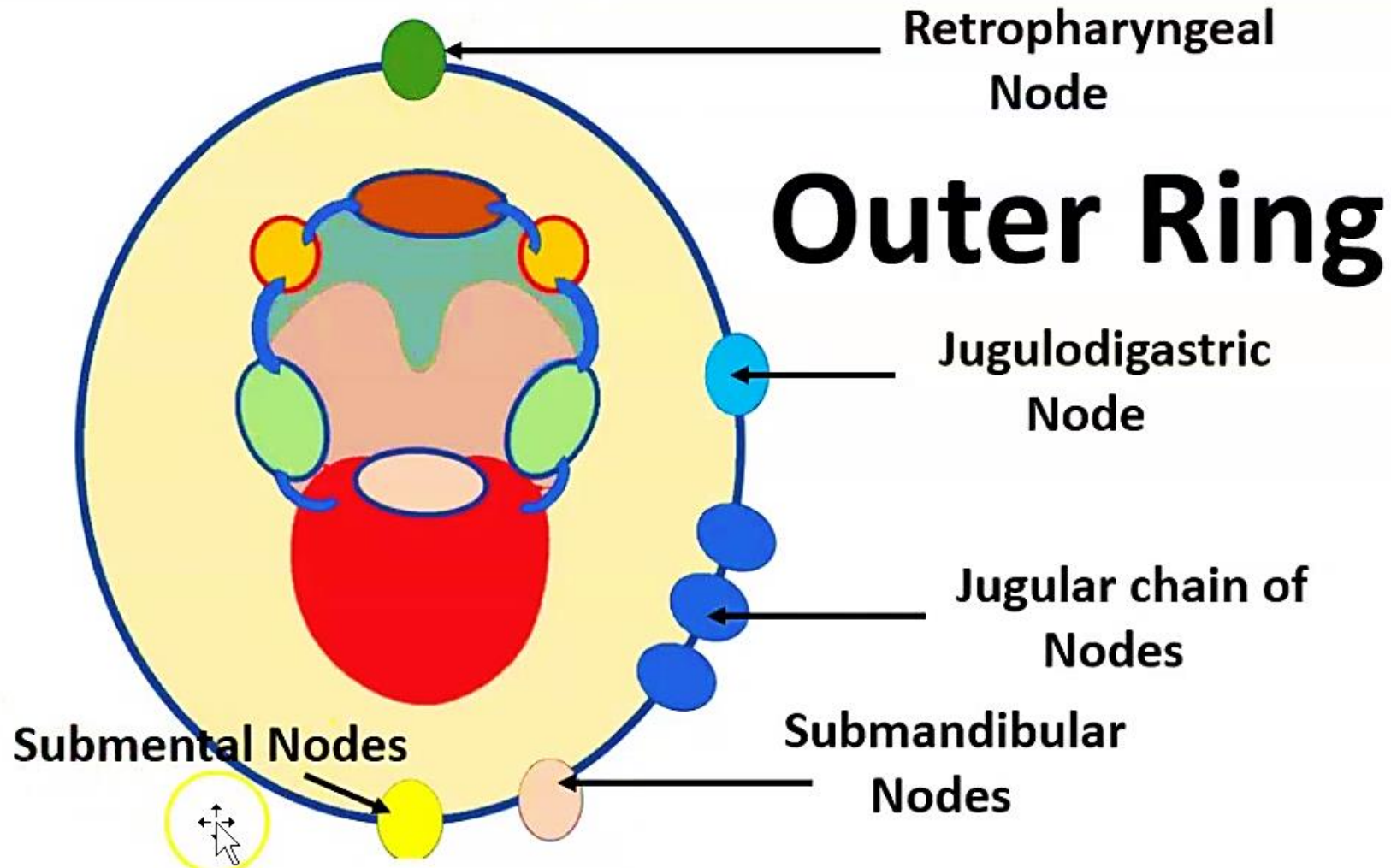
# Arteries and Veins



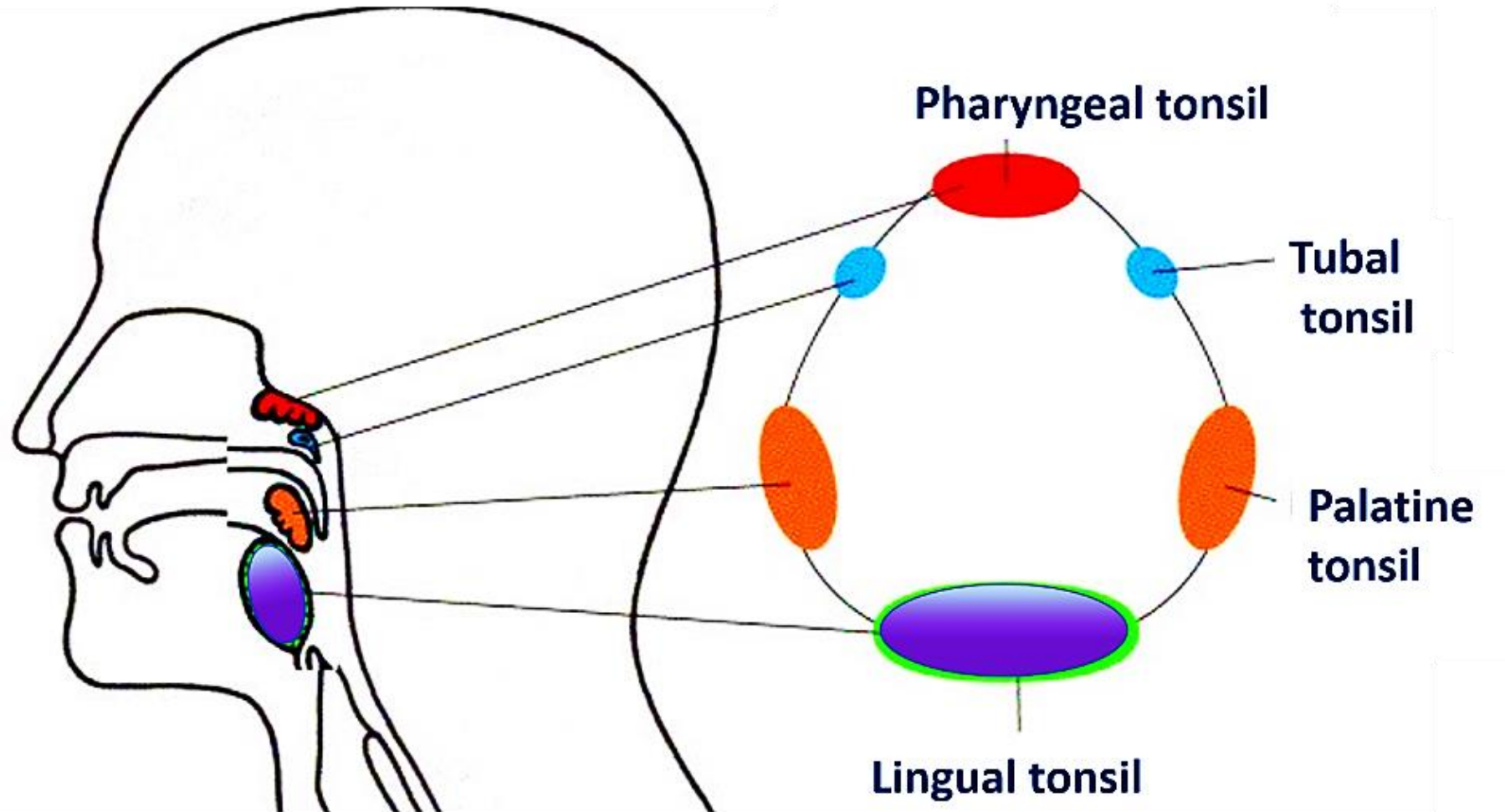
## **Section 3**

# **Lymphoid Tissues in the Oral Cavity**

# Lymphoid Tissue Overview



# Tonsils



# Anatomy of Salivary Glands and Ducts

Understanding Structure and Function

**Dr Maan Al-Abbasi**

**PhD, MBChB, MD**

# Learning



# Objectives

Describe the key anatomical relations of the submandibular and sublingual salivary glands, the course of their ducts into the oral cavity and their autonomic secretomotor innervation.

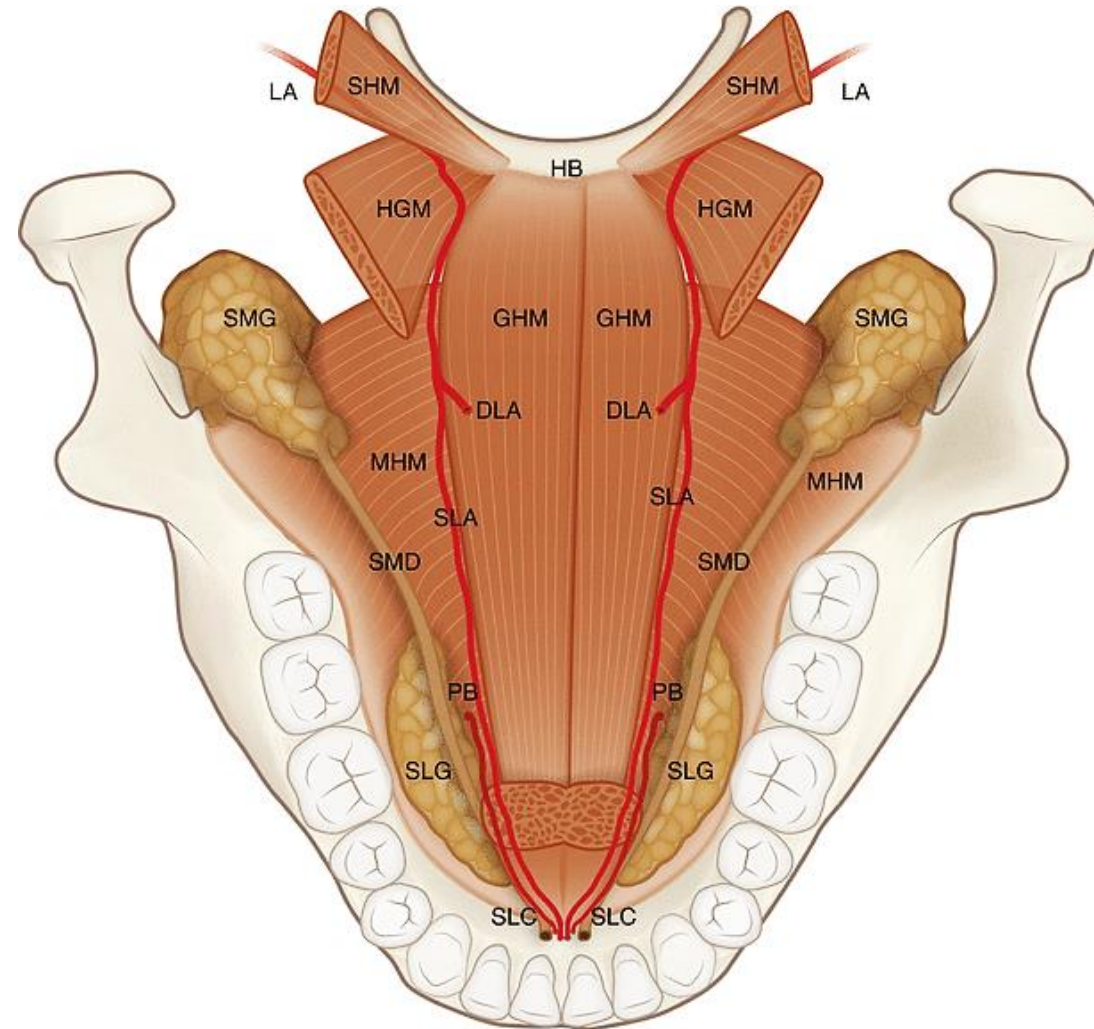
Appreciate the narrow points of the ducts in relation to salivary stone impaction.

Explain the muscles of the floor of the mouth.

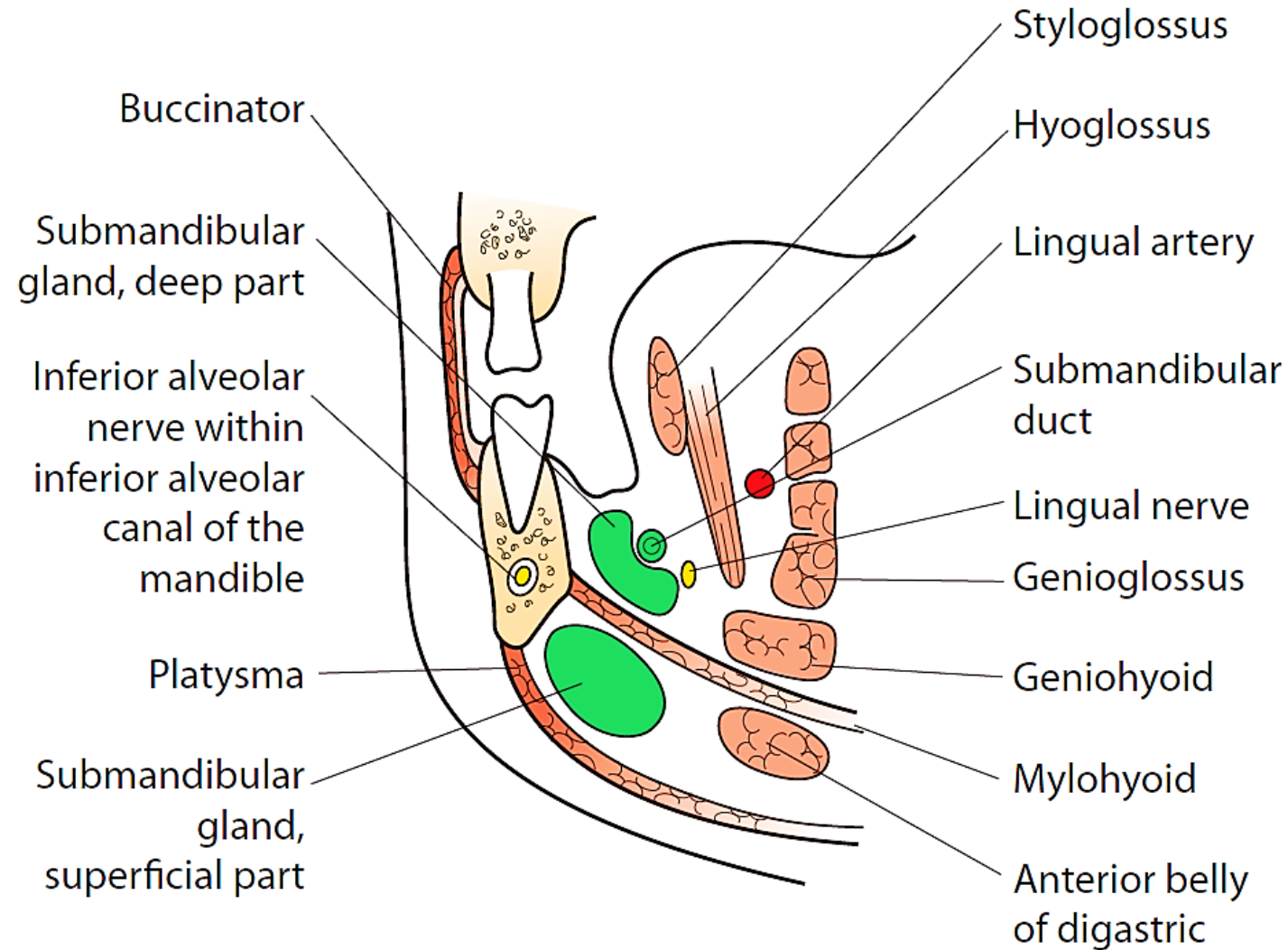


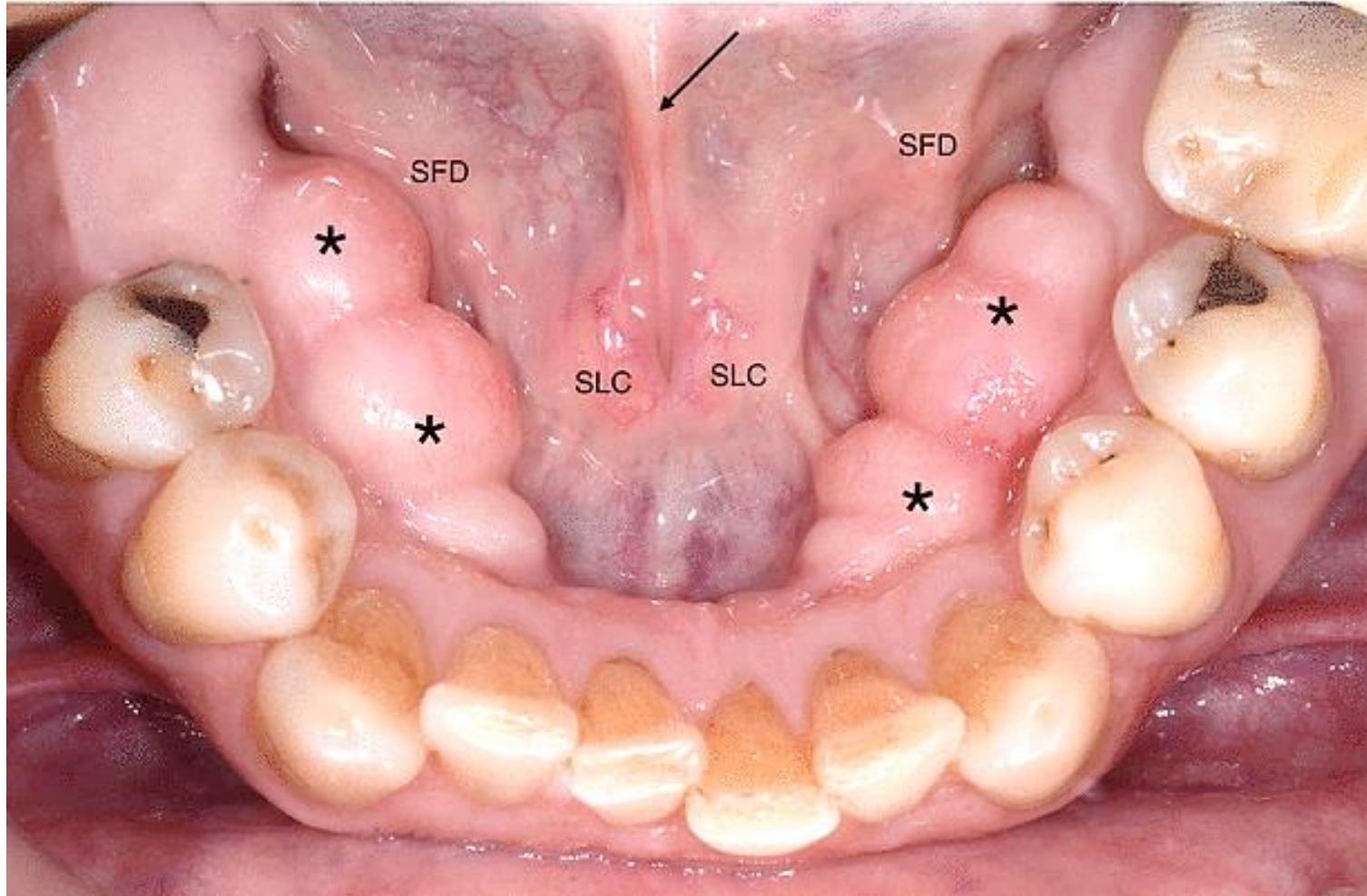
# Appendix: Muscles of the floor of the mouth

# Floor of the Mouth

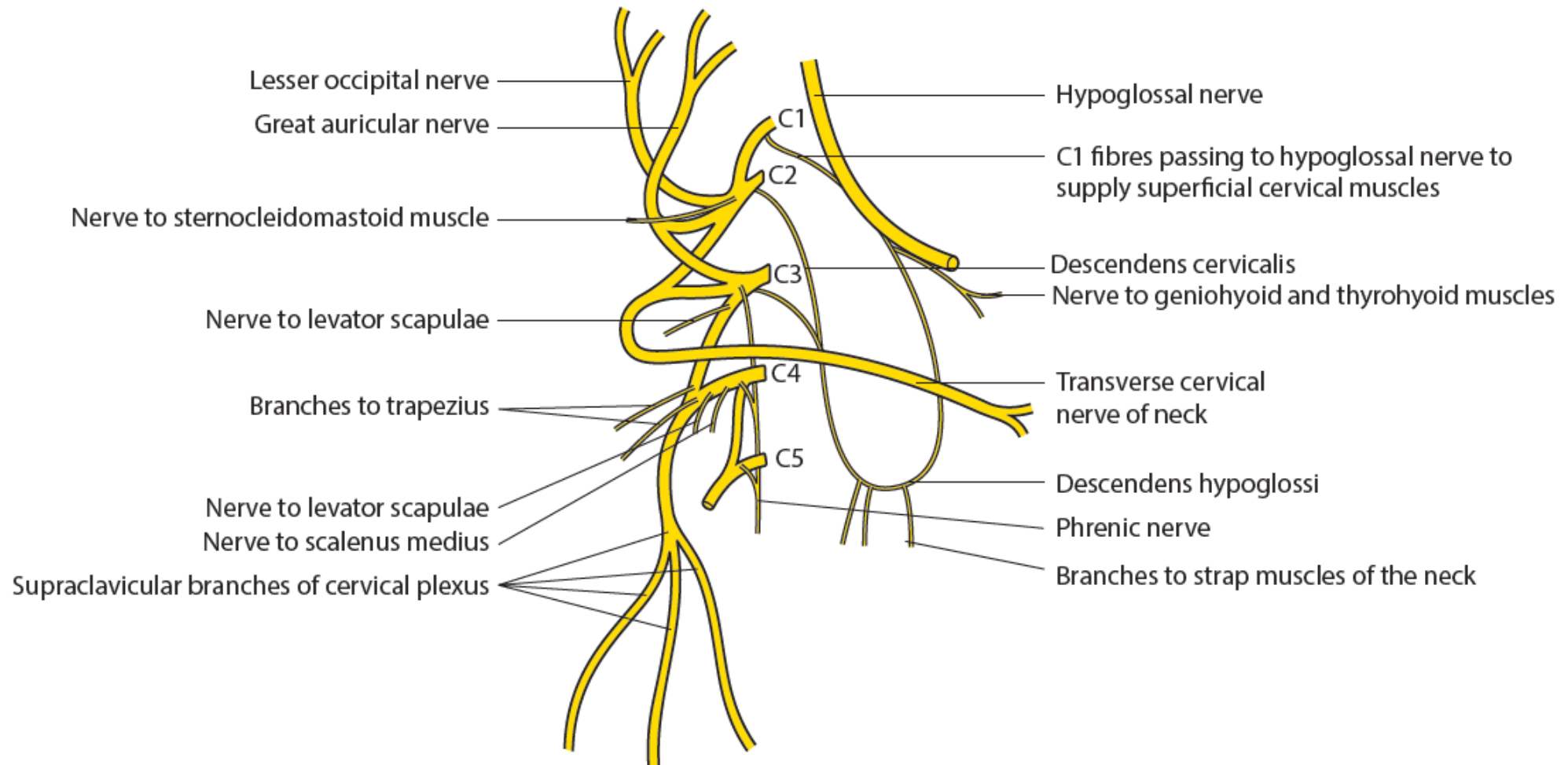


# Floor of the mouth – Coronal section

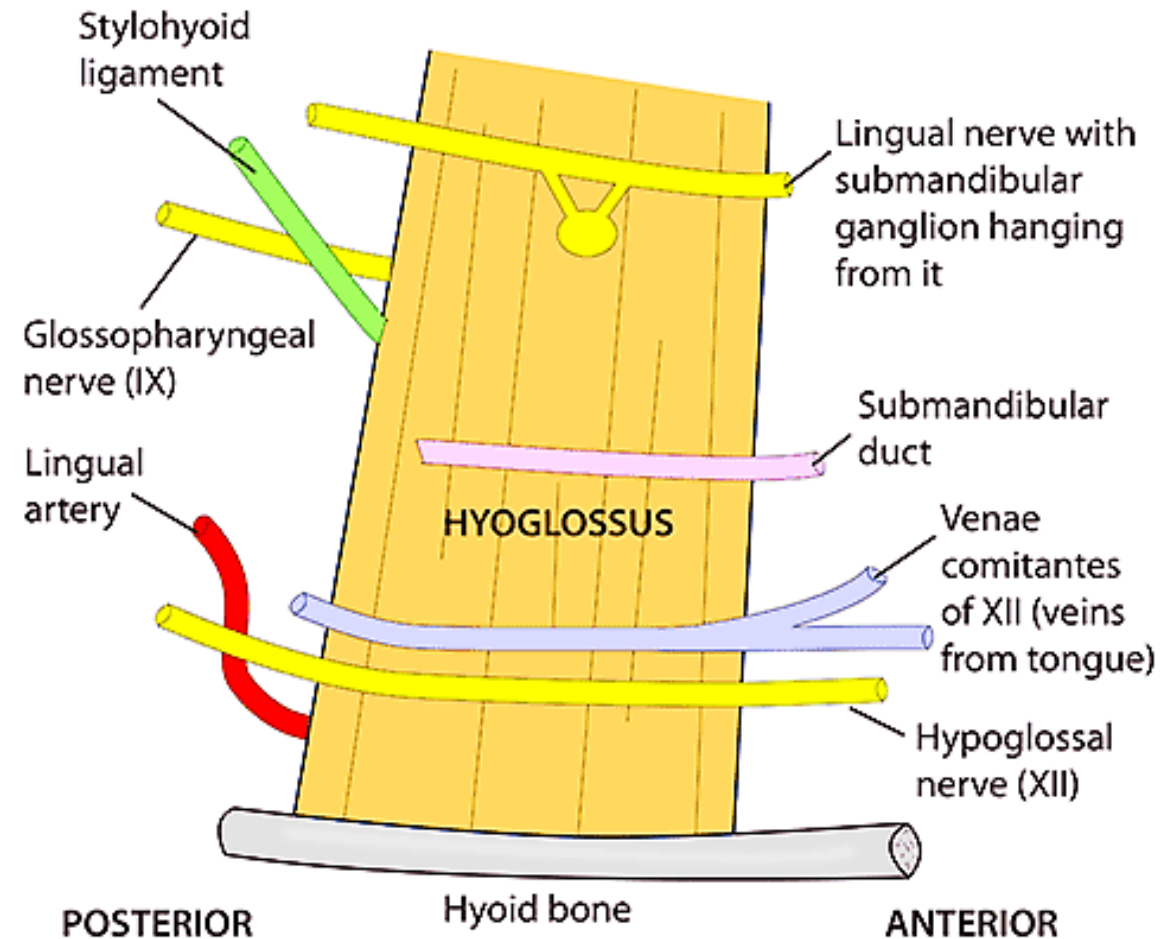




# Hypoglossal Nerve



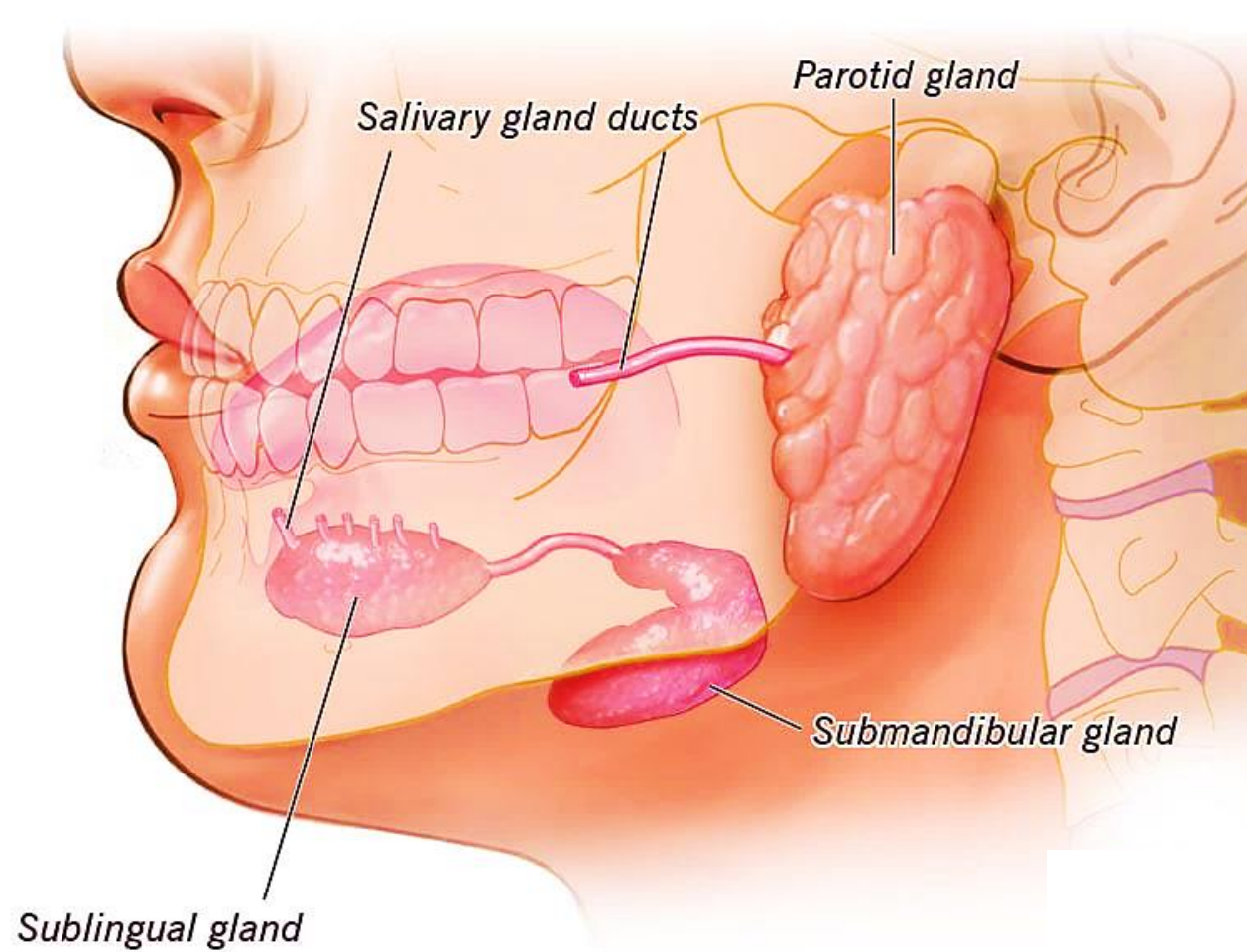
# Hyoglossus and its relations



# **Section 1**

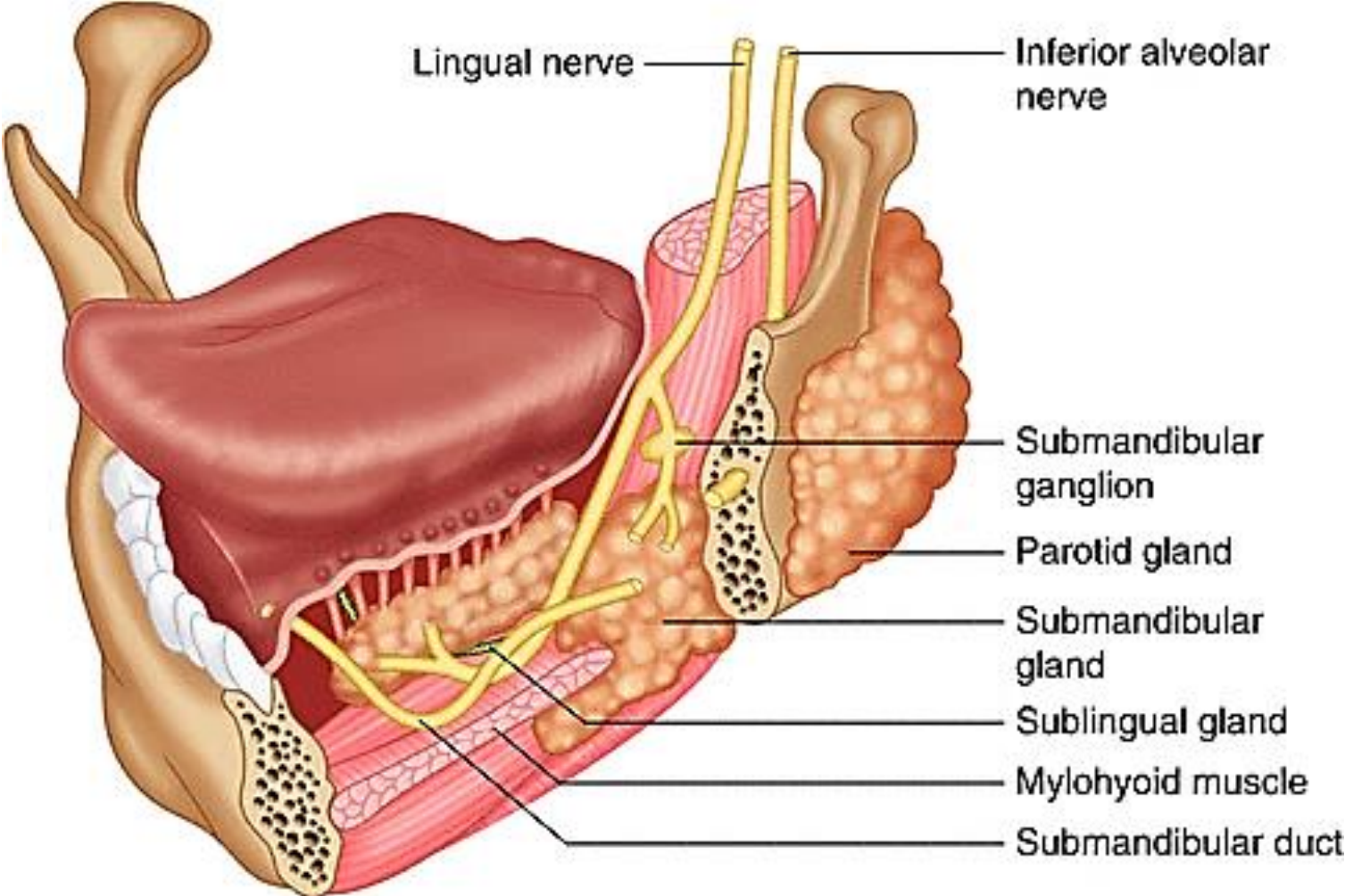
## **Salivary Glands Anatomy**

# Salivary Glands





# Submandibular & Sublingual Salivary Glands

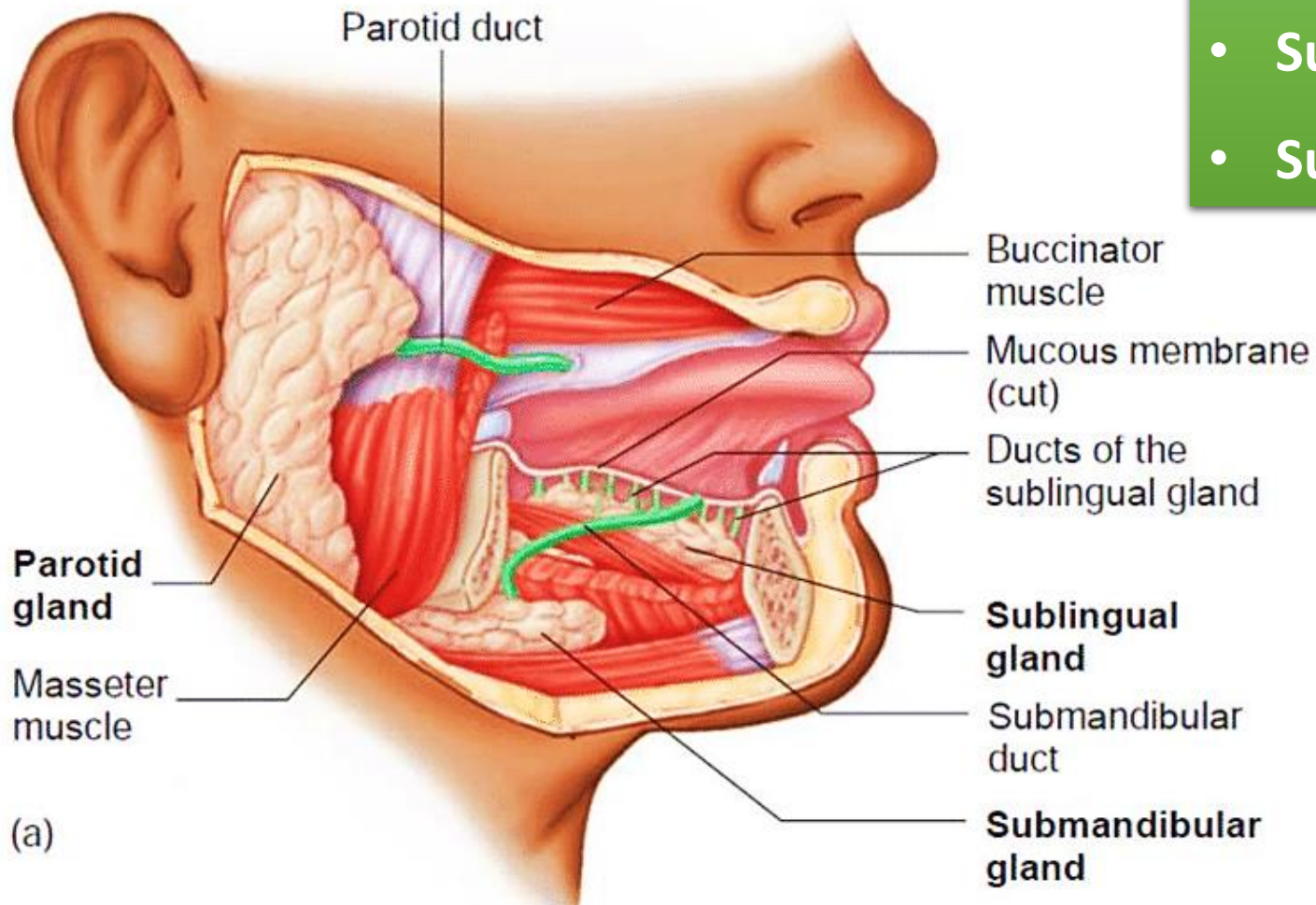


## **Section 2**

# **Salivary Ducts and Their Course**

# Overview of Salivary Ducts

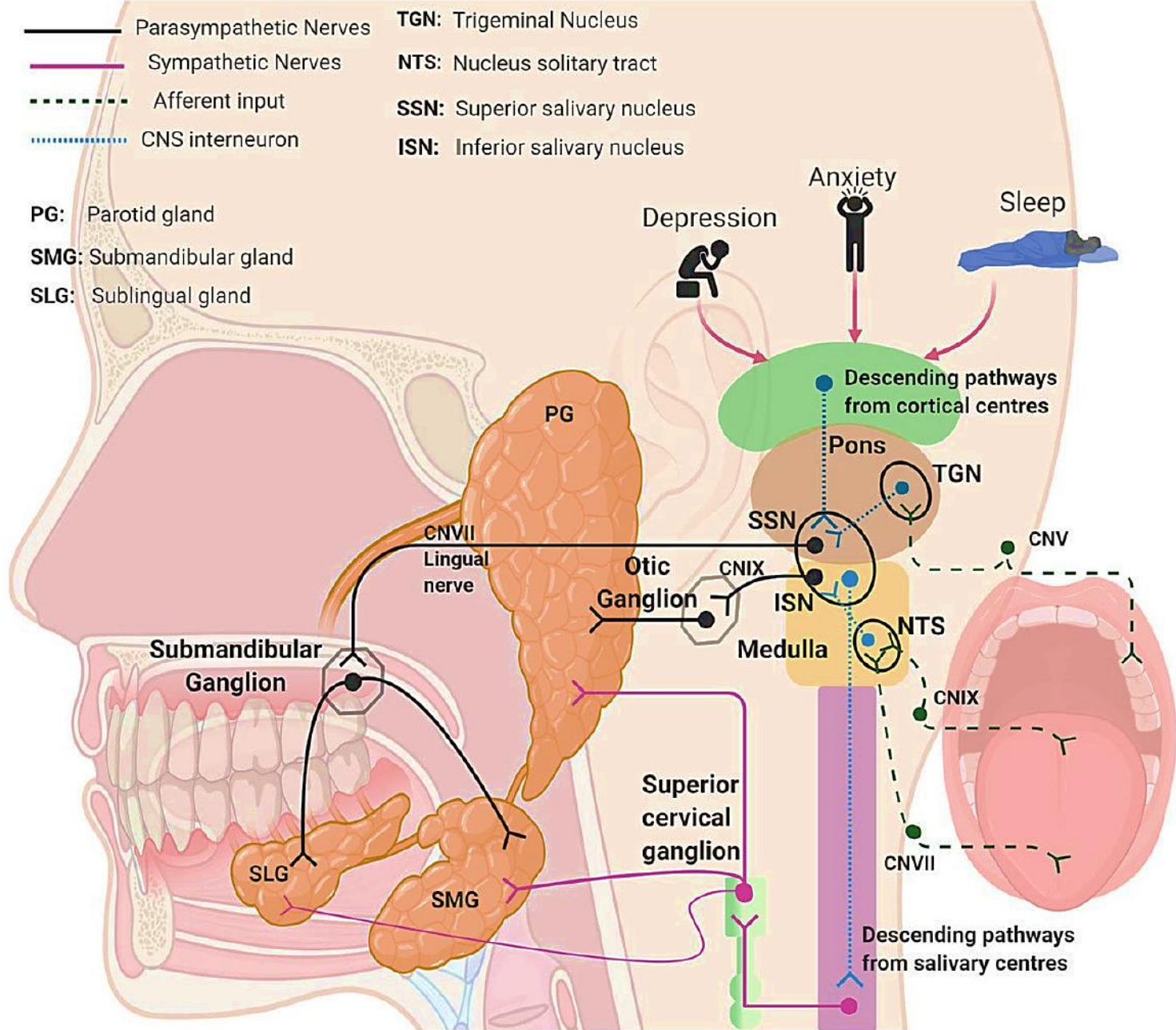
- Parotid Duct (Stensen's Duct)
- Submandibular Duct (Wharton's Duct)
- Sublingual Ducts (Bartholin's Duct)



## **Section 3**

# **Autonomic Secretomotor Innervation**

# Autonomic Innervation Overview



## **Section 4**

# **Salivary Stone Impaction**

# Narrow Points and Salivary Stone Impaction

Submandibular duct stone



Parotid duct stone

