



Anterior Triangles of the Neck

DR AMAL

ALBTOOSH

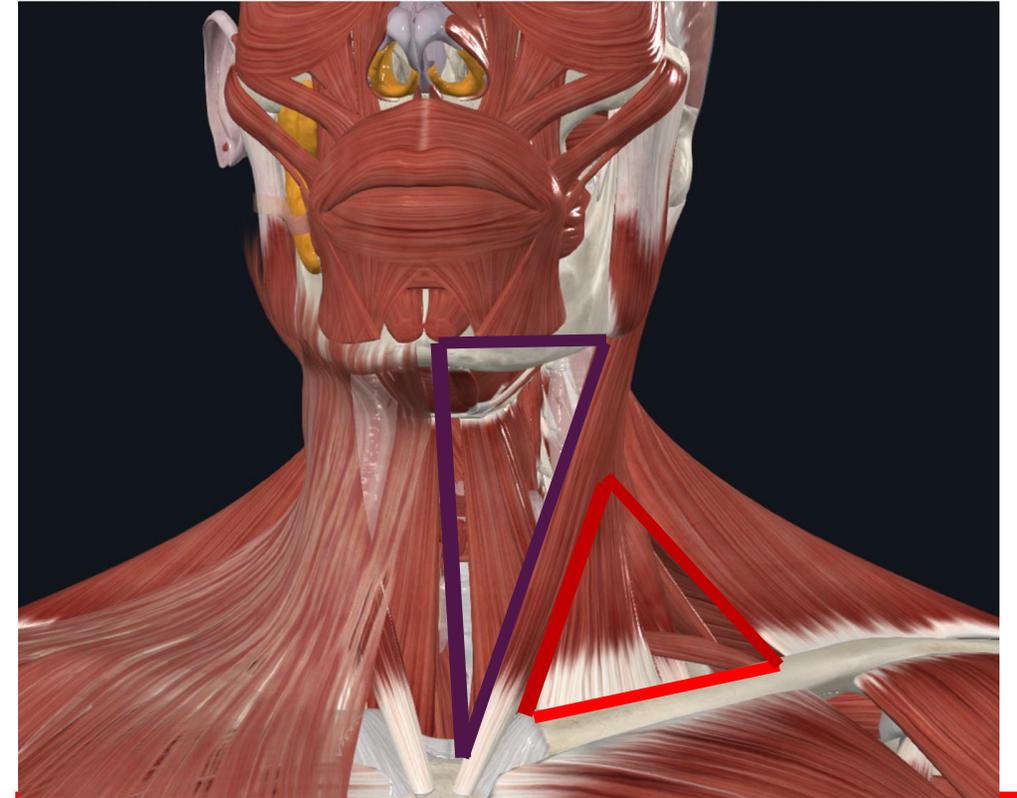
Triangles of the Neck

The **sternocleidomastoid muscle** divides the neck into the anterior and the posterior triangles

ANTERIOR TRIANGLE

The anterior triangle is bounded:

- ✓ **above** by the body of the mandible
- ✓ **posteriorly** by the sternocleidomastoid muscle,
- ✓ **anteriorly** by the midline



POSTERIOR TRIANGLE

The posterior triangle is bounded posteriorly by the trapezius muscle, anteriorly by the sternocleidomastoid muscle, and inferiorly by the clavicle

ANTERIOR
TRIANGLE

SUBMANDIBULAR

SUBMENTAL

CAROTID

MUSCULAR

Anterior belly of digastric m

Posterior belly of digastric m

Superior belly of omohyoid

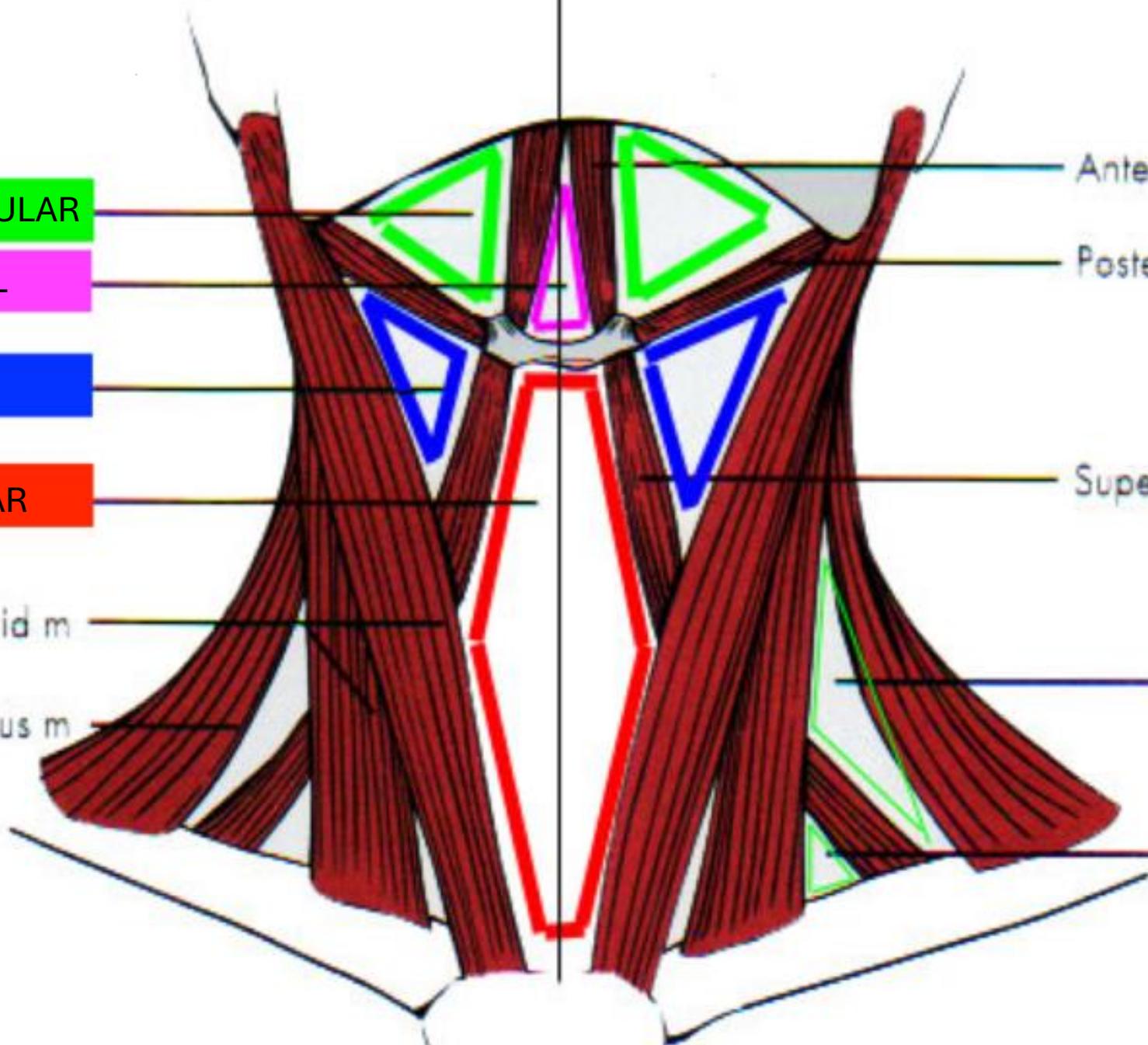
Sternocleidomastoid m

Trapezius m

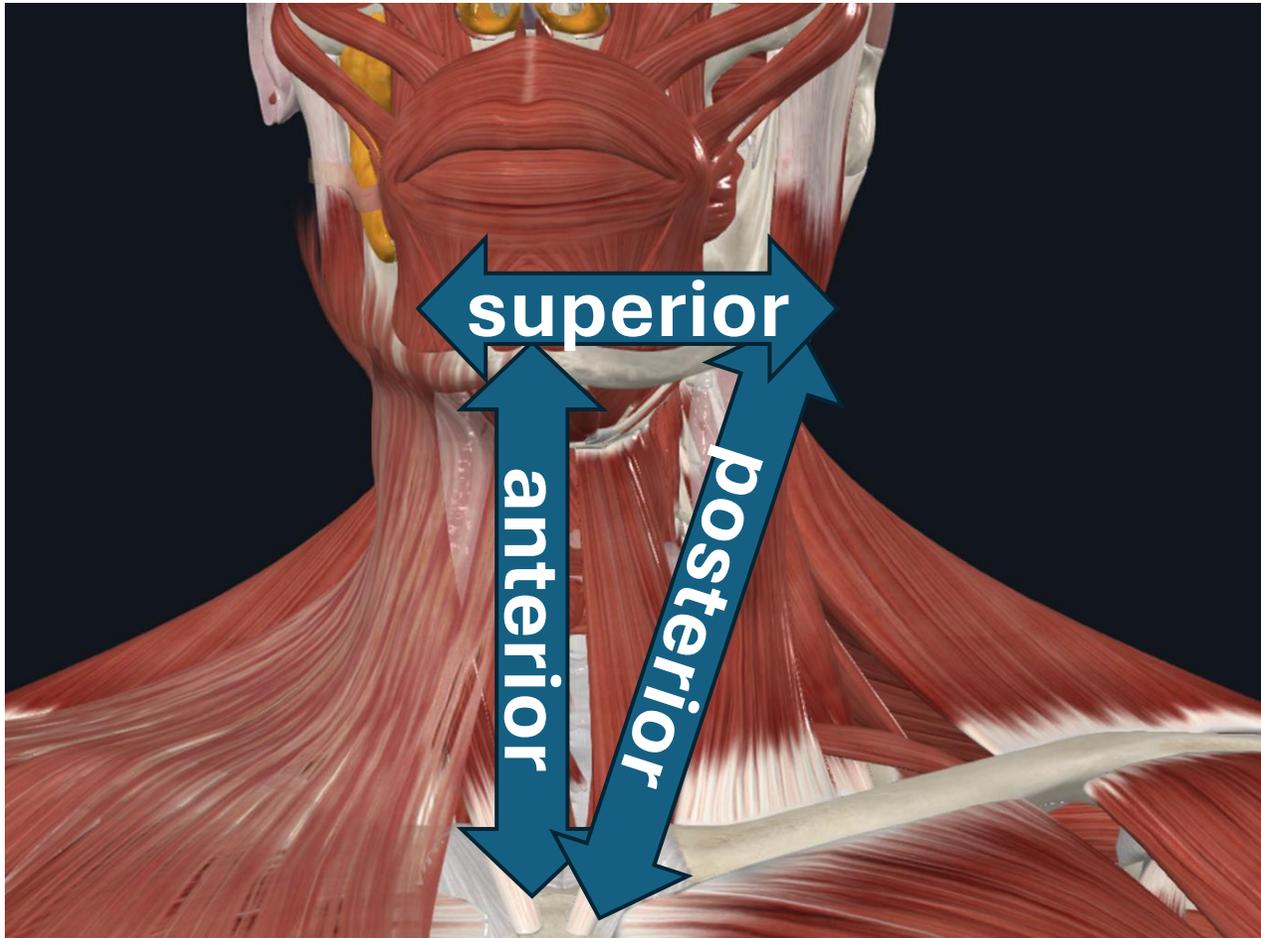
Occipital t

Subclavian tr

POSTERIOR
TRIANGLE



Boundaries of the Anterior Triangle



Anterior Border

The anterior border of the triangle is the midline of the neck from chin to sternum.

Posterior Border

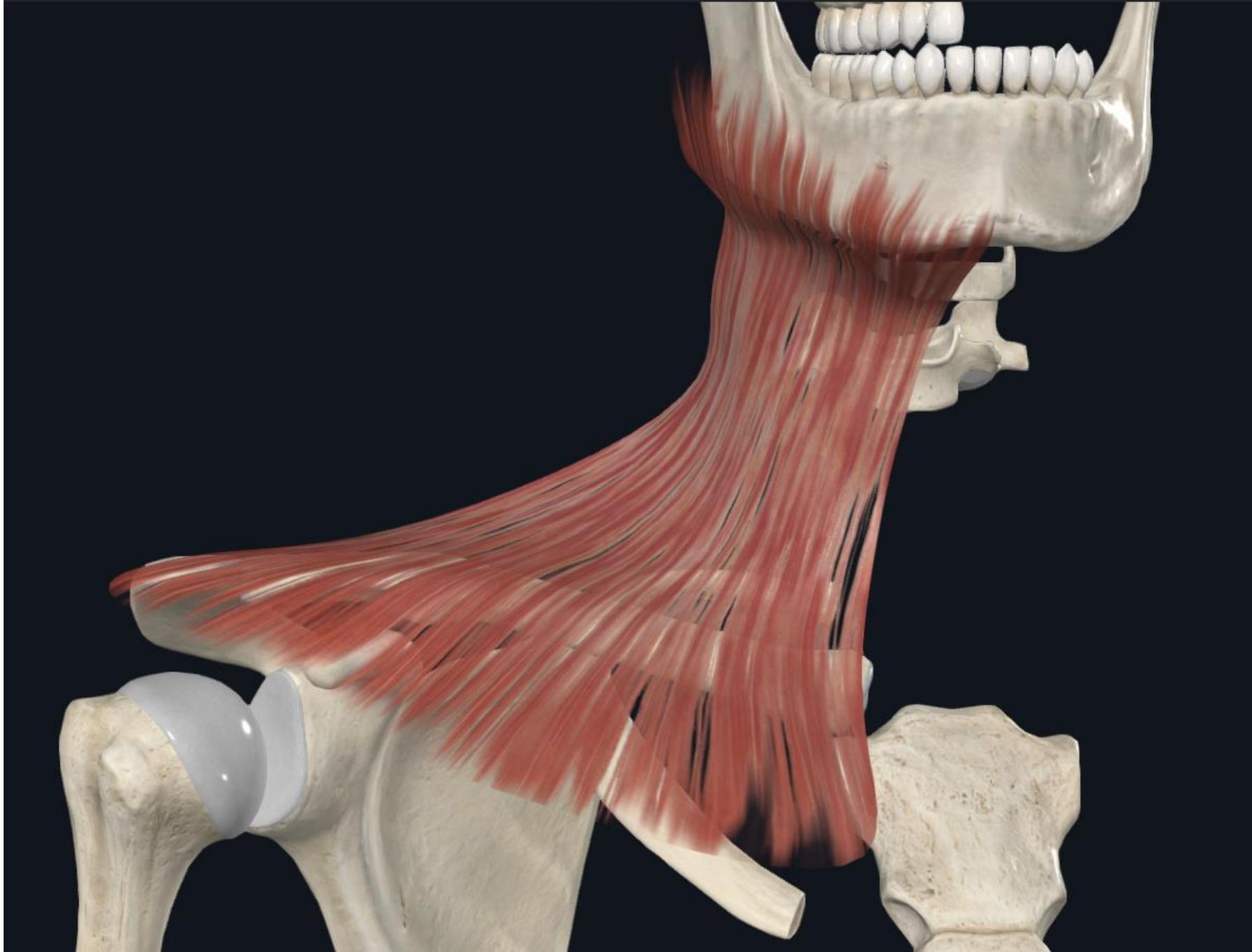
The posterior border is the anterior border of the sternocleidomastoid muscle on the neck side.

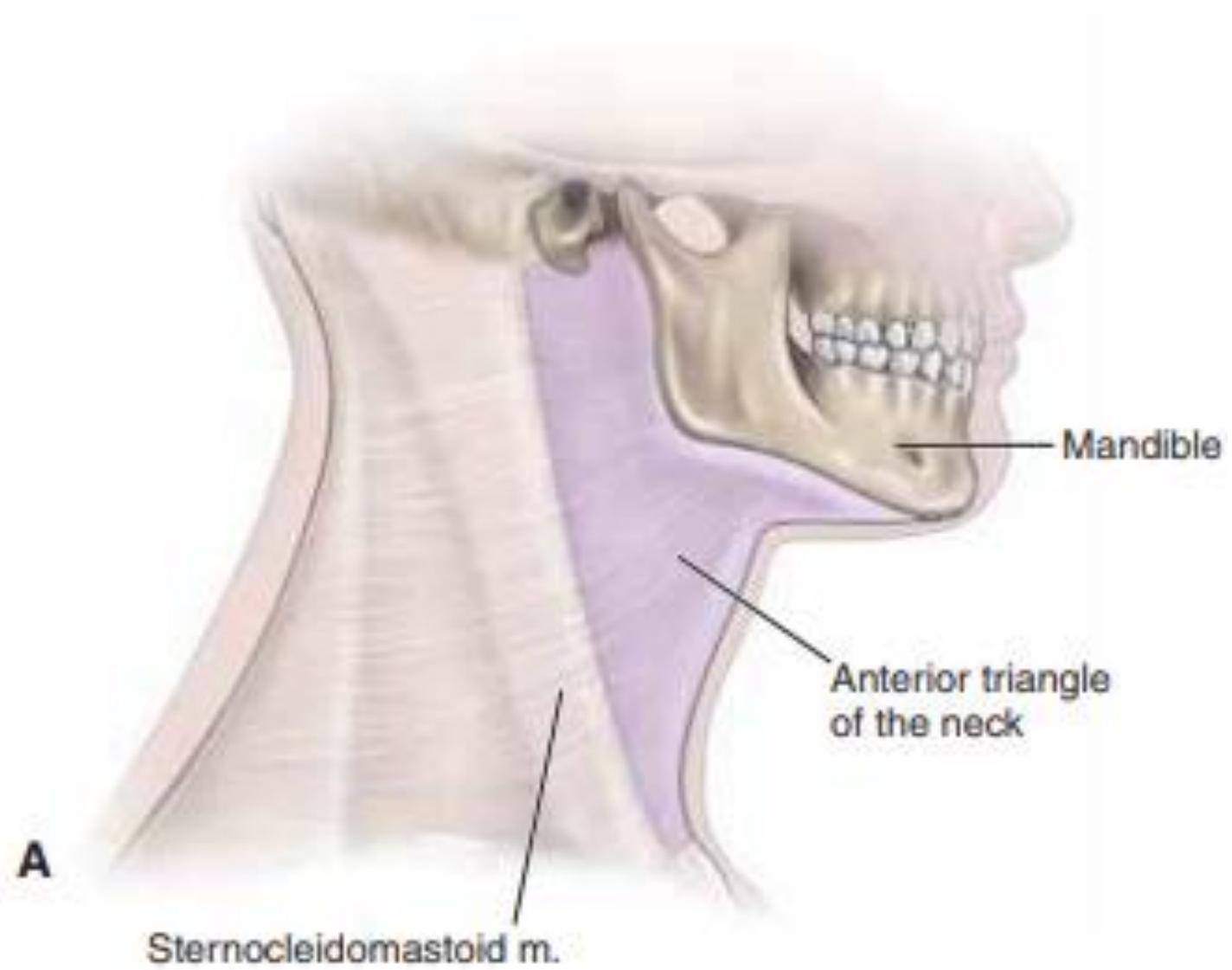
Superior Border

The superior border is the inferior border of the mandible.

Roof and Floor Structures

The roof includes skin, superficial fascia, and platysma muscle; the floor contains pharynx, larynx, and thyroid gland.

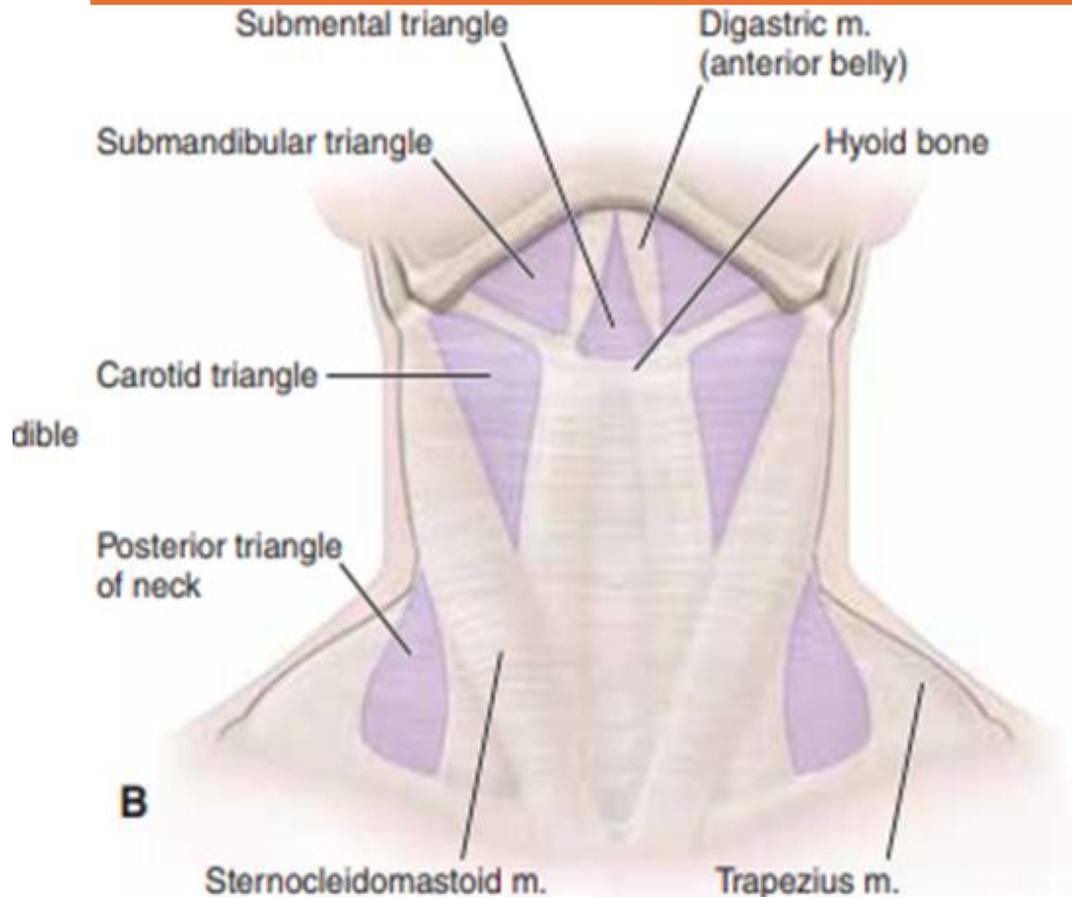




Structure and Subdivisions

Subdivisions of the Anterior Triangle

It is subdivided by three structures—the omohyoid muscle, the hyoid bone, and the digastric muscle



Submental Triangle

Unpaired, sits on the midline just inferior to the chin

Submandibular Triangle

Paired, Situated beneath the mandible, contains salivary glands.

Carotid Triangle

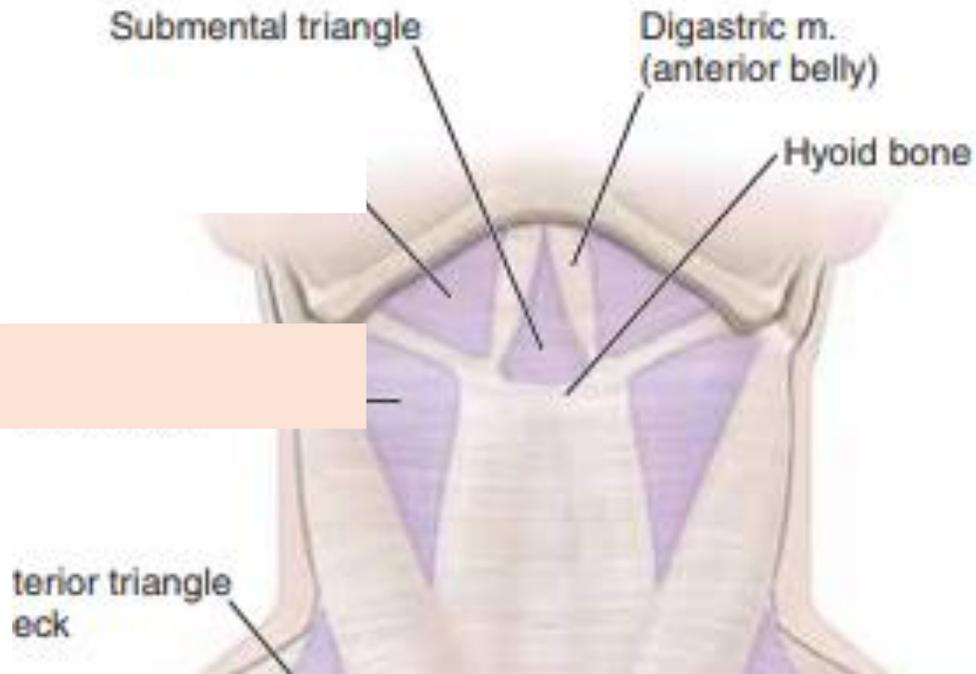
Paired, housing important vessels like the carotid artery.

Muscular Triangle

Paired, containing muscles and thyroid gland.

Detailed Anatomy of Subdivisions

submental triangle



The submental triangle is not a clinically significant space.

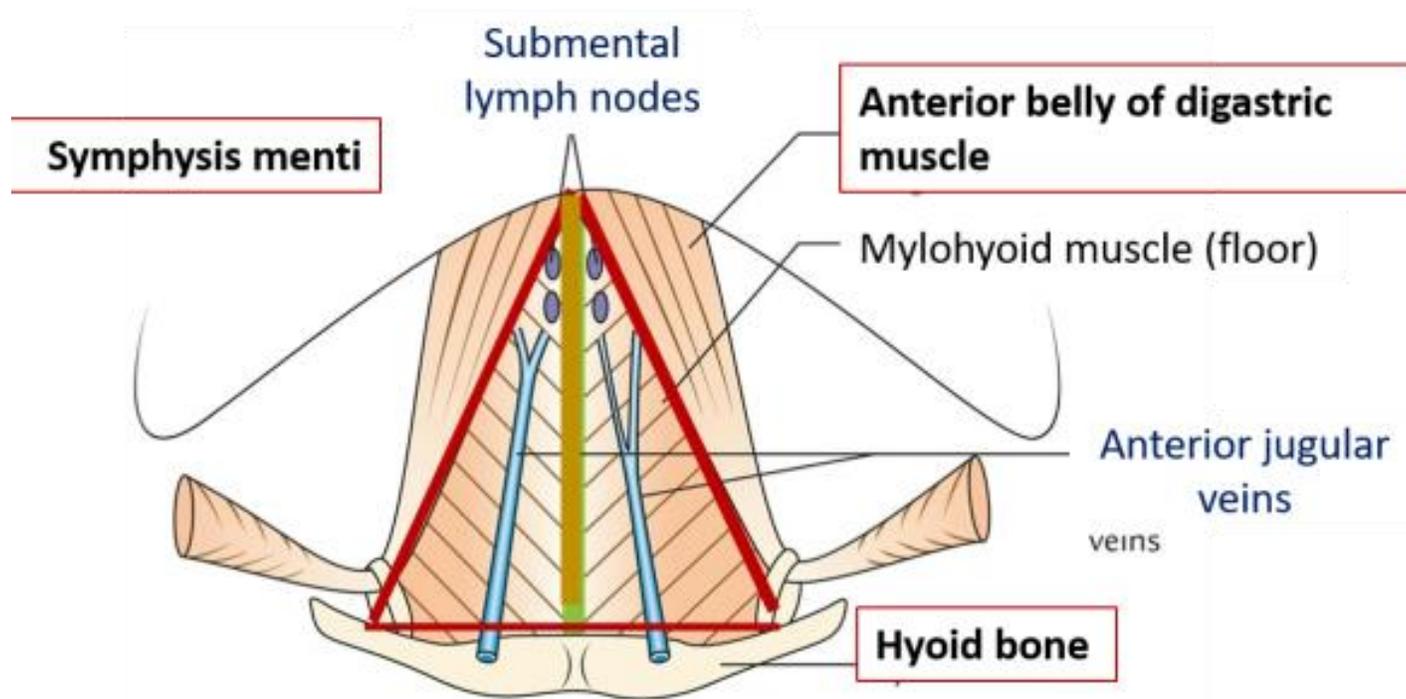
- ❖ also referred to as the suprahyoid triangle,
- ❖ is an unpaired suprahyoid area lying inferior to the chin.

BORDER

- ❖ inferiorly : the body of the hyoid bone,
- ❖ laterally : the right and left anterior bellies of the digastric muscles.
- ❖ Apex: is at the mandibular symphysis
- ❖ Base: The hyoid bone
- ❖ FLOOR: The two mylohyoid muscles, which meet in a median fibrous raphe.

Contents

- the submental triangle houses some important structures, such as:
 - ✓ the mylohyoid nerve
 - ✓ several small lymph nodes, called submental lymph nodes
 - ✓ some small veins which unite to form the anterior jugular vein.



Submandibular triangle/ digastric triangle

□ paired

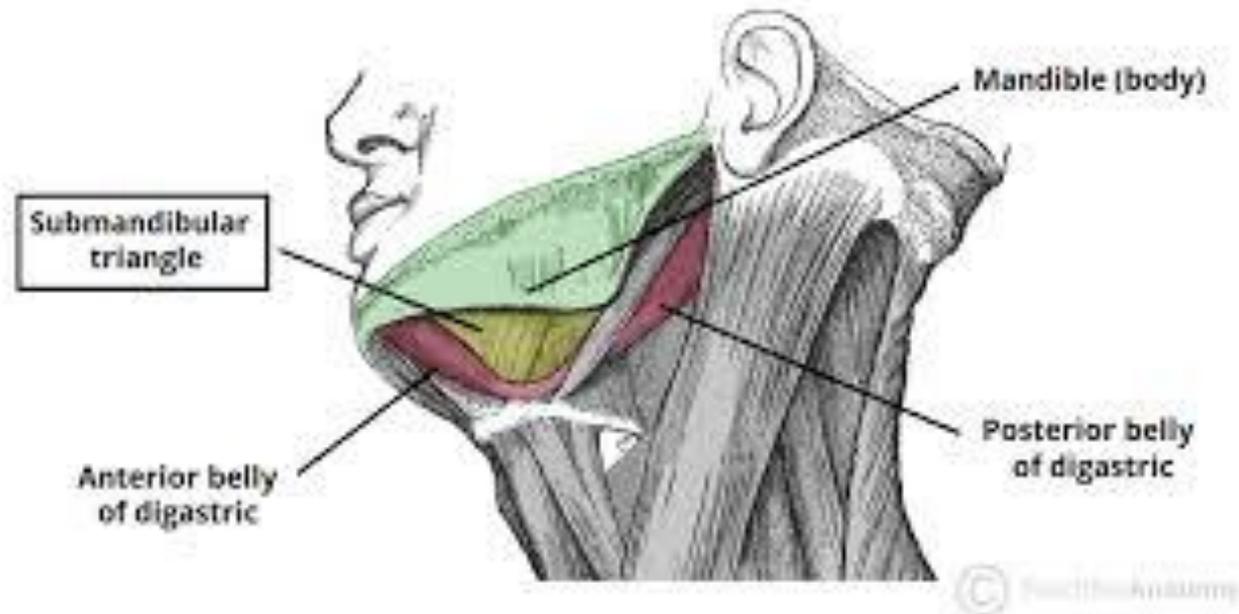
Superiorly - inferior border of mandible

Laterally - anterior belly of digastric muscle

Medially - posterior belly of digastric muscle

floor: mylohyoid, hyoglossus and middle pharyngeal constrictor

roof: skin, superficial fascia, platysma and deep fascia



Contents

- ✓ anterior part of the triangle contains
the submandibular gland
- ✓ posterior part of the triangle contains
the lower part of the parotid gland

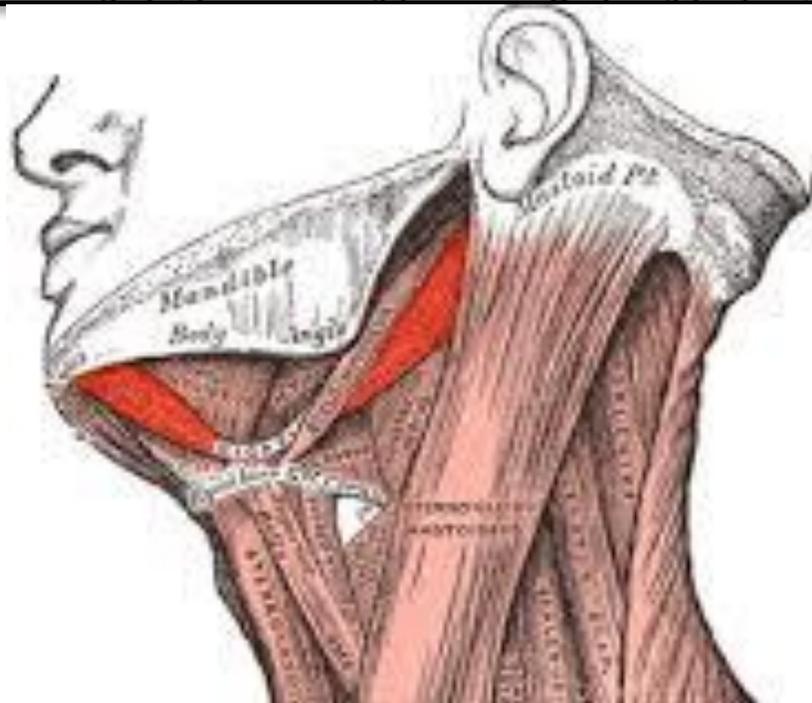
Vessels and lymphatics

1. facial artery
2. facial vein
3. external carotid artery
4. internal carotid artery
5. internal jugular vein
6. submental vessels
7. mylohyoid vessels
8. lymph nodes

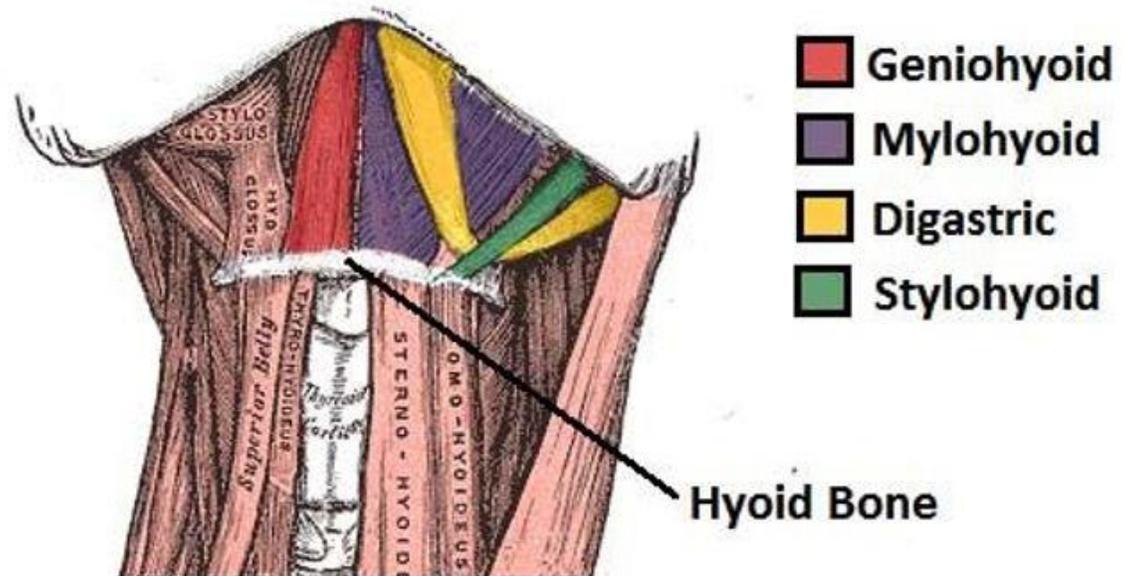
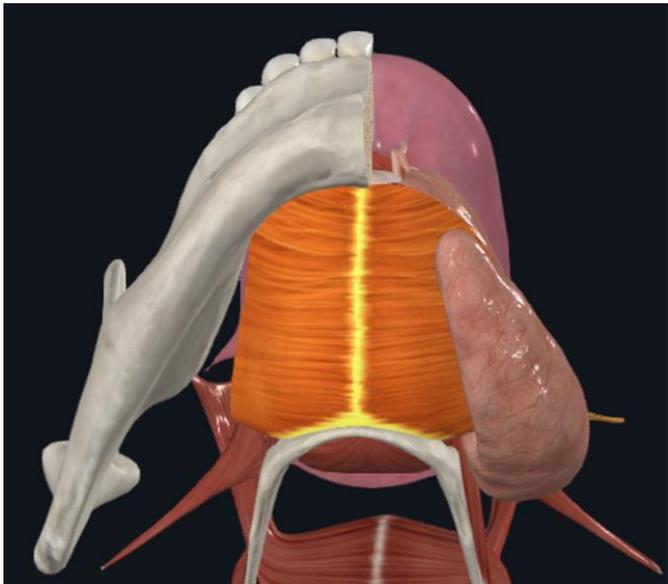
Nerves

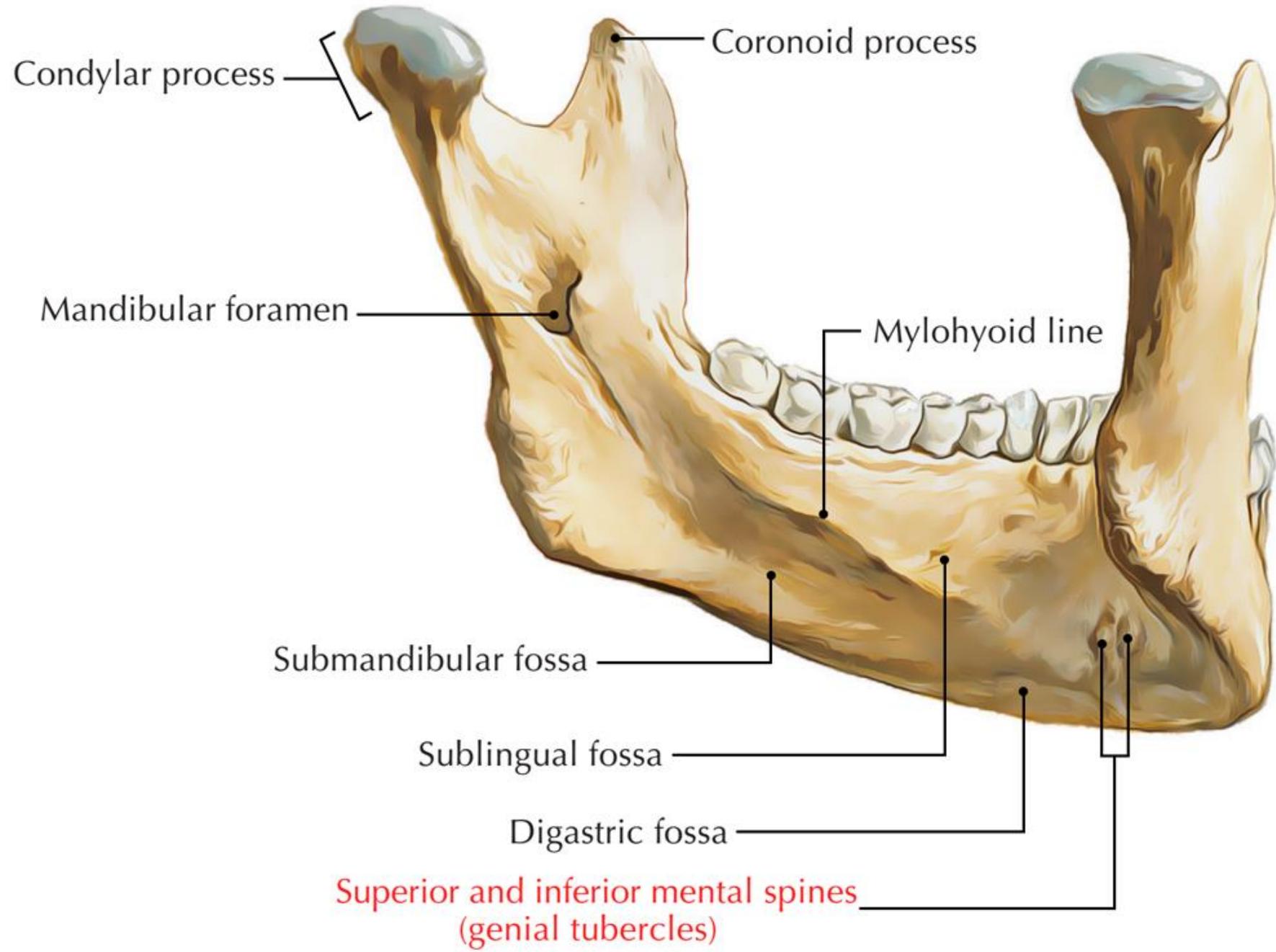
1. vagus nerve
2. hypoglossal nerve
3. mylohyoid nerve
4. glossopharyngeal nerve

Muscle	Origin	Insertion	Nerve Supply	Action
Suprahyoid Muscles				
Digastric				
Posterior belly	Mastoid process of the temporal bone	Intermediate tendon bound to hyoid bone	Facial nerve	Depresses the mandible or elevates the hyoid bone
Anterior belly	Lower border of the mandible near the midline	Intermediate tendon bound to hyoid bone	Mylohyoid nerve, mandibular division of the trigeminal nerve	Depresses the mandible or elevates the hyoid bone



Muscle	Origin	Insertion	Nerve Supply	Action
Suprahyoid Muscles				
Stylohyoid	Styloid process of the temporal bone	Body of the hyoid bone	Facial nerve	Elevates the hyoid bone
Mylohyoid	Mylohyoid line on the inner surface of the body of the mandible	Body of the hyoid bone and raphe that extends from the mandible to the hyoid bone	Mandibular division of the trigeminal nerve (inferior alveolar nerve)	Elevates the floor of the mouth and the hyoid bone or depresses the mandible
Geniohyoid	Inferior mental spine on the back of the symphysis menti of the mandible	Body of the hyoid bone	C1 through the hypoglossal nerve	Elevates the hyoid bone or depresses the mandible



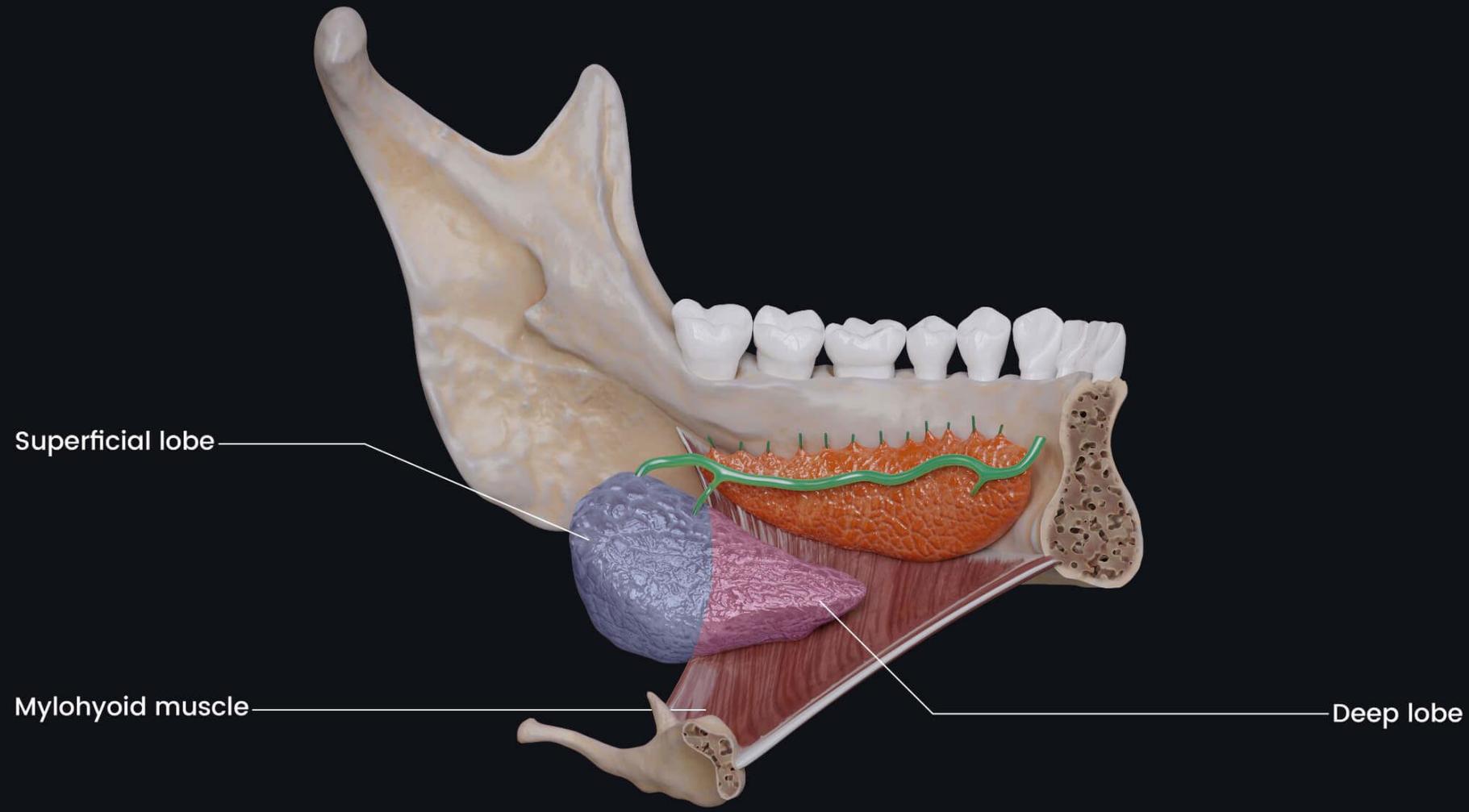




SUBMANDIBULAR GLAND

- The submandibular gland consists of a mixture of serous and mucous acini.
- It lies beneath the lower border of the body of the mandible
- It is divided into **superficial** and **deep** parts by the mylohyoid muscle.
- The deep part of the gland lies below the mucous membrane of the mouth on the side of the tongue.

Lobes of submandibular gland

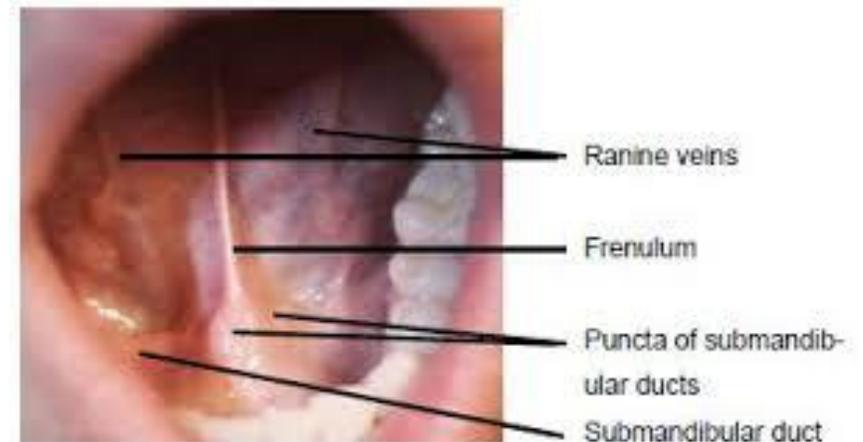
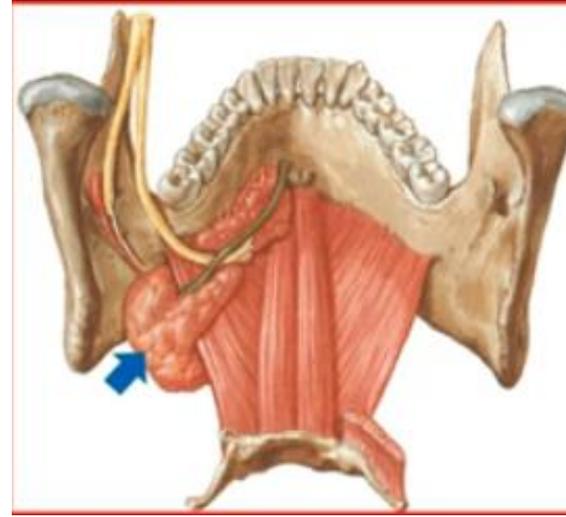


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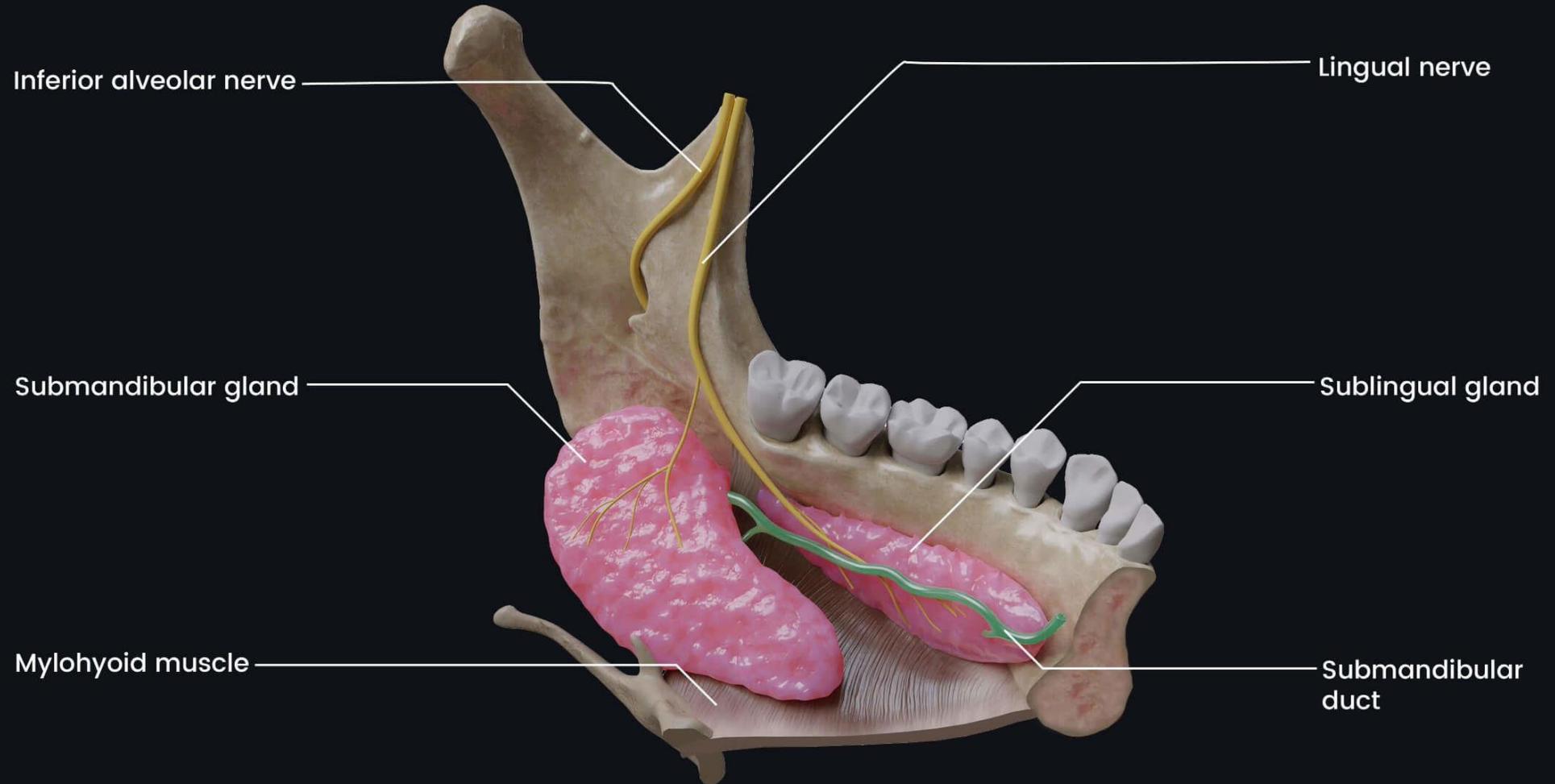


SUBMANDIBULAR GLAND DUCT

- ❑ The duct (Wharton's duct) leaves the **anterior end** of the **deep part** of the gland.
- ❑ The duct is crossed by the lingual nerve
- ❑ The duct opens into the mouth on a small papilla at the side of the frenulum of the tongue



Submandibular gland



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Nerve Supply

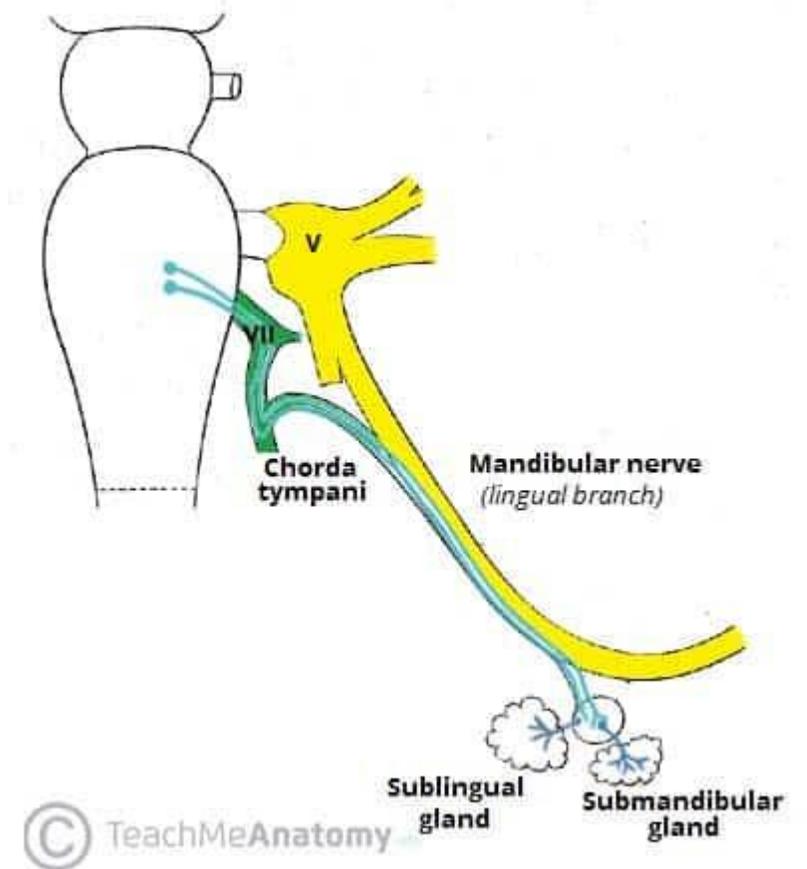
Parasympathetic secretomotor :

Preganglionic: is from the facial nerve via the chorda tympani.

Ganglion: the submandibular ganglion
postganglionic fibers pass to the gland.

Postganglionic sympathetic fibers run from the superior cervical sympathetic ganglion

Sensory: Lingual nerve

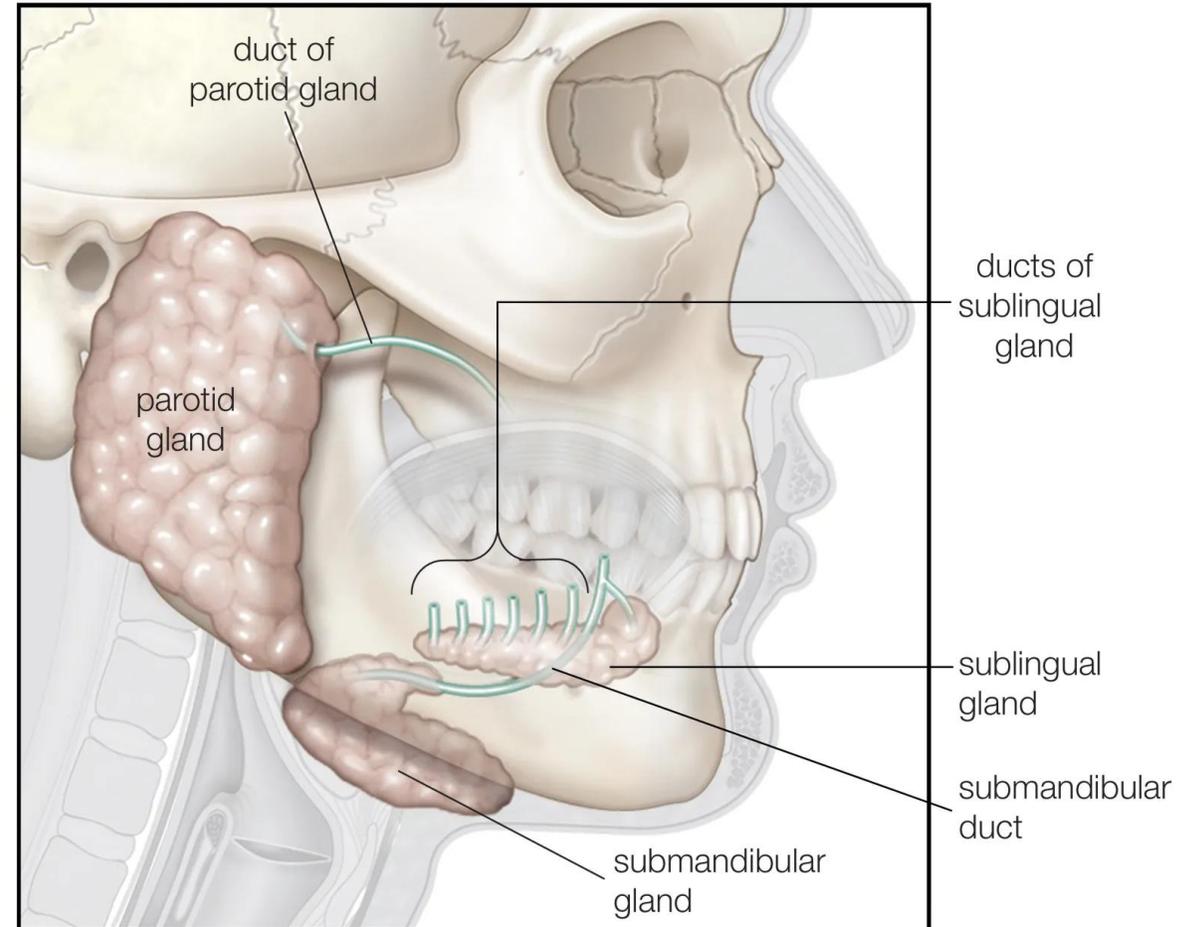


SUBLINGUAL GLAND

- ❖ The sublingual gland lies beneath the mucous membrane of the floor of the mouth (the sublingual fold).
- ❖ It has both serous and mucous acini (predominant).
- ❖ The sublingual glands are drained by multiple ducts
- ❖ known as the **ducts of Rivinus**, with the largest one sometimes called the **duct of Bartholin**

Nerve Supply

- ❖ The nerve supply is the same as that for the submandibular gland.



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