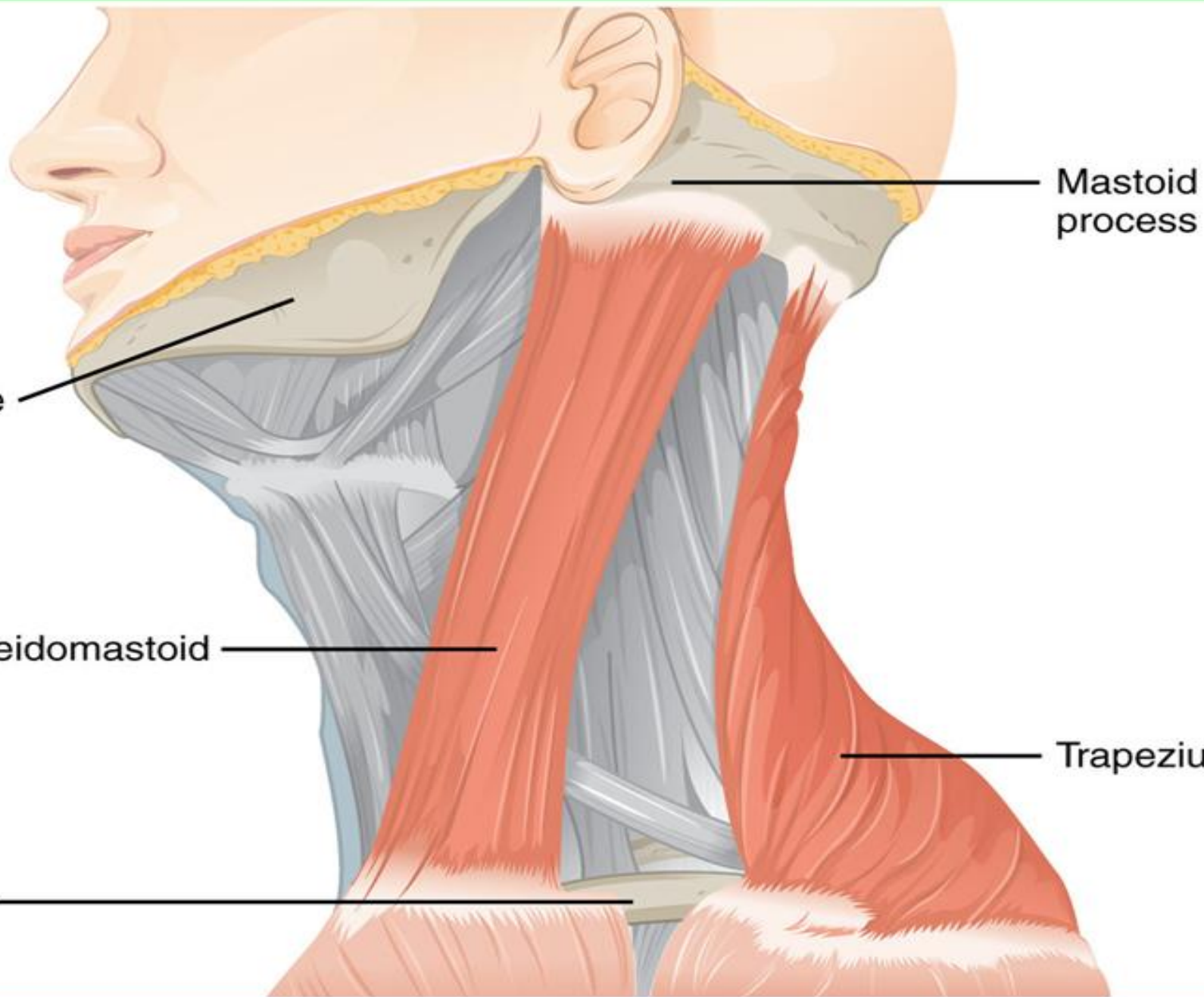


ANTERIOR TRIANGLE

BY DR.DALIA BIRAM.



Mastoid process

Mandible

Sternocleidomastoid

Trapezius

Clavicle

anterior triangle of neck

symphysis menti

body of hyoid

thyroid cartilage

cricoid cartilage

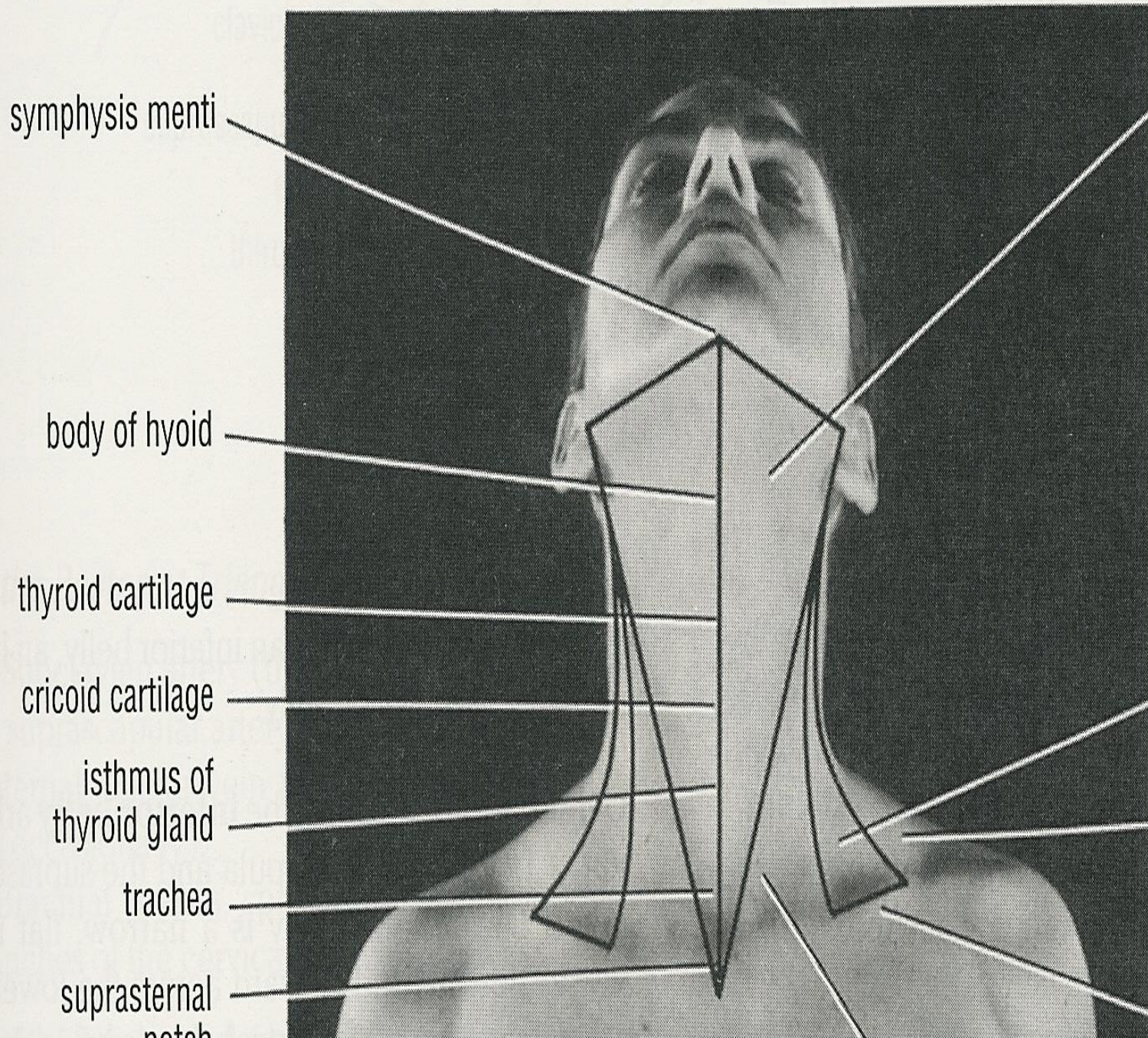
isthmus of thyroid gland

trachea

suprasternal notch

posterior triangle of neck

trapezius



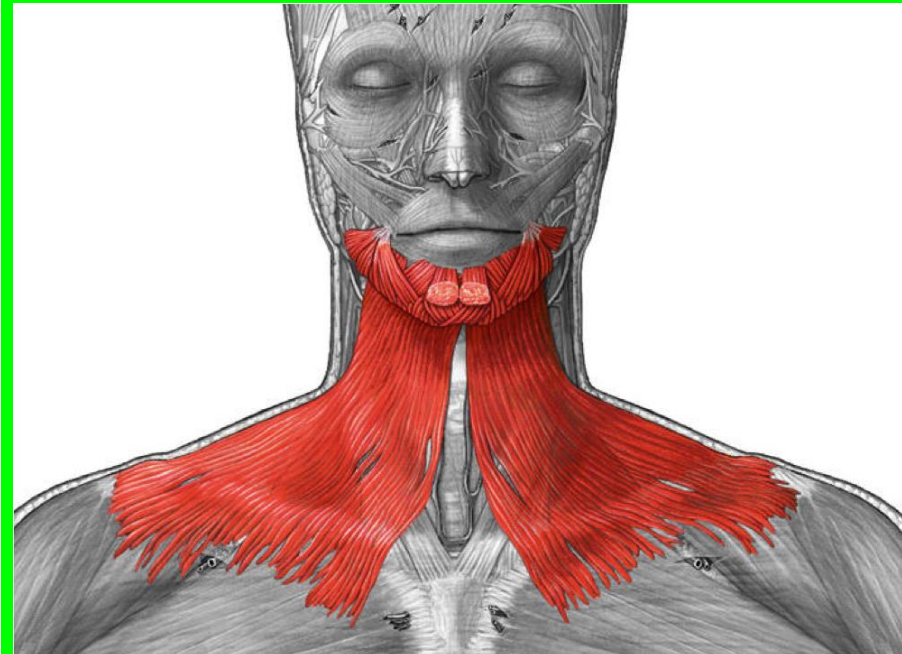
Muscle: Platysma

Origin: Deep fascia over pectoralis major and deltoid

Insertion: Body of mandible and angle of mouth

N. Supply: Facial nerve cervical branch

Action: Depresses mandible and angle of mouth



platysma

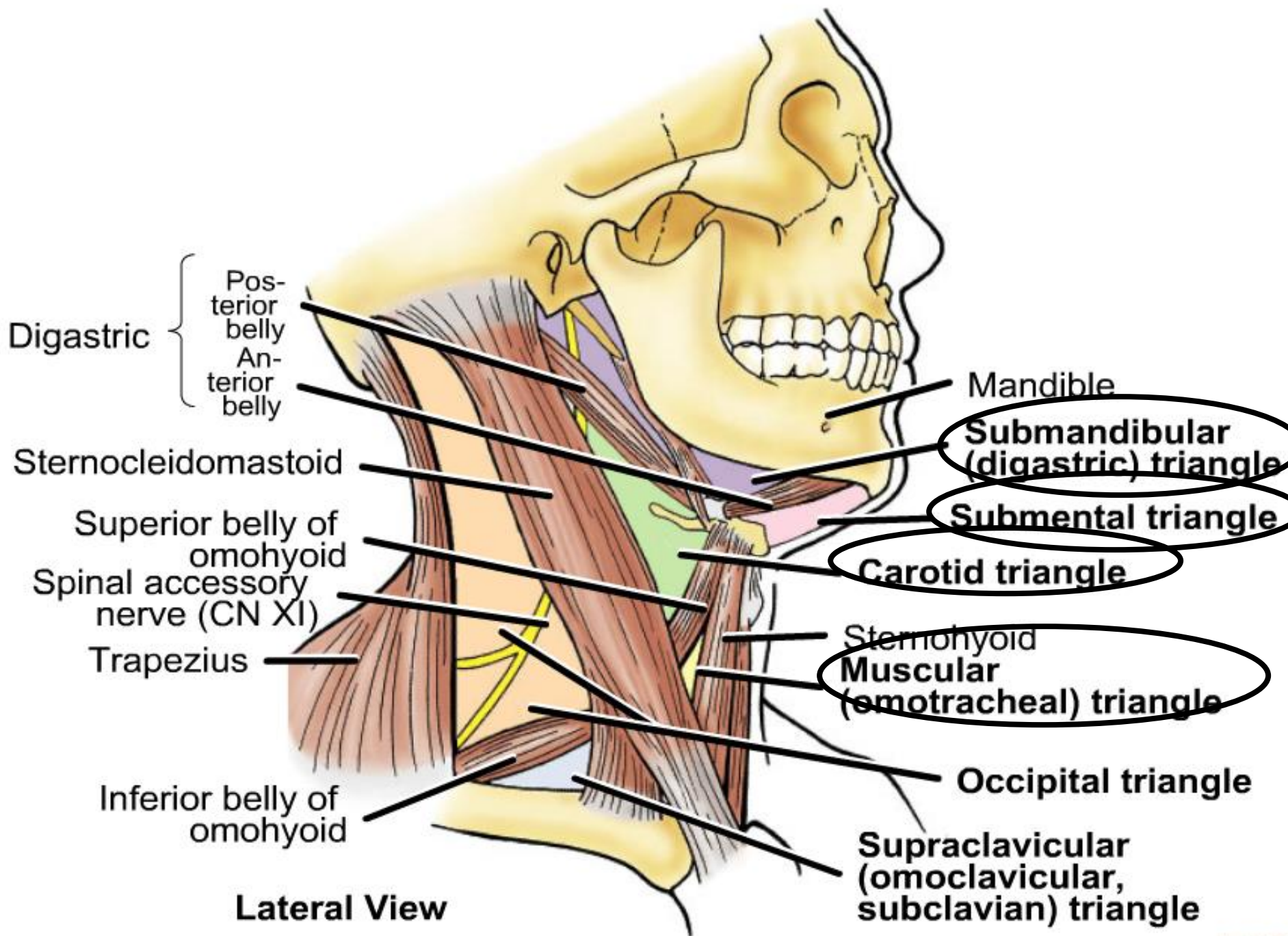
ANTERIOR TRIANGLE

Boundaries

- **Anteriorly:** Midline of the neck.
- **Posteriorly:** Anterior border of sternocleidomastoid muscle.
- **Superiorly:** Lower border of body of mandible.
- **Roof:** Skin, superficial fascia containing platysma, investing layer of deep fascia, cervical branch of facial nerve, transverse cervical nerve and anterior jugular veins.

■ **Division:** The anterior and posterior bellies of digastric and the superior belly of omohyoid muscles divide the triangle into:

1. Half of submental triangle.
2. Digastric triangle.
3. Carotid triangle.
4. Muscular triangle.



Digastric

Posterior belly
Anterior belly

Sternocleidomastoid

Superior belly of omohyoid

Spinal accessory nerve (CN XI)

Trapezius

Inferior belly of omohyoid

Lateral View

Mandible

Submandibular (digastric) triangle

Submental triangle

Carotid triangle

Sternohyoid Muscular (omotracheal) triangle

Occipital triangle

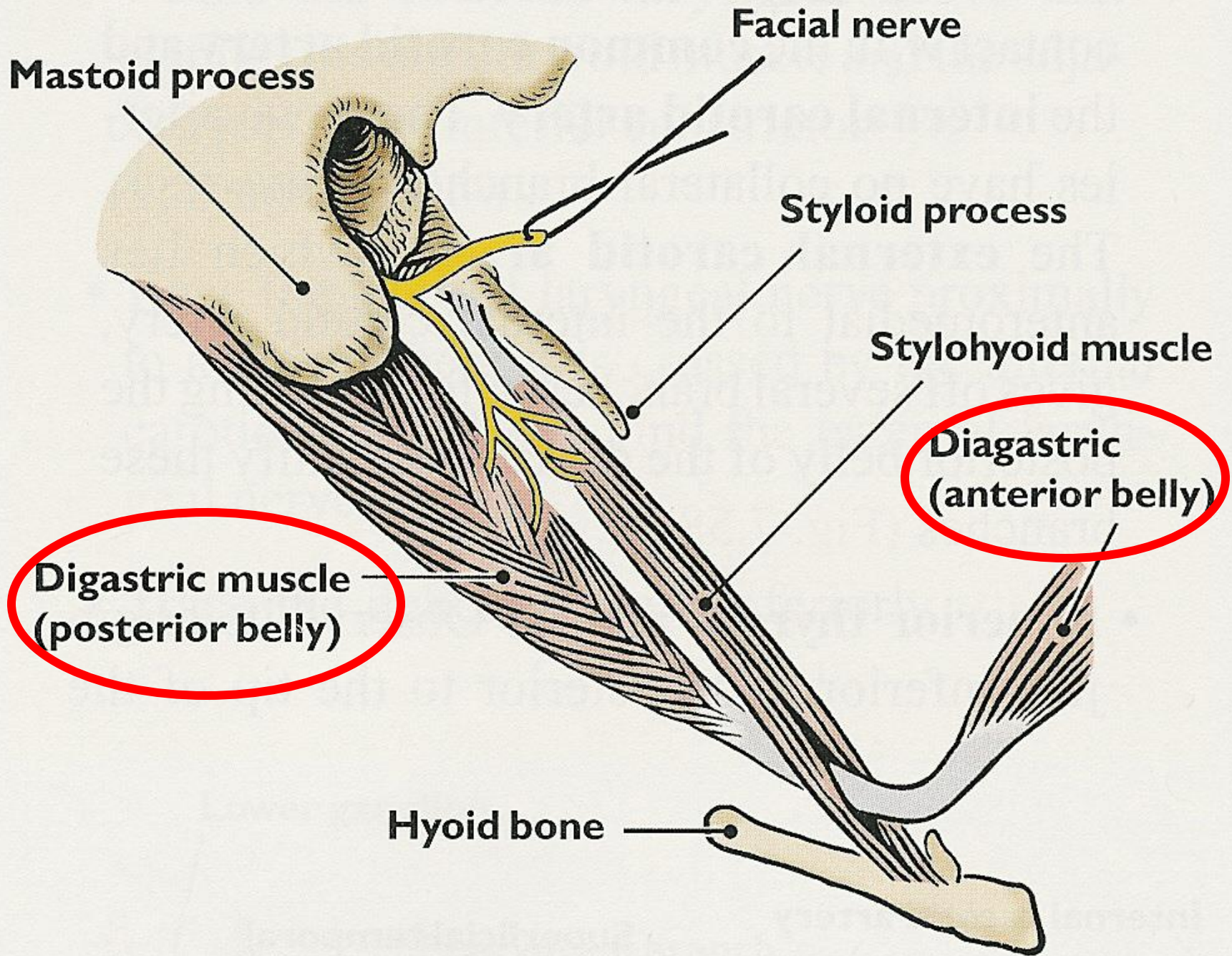
Supraclavicular (omoclavicular, subclavian) triangle

Digastric muscle

- **Origin:**
 1. Posterior belly from the medial surface of mastoid process (mastoid notch).
 2. Anterior belly from lower border of the body of the mandible (digastric fossa).
- **Insertion:** to the intermediate tendon which is held in position by fibrous loop to the hyoid bone, this tendon pierces the stylohyoid muscle.
- **Nerve supply:** posterior belly from facial nerve (with stylohyoid), anterior belly from nerve to mylohyoid from mandibular (with mylohyoid)
- **Action:** Depression of mandible and elevation of the hyoid bone.

Stylohyoid muscle

- **Origin:** Styloid process.
- **Insertion:** at junction between body and greater horn of hyoid bone, it is pierced by the intermediate tendon of digastric muscle.
- **Nerve supply:** Facial nerve.
- **Action:** Elevation of the hyoid bone.



Submental Triangle

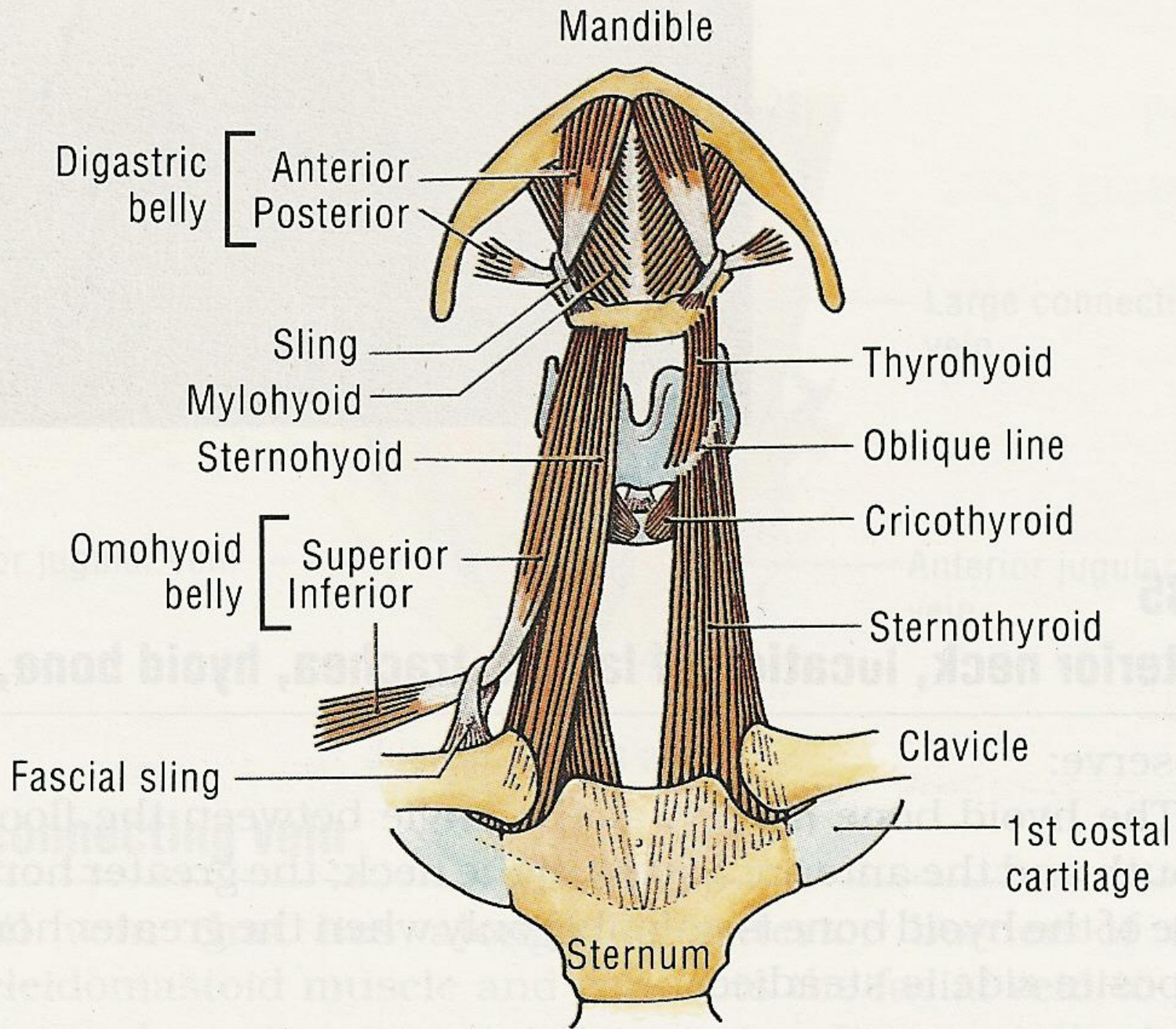
- **Boundaries:**

1. Laterally: 2 anterior belly of digastric.
2. Inferiorly: body of hyoid bone.

- **Floor:** mylohyoid muscle.

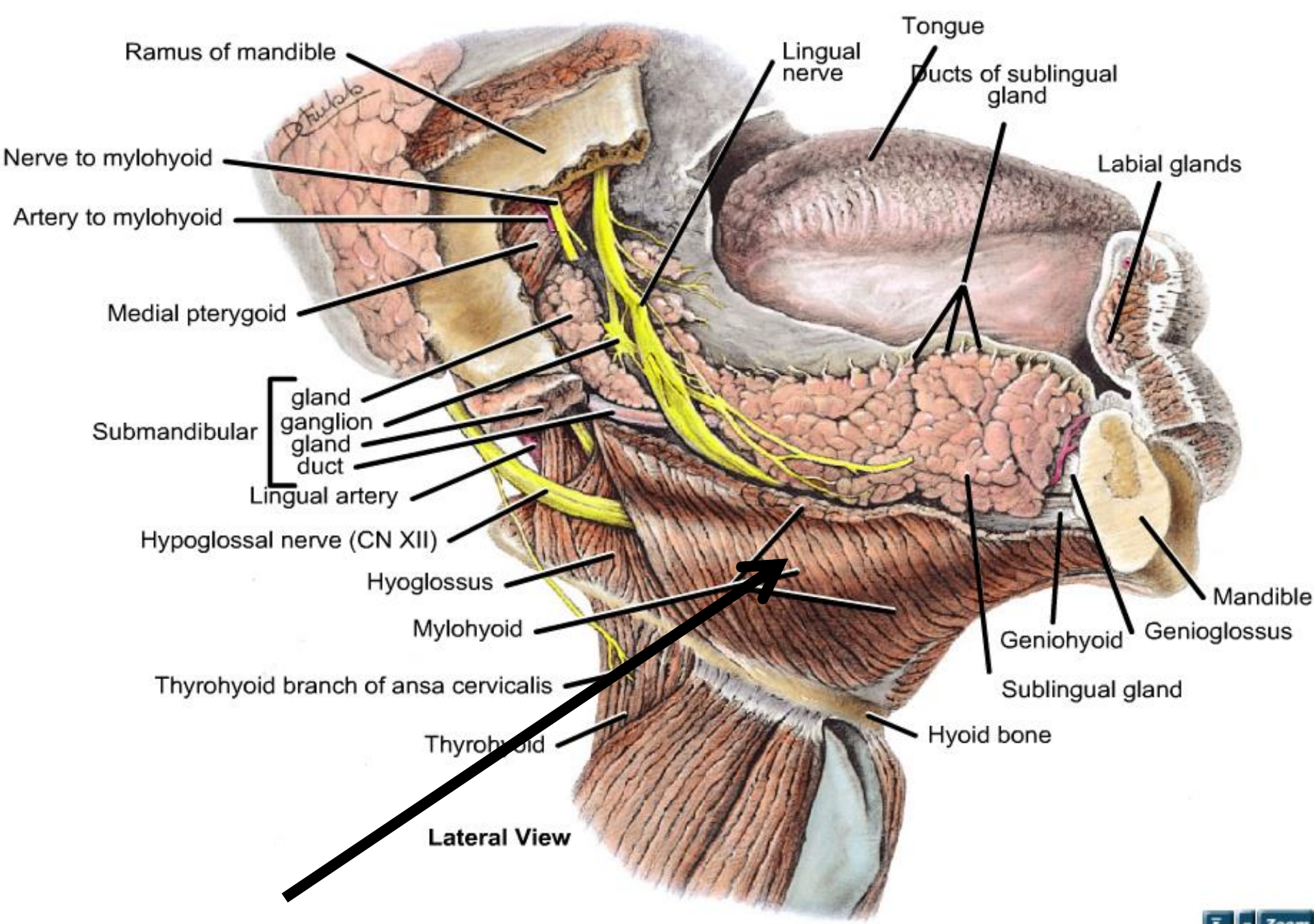
- **Contents:**

1. Submental lymph nodes.
2. Submental vessels. 3. nerve to mylohyoid.



Mylohyoid muscle

- **Origin:** Mylohyoid line of the inner surface of the mandible.
- **Insertion:** Upper surface of the body of the hyoid bone and in the mylohyoid raphe.
- **Nerve supply:** Nerve to mylohyoid from inferior alveolar nerve from posterior division of mandibular nerve.
- **Action:** the two muscles
 1. Support tongue and floor of the mouth.
 2. Elevate the floor of the mouth and hyoid bone in first stage of swallowing.
 3. Depress the mandible and open the mouth.



Digastric Triangle

- **Boundaries:**

1. Anteriorly: anterior belly of digastric.
2. Posteriorly: posterior belly of digastric and stylohyoid.
3. Superiorly: lower border of body of mandible.

- **Floor:** mylohyoid anteriorly and hyoglossus posteriorly.

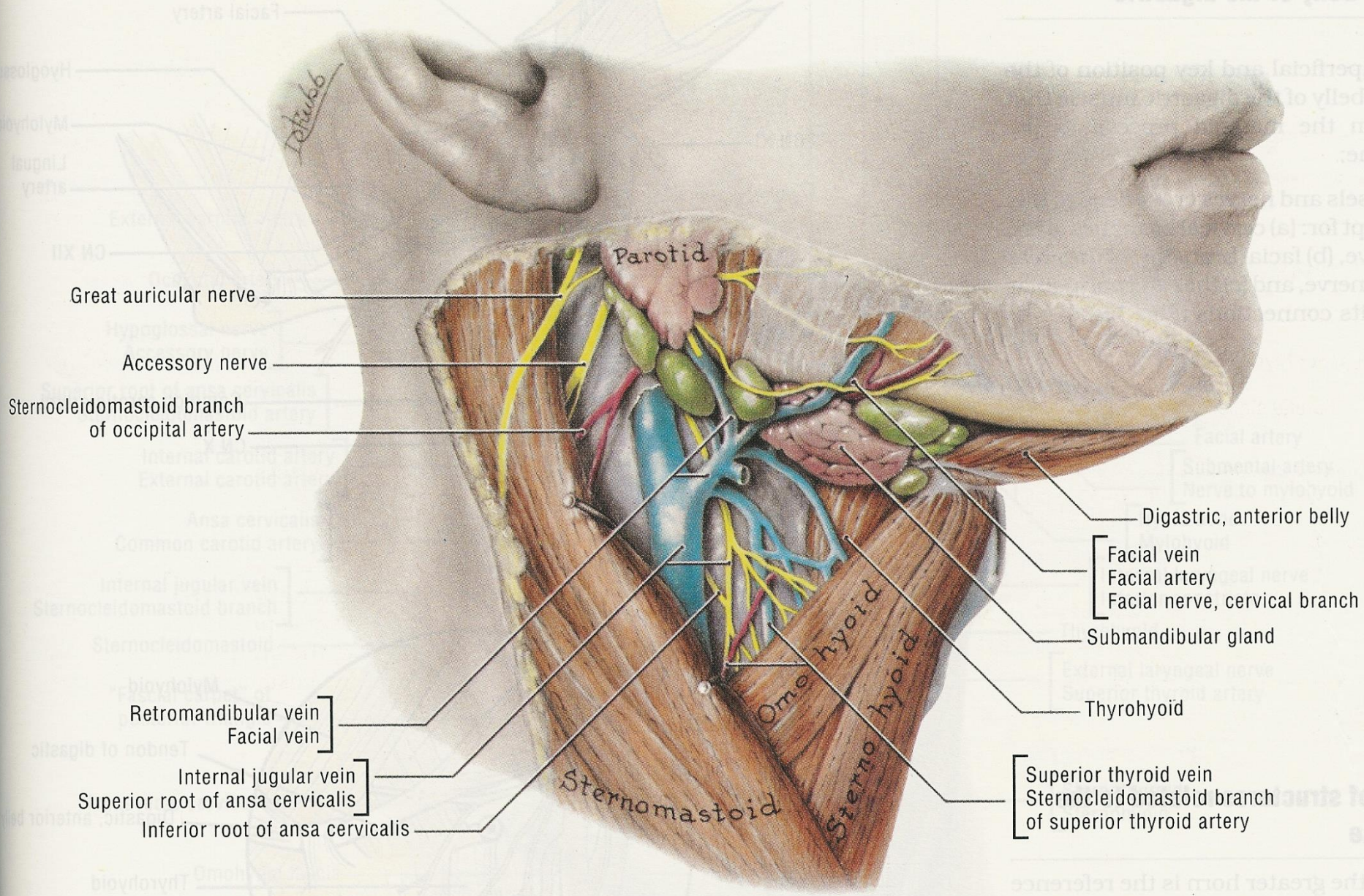
Digastric Triangle

Contents:

1. Submandibular salivary gland.
2. Submandibular lymph nodes.
3. Facial artery and vein.
4. Hypoglossal nerve.
5. Nerve and vessels to mylohyoid.

Hyoglossus muscle

- **Origin:** Upper border of the body and greater horn of the hyoid bone.
- **Insertion:** at the side of the tongue mixing with other lingual muscles.
- **Nerve supply:** Hypoglossal nerve.
- **Action:** Depression of the tongue.



D. Kubbe

Parotid

Omohyoid
Sternohyoid

Sternomastoid

Great auricular nerve

Accessory nerve

Sternocleidomastoid branch
of occipital artery

Digastric, anterior belly

Facial vein
Facial artery
Facial nerve, cervical branch

Submandibular gland

Thyroid

Retromandibular vein
Facial vein

Internal jugular vein
Superior root of ansa cervicalis

Inferior root of ansa cervicalis

Superior thyroid vein
Sternocleidomastoid branch
of superior thyroid artery

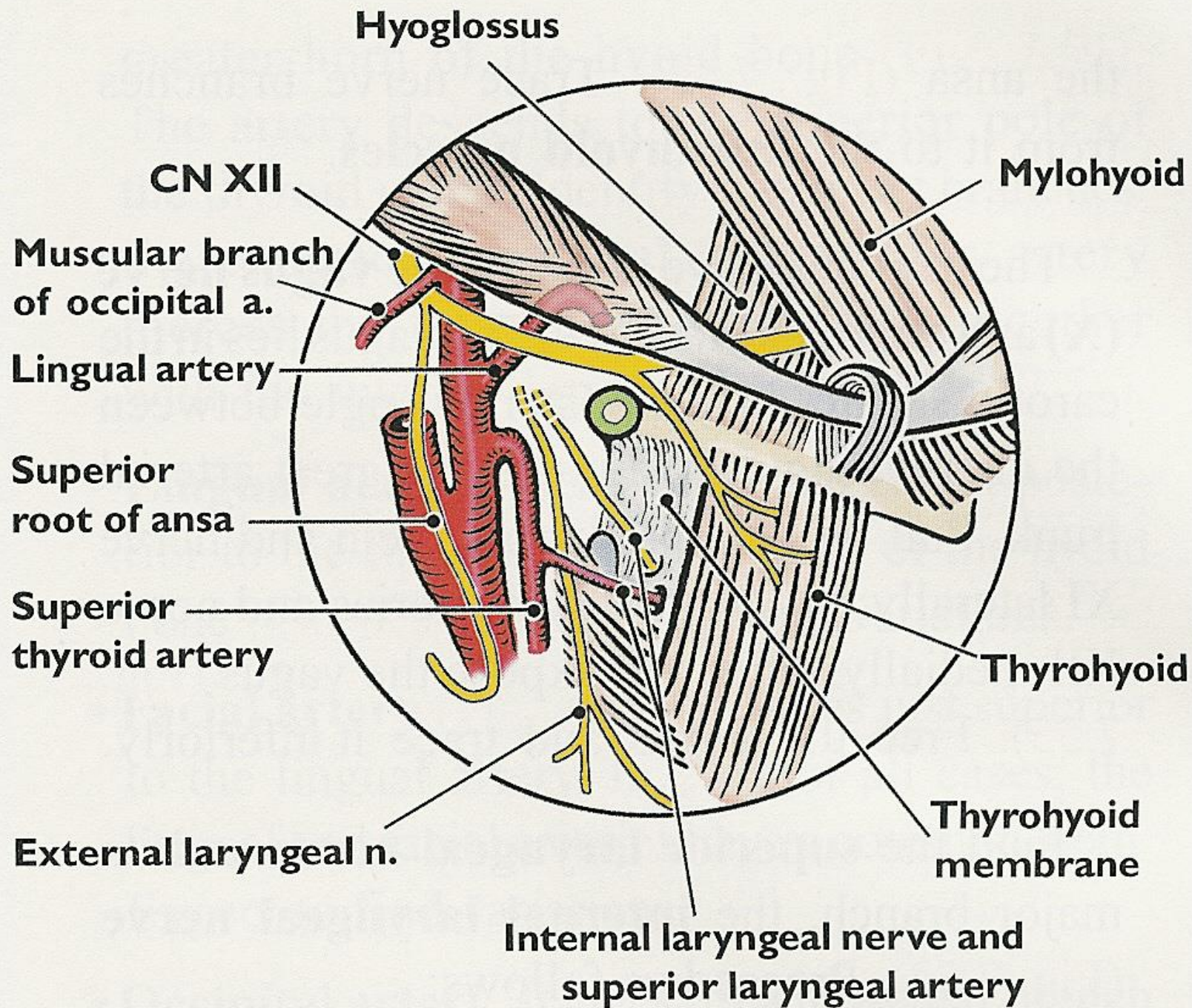
Carotid Triangle

■ Boundaries:

1. Superiorly: posterior belly of digastric.
2. Inferiorly: superior belly of omohyoid.
3. Posteriorly: anterior border of sternocleidomastoid.

■ Floor:

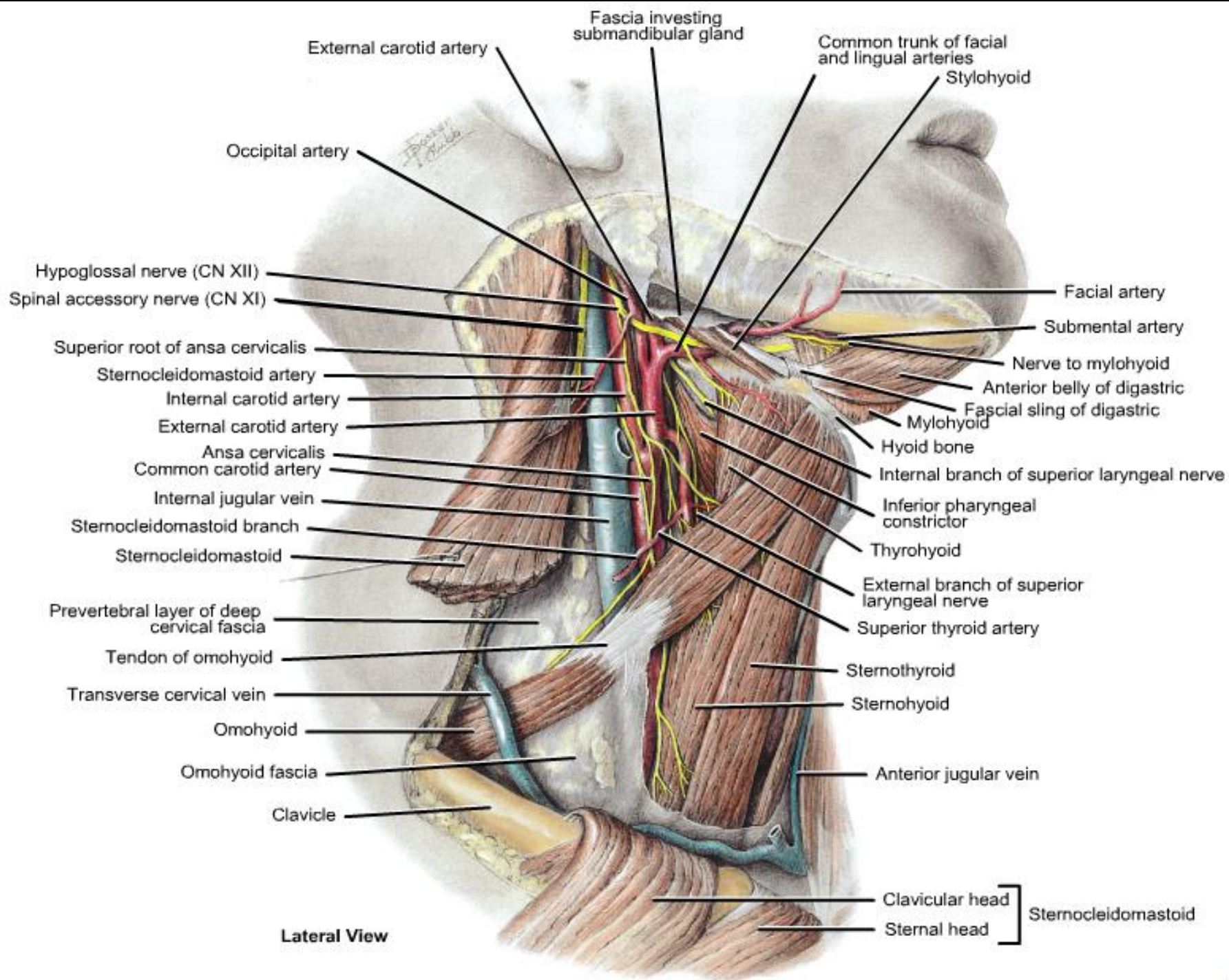
1. Thyrohyoid and hyoglossus anteriorly.
2. Middle and inferior constrictors of pharynx posteriorly.



Carotid Triangle

Contents:

1. Carotid sheath and its contents.
2. Common, internal and external carotid arteries.
3. Some branches of external carotid artery.
4. Internal jugular vein and some of its tributaries.
5. Nerves: Hypoglossal nerve and its descending branch, vagus nerve, internal and external laryngeal nerves, spinal accessory nerve, ansa cervicalis and sympathetic trunk.
6. Deep cervical lymph nodes.



Muscular Triangle

■ Boundaries:

1. Anteriorly: midline of the neck.
2. Superiorly: superior belly of omohyoid.
3. Inferiorly: anterior border of sternocleidomastoid.

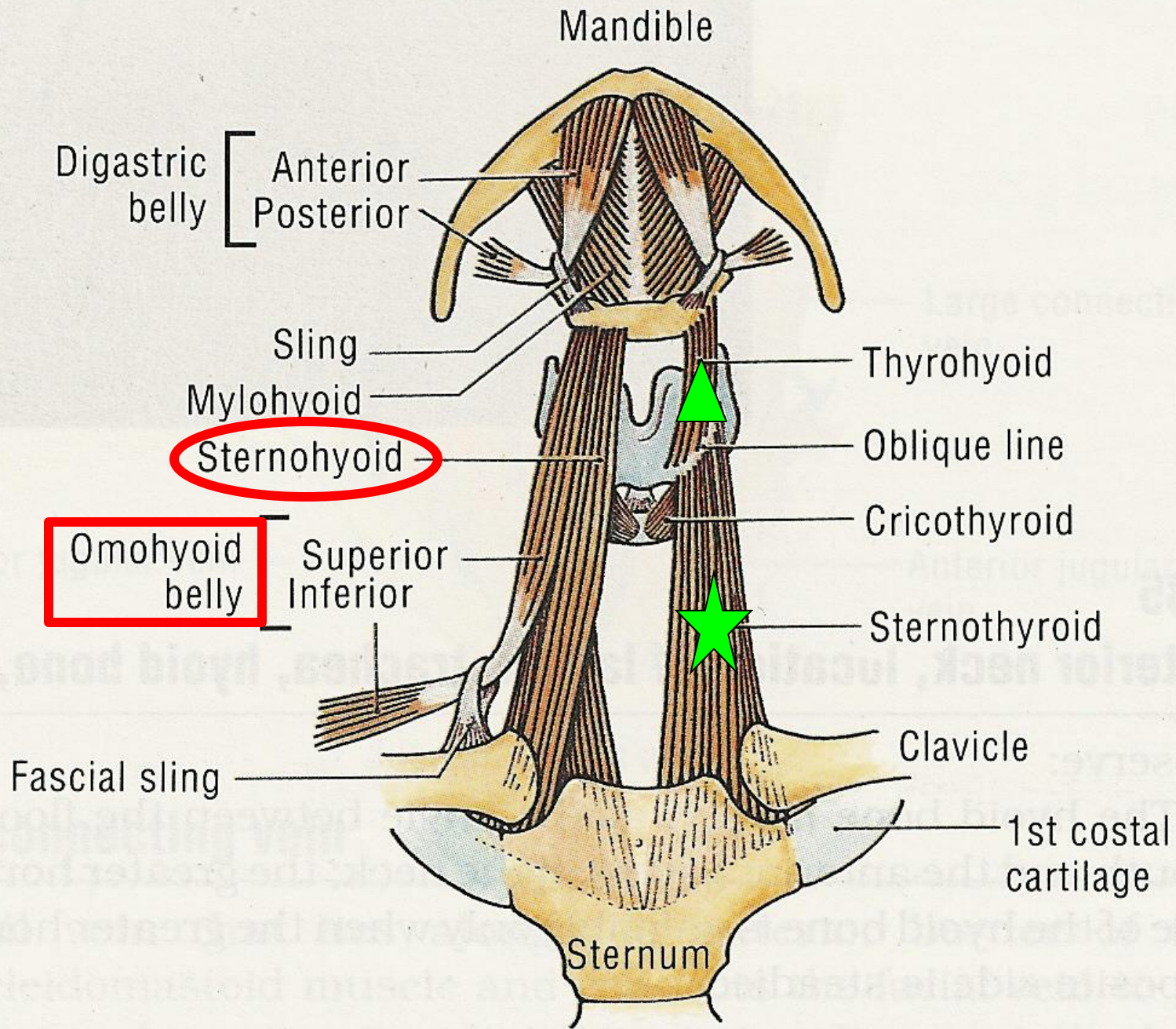
■ Floor:

1. Sternohyoid and sternothyroid muscles.
2. Deep to them; thyroid gland, larynx, trachea.

Muscular Triangle

Contents:

- Infrahyoid muscles which are:
 1. Sternohyoid muscle.
 2. Omohyoid muscle.
 3. Sternothyroid muscle.
 4. Thyrohyoid muscle.



Sternohyoid muscle

- **Origin:** Posterior surface of upper part of manubrium sterni and back of medial part of the clavicle.
- **Insertion:** lower border of the body of hyoid bone.
- **Nerve supply:** Ansa cervicalis.
- **Action:** Depression of the hyoid bone.

Muscle: **Omohyoid**

Inferior belly

Origin: Upper margin of scapula and suprascapular ligament

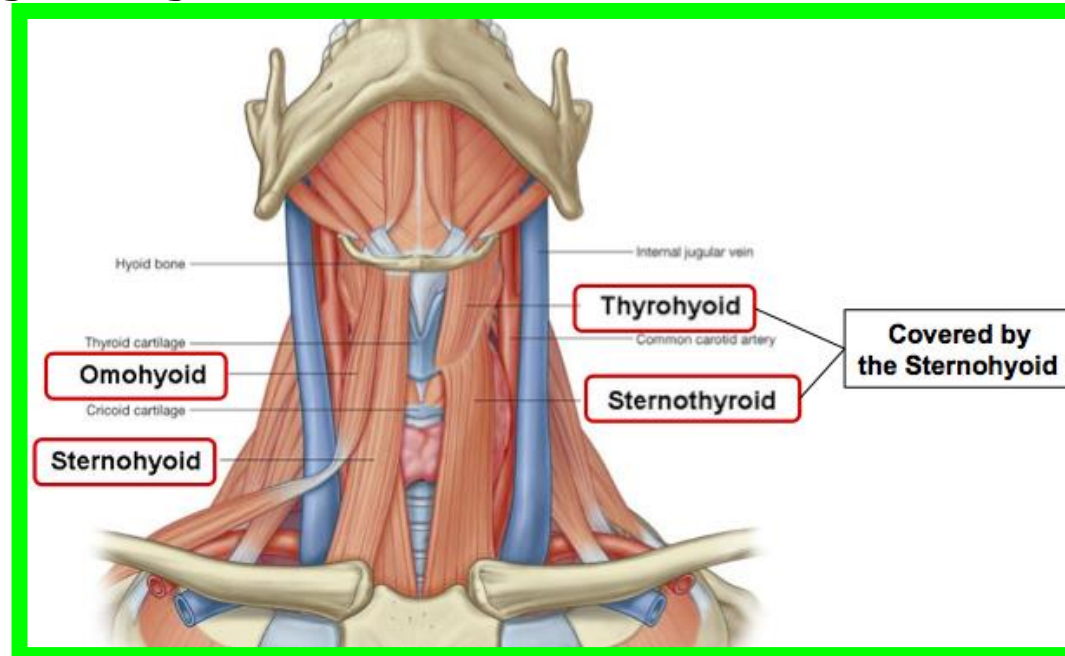
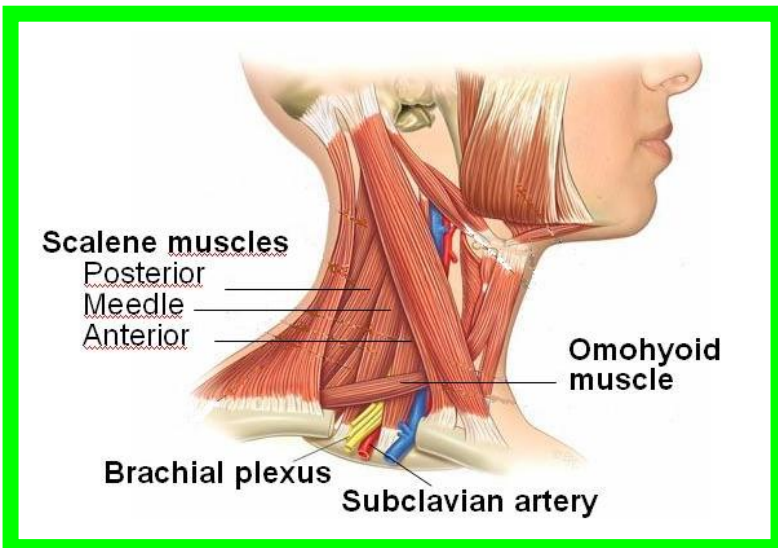
Insertion: Intermediate tendon is held to clavicle and first rib by fascial sling
by fascial sling

N. Supply: Ansa cervicalis; C1, 2, and 3

Action: Depresses hyoid bone

Superior belly

Origin: Lower border of body of hyoid bone



Muscle: Sternothyroid

Origin: Manubrium sterni

Insertion: Oblique line on lamina of thyroid cartilage

N. Supply: Ansa cervicalis; C1, 2, and 3

Action: Depresses larynx

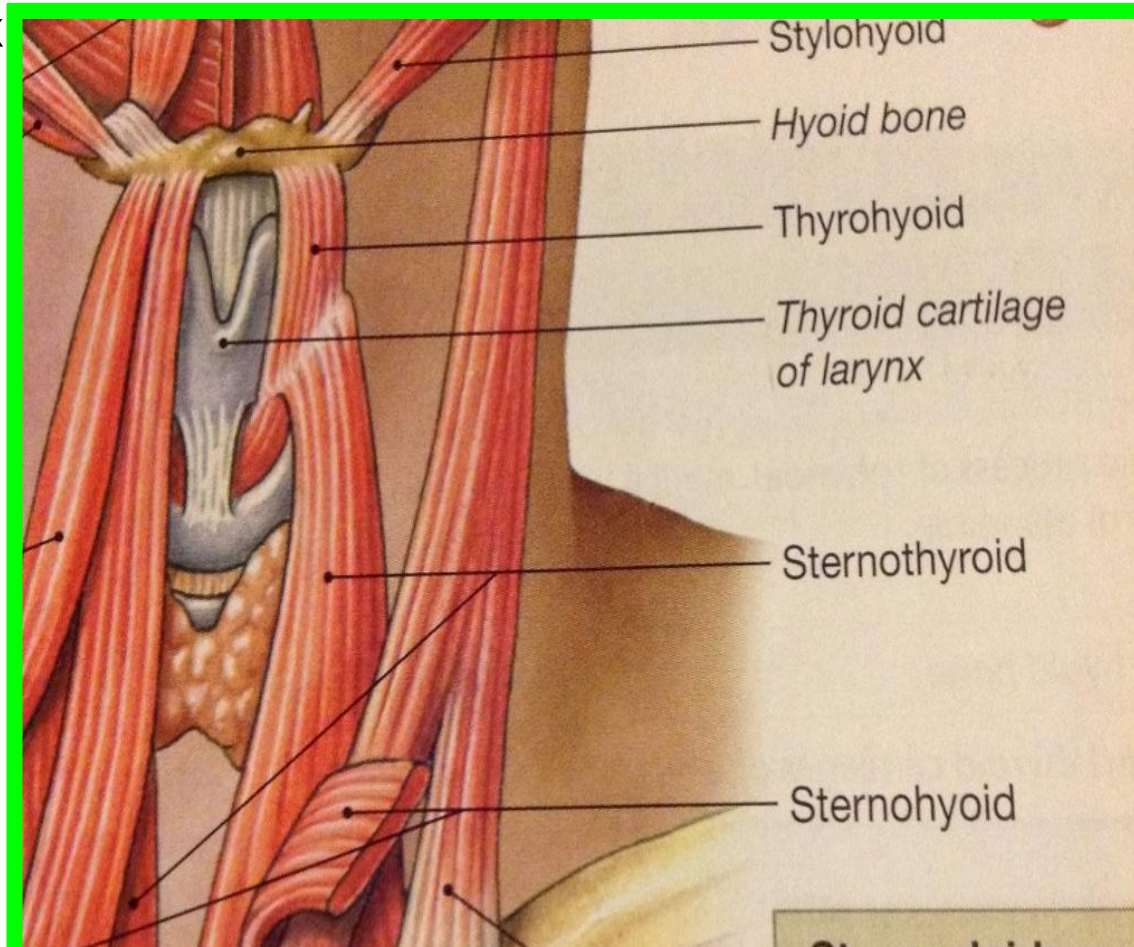
Muscle: Thyrohyoid

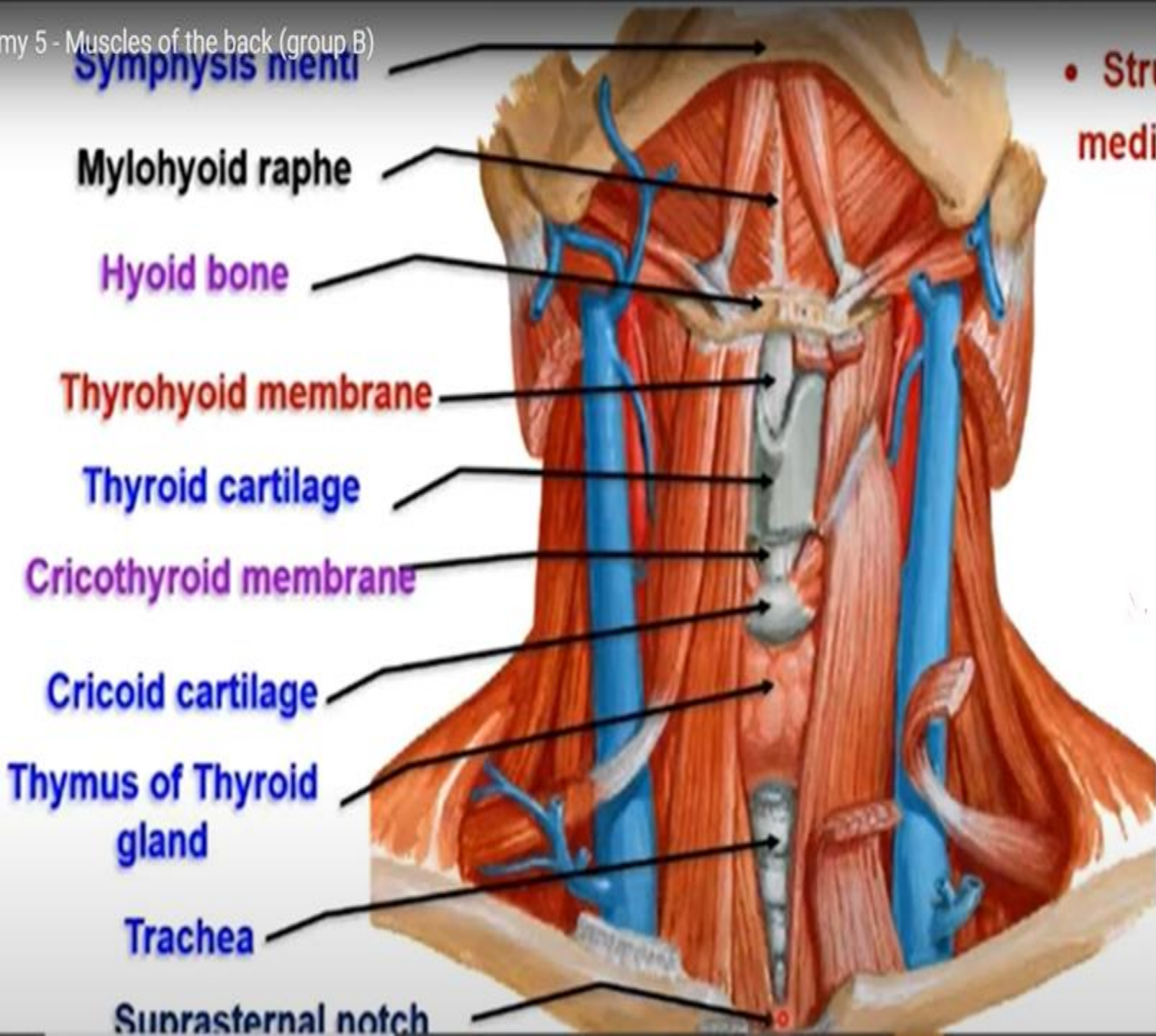
Origin: Oblique line on lamina of thyroid cartilage

Insertion: Lower border of body of hyoid bone

N. Supply: 1st cervical nerve

Action: Depresses hyoid bone or elevates larynx





THANK YOU