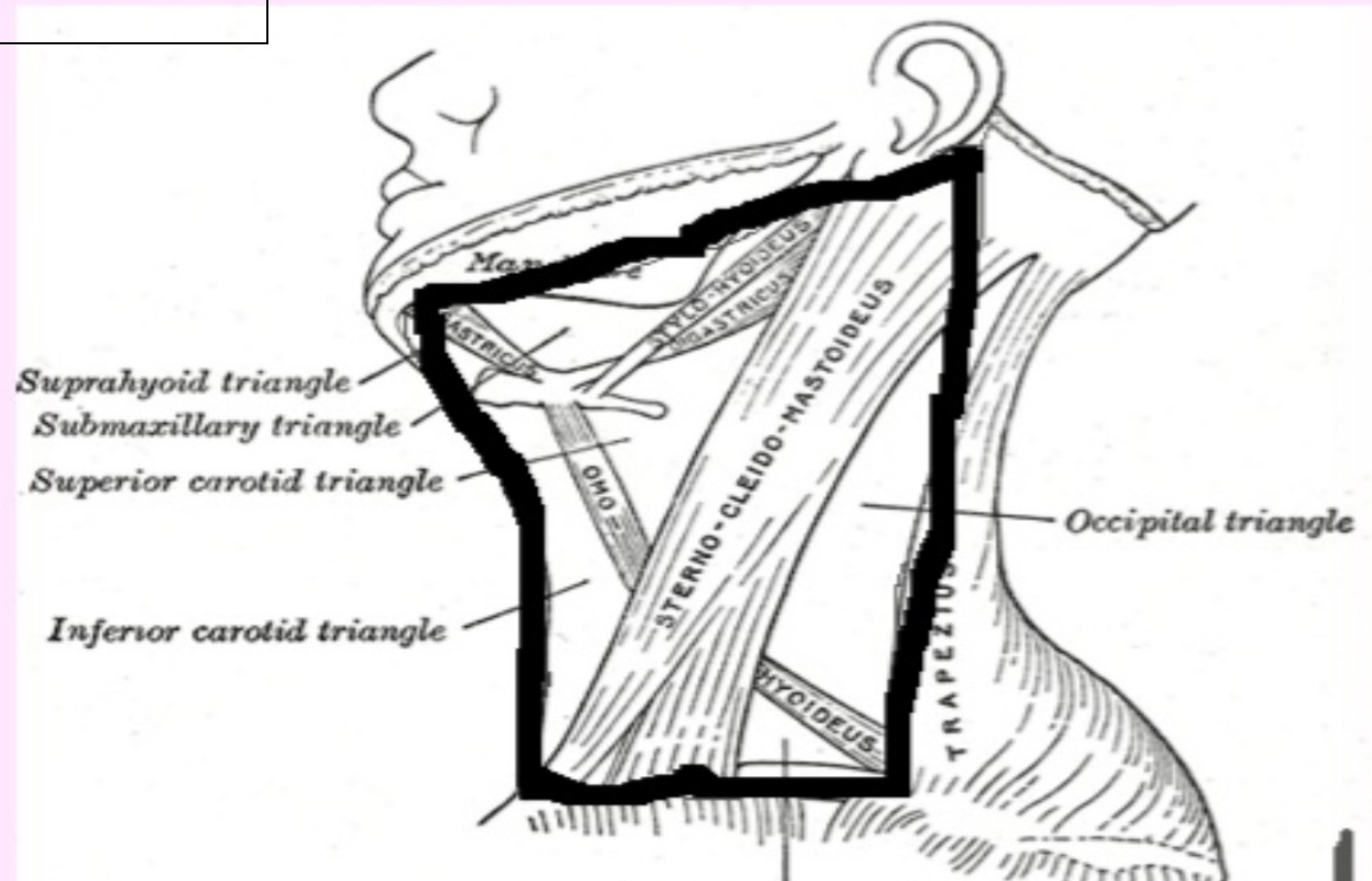


Neck Anatomy

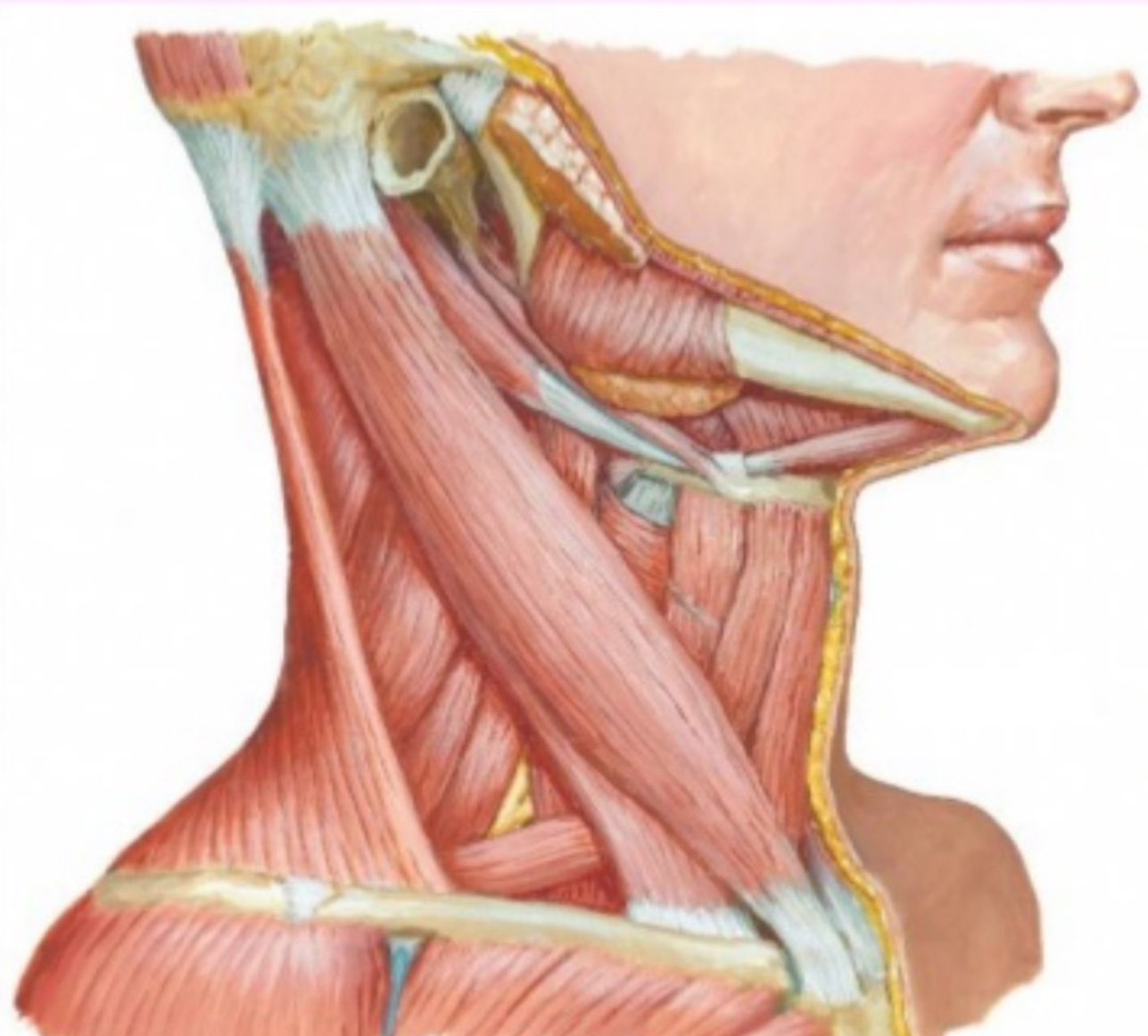
Neck Triangles

- The side of the neck presents a somewhat quadrilateral outline .
- It is limited above by the lower border of the body of the mandible ,and an imaginary line drawn from the angle of the mandible to the mastoid process.
- Below, it is limited by the upper border of the clavicle.
- Medially, by the midline of the neck.
- Posteriorly, by the anterior border of the Trapezius muscle .

Quadrilateral outline in the neck

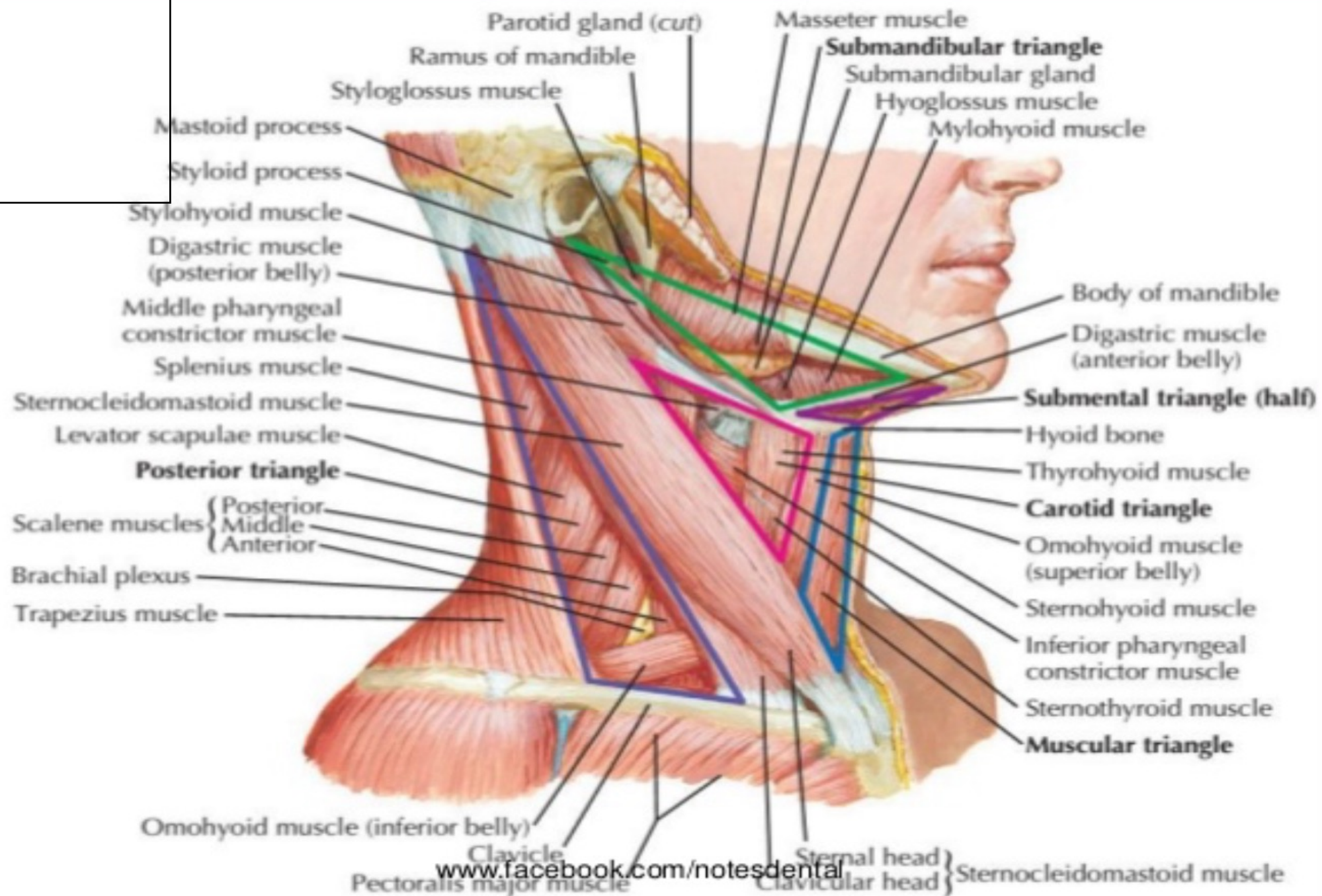


Sternocleidomastoid Muscle



Sternocleidomastoid Muscles

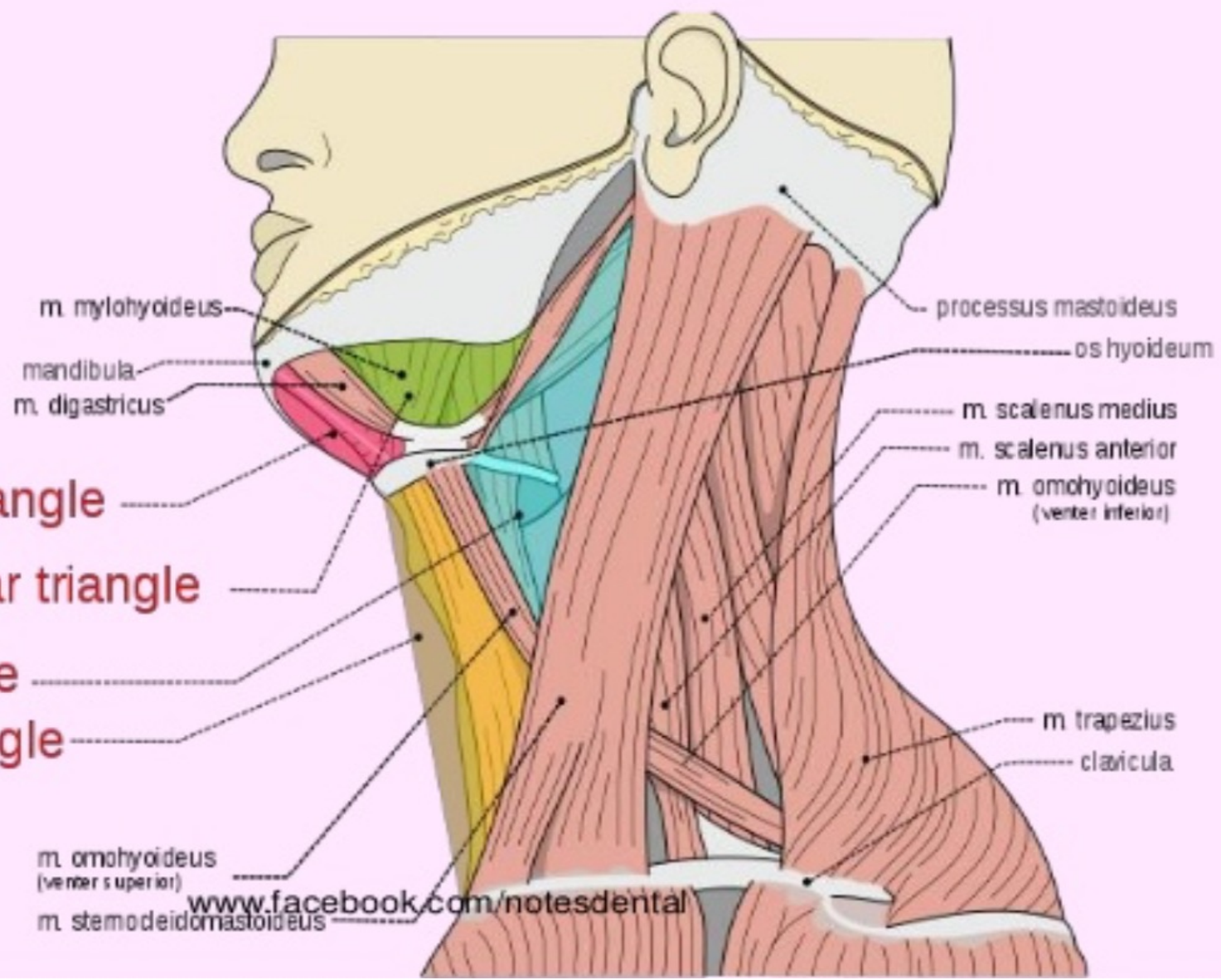
- This quadrilateral space is divided by the **Sternocleidomastoid** muscle into two main triangles .
- It passes obliquely upwards and backwards from its site of origin at the **clavicle** and **sternum** to its point of insertion on the **mastoid process** and the **occipital bone** .
- The triangle in front of this muscle is the **anterior triangle** and the one behind it is the **posterior triangle** .



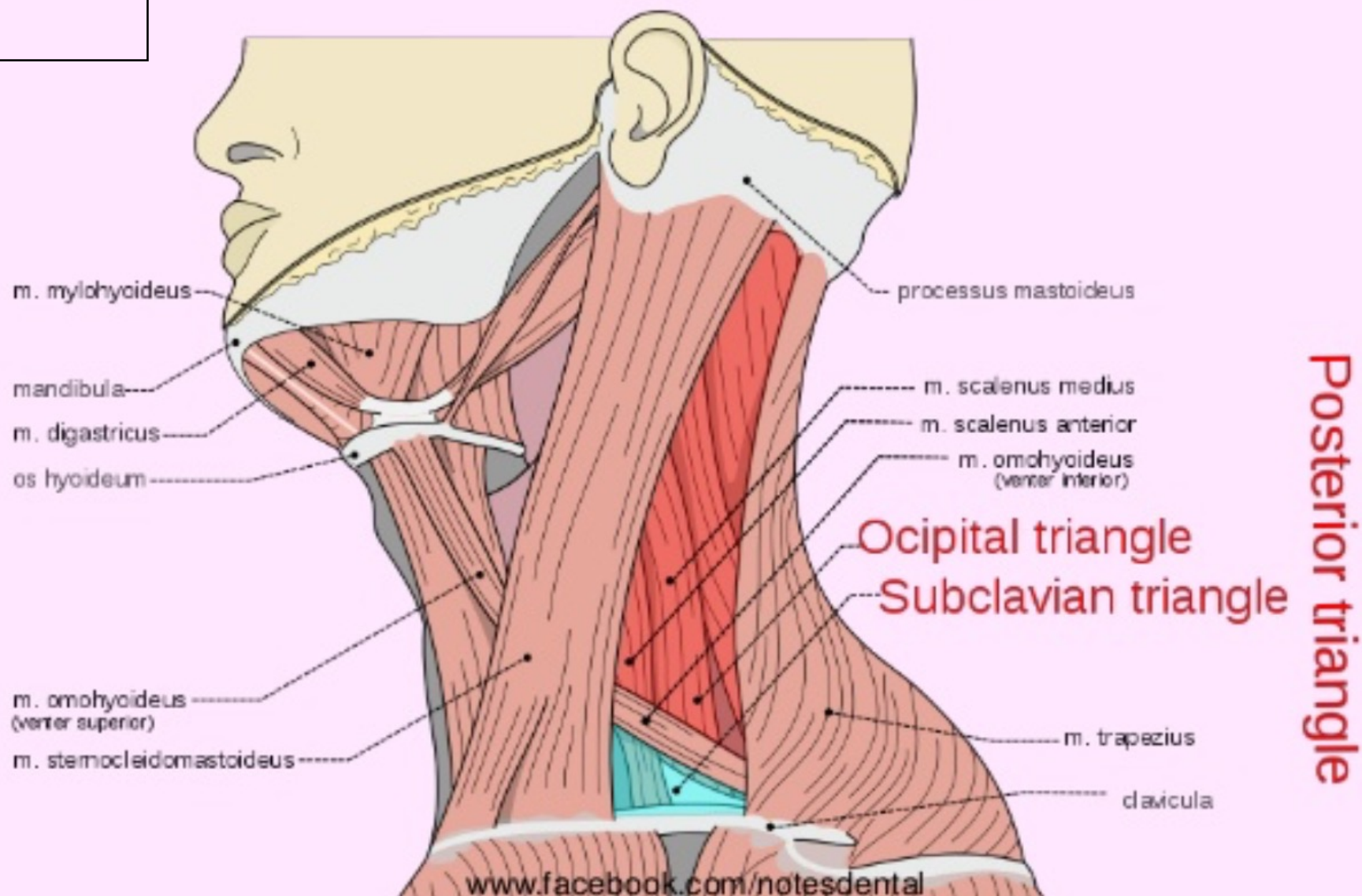
Anterior Triangle

Anterior triangle

- Submental triangle
- Submandibular triangle
- Carotid triangle
- Muscular triangle



Posterior triangle



THE ANTERIOR TRIANGLE

ANTERIOR TRIANGLE

- **BOUNDARIES**

- Anterior border of the SCM muscle
- midline of the neck
- inferior border of the mandible

- **ROOF**

- Skin
- Superficial fascia and platysma muscle
- Investing layer of deep cervical fascia

SUBDIVISIONS OF THE ANTERIOR TRIANGLE

- The anterior triangle is divided into **four** smaller triangles:
 1. SUBMENTAL TRIANGLE
 2. SUBMANDIBULAR TRIANGLE
 3. CAROTID TRIANGLE
 4. MUSCULAR TRIANGLE

SUBMENTAL TRIANGLE

- **Borders**

- Body of hyoid
- Anterior digastric on right
- Anterior digastric on left

- **Floor** : Mylohyoid

- **Roof** is made of the:

- Skin
- Superficial fascia with platysma
- Deep cervical fascia

- Submental triangle is unpaired

- **Content:** Anterior Jugular vein and sub-mental lymph nodes

Facial artery and vein

Marginal mandibular
branch of facial nerve

Hyoid bone

Digastric muscle
(anterior belly)

Submandibular gland

Mylohyoid muscle

Internal jugular vein

Anterior jugular vein

Communicating vein

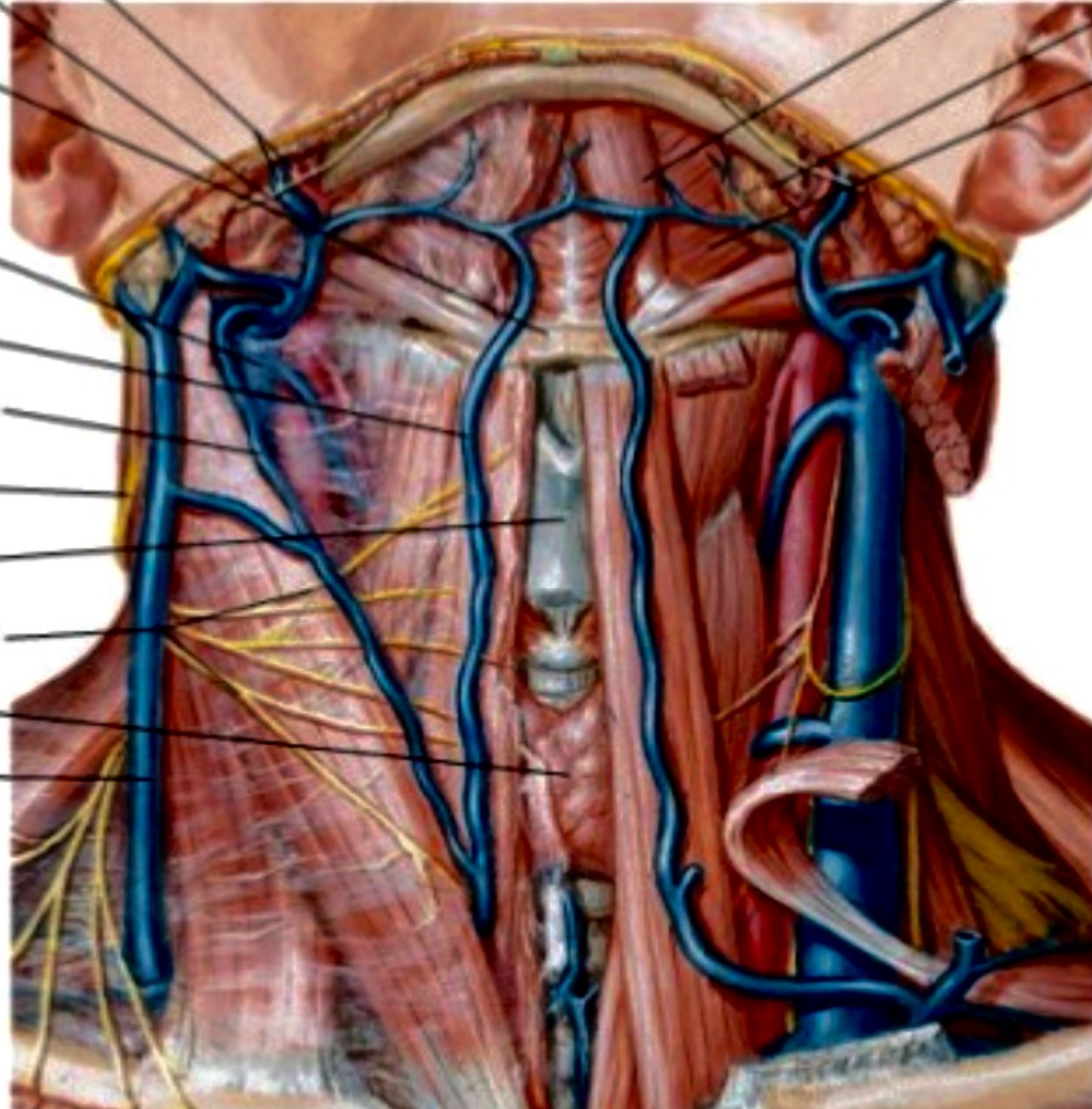
Great auricular nerve

Thyroid cartilage

Transverse cervical nerves

Thyroid gland

External jugular vein

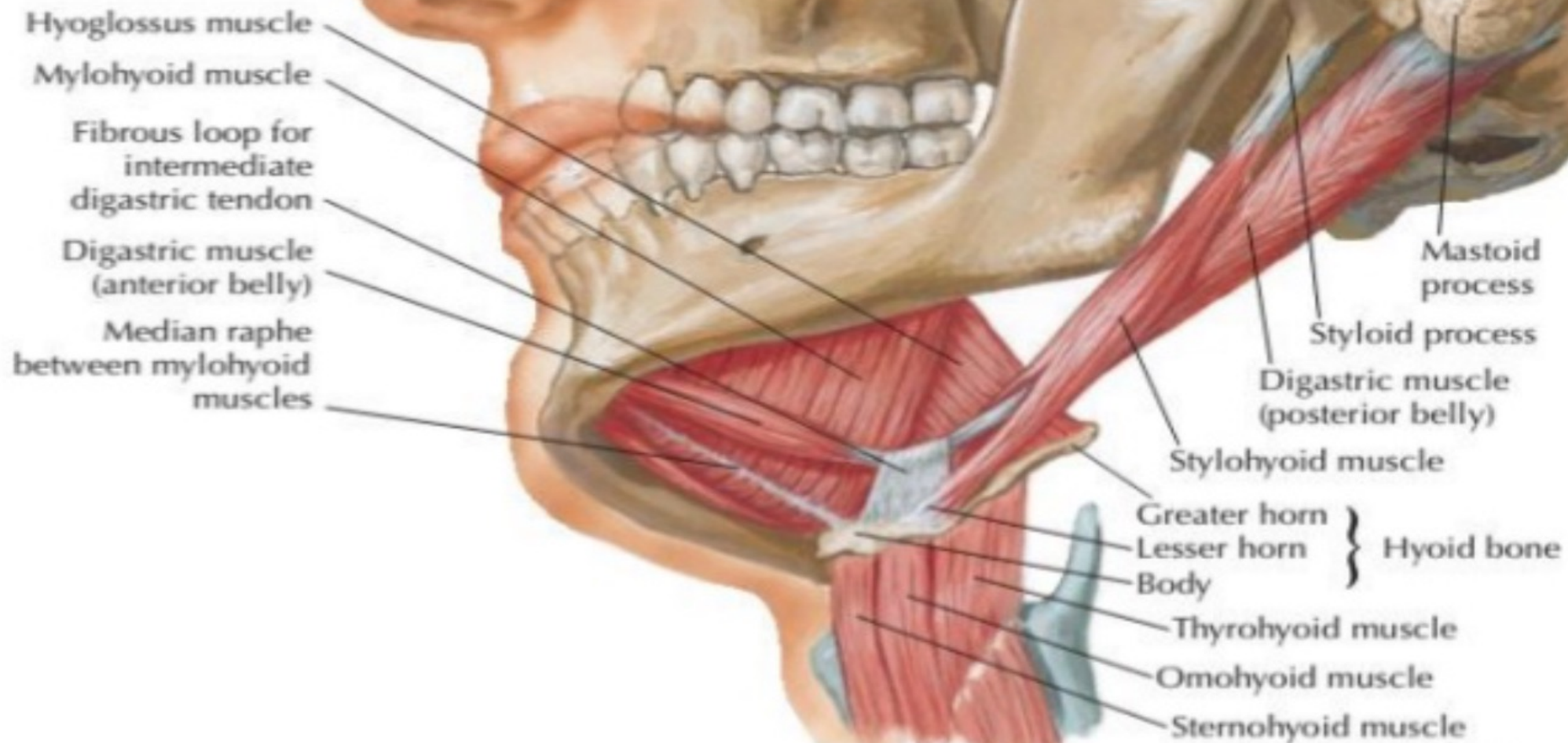


1/1/2020

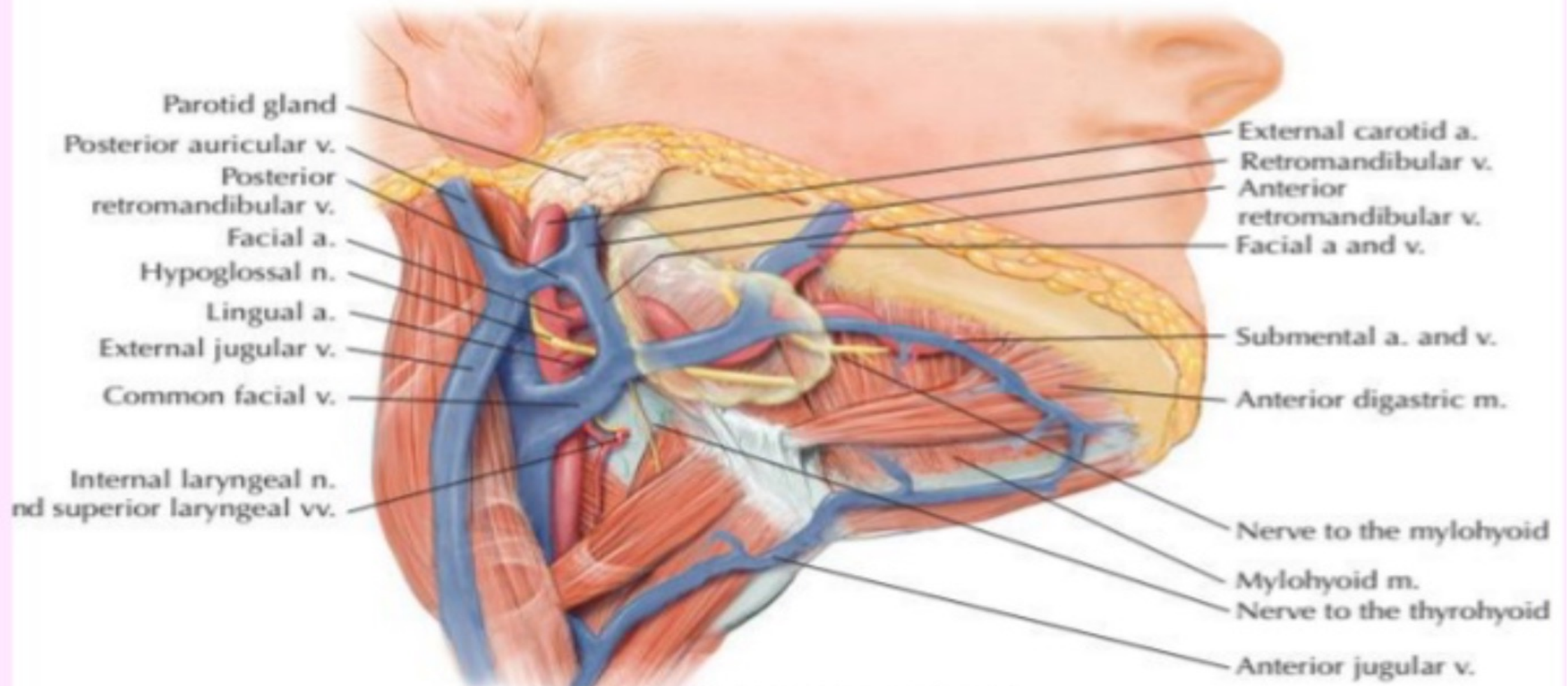
SUBMANDIBULAR TRIANGLE

- **Borders**
 - Inferior border of the mandible
 - Posterior digastric
 - Anterior digastric
- **Floor of the triangle**
 - Hyoglossus
 - Mylohyoid
 - Middle constrictor
- **Roof** is made of the:
 - Skin
 - Superficial fascia with platysma
 - Deep cervical fascia
- Submandibular triangle is **paired**

Lateral, slightly inferior view



SUBMANDIBULAR TRIANGLE



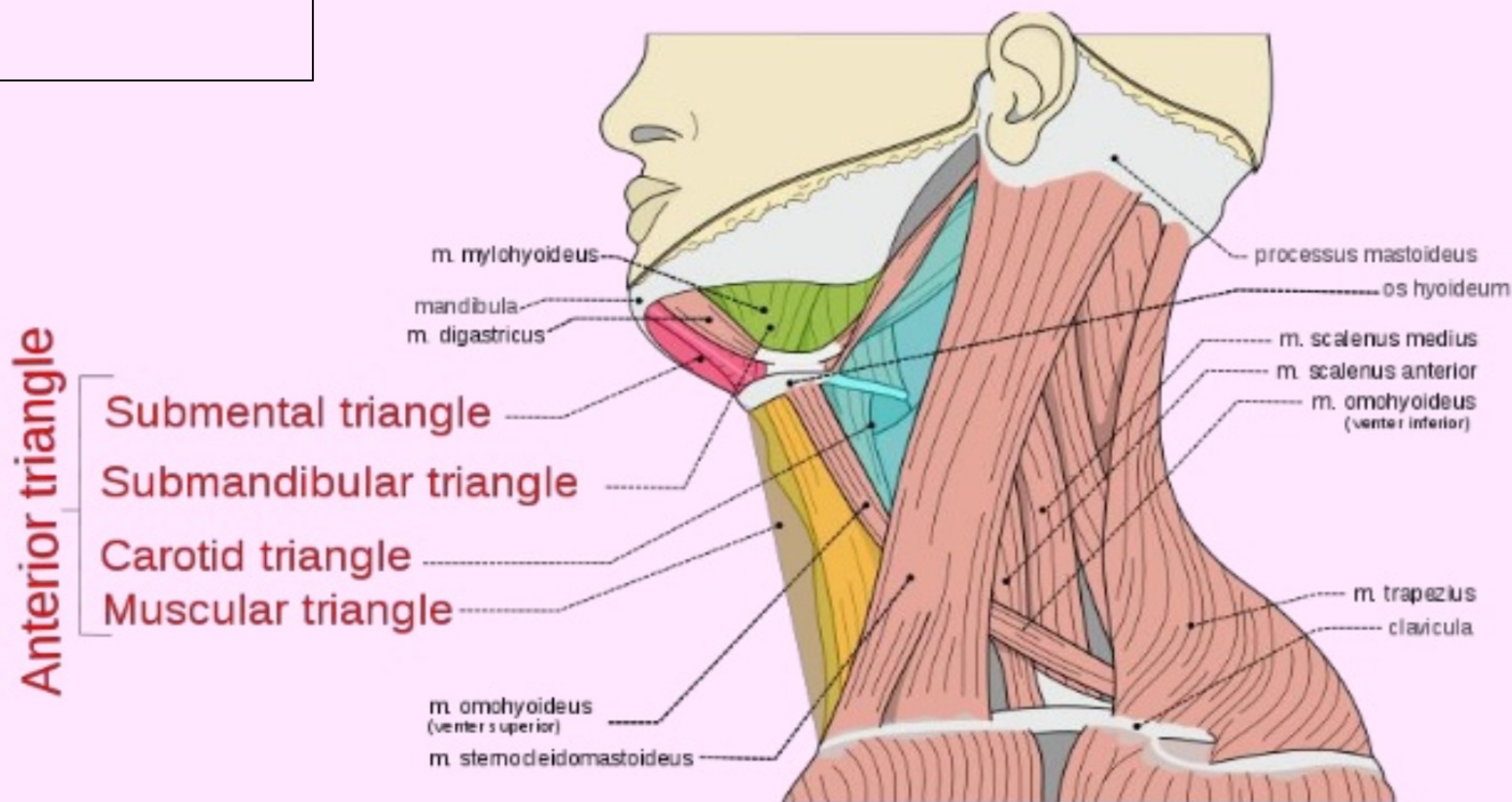
SUBMANDIBULAR TRIANGLE: Content

- **Arteries**
 - Facial
 - Sublingual
 - Submental
- **Veins:** same as arteries
- **Nerves :** Mylohyoid and hypoglossal
- **Structures**
 - Submandibular gland
 - Inferior portion of parotid gland
 - Submandibular lymph node

CAROTID TRIANGLE

- Named because parts of all three carotid arteries are located within it
- **Borders** of the carotid triangle:
 - Anterior border of the sternocleidomastoid
 - Posterior digastric
 - Superior omohyoid
- **Floor** of the triangle is composed of the:
 - Hyoglossus
 - Thyrohyoid
 - Middle constrictor/Inferior constrictor
- **Roof**
 - Skin
 - Superficial fascia with platysma
 - Deep cervical fascia
- Carotid triangle is **paired**

CAROTID TRIANGLE



CAROTID TRIANGLE

- **Arteries**

- Common carotid (with carotid body)
- Internal carotid (with carotid sinus)
 - Superior thyroid (with superior thyroid)
 - Lingual
 - Facial
 - Ascending pharyngeal
 - Occipital

- **Vein**

- Internal Jugular vein
- Common facial vein
- Lingual Vein
- Superior Thyroid vein
- Middle thyroid vein www.facebook.com/notesdental

- **Nerves**

- Vagus
 - External laryngeal
 - Internal laryngeal
- Spinal Accessory
- Hypoglossal
- Ansa cervicalos
- Sympathetic trunk

- **Structures**

- Larynx
- Thyroid

**Parotid fossa:
right lateral
dissection**

Mastoid process

Styloid process

Facial nerve (VII) (cut)

Sternocleidomastoid
muscle (cut)

Digastric muscle
(posterior belly) (cut)

Occipital artery and
sternocleidomastoid
branch

Accessory nerve (XI)

Ansa cervicalis { Superior root

Inferior root

Vagus nerve (X)

Ascending pharyngeal artery

Carotid branch of
glossopharyngeal
nerve (IX) and carotid body

Internal carotid artery

Internal jugular vein

Superficial temporal artery

Transverse facial artery

Maxillary artery

External carotid artery

Posterior auricular artery

Glossopharyngeal nerve (IX)

Stylohyoid muscle

Hypoglossal nerve (XII)

Facial artery

Lingual artery

Mylohyoid muscle

Hyoglossus muscle

Digastric muscle
(anterior belly)

Hyoid bone

Branch to thyrohyoid
muscle (from ansa
cervicalis)

Superior laryngeal artery

Superior thyroid artery

External carotid artery

Common carotid artery

MUSCULAR TRIANGLE

- **Borders**

- Anterior border of the sternocleidomastoid
- Superior omohyoid
- Midline

- **Floor**

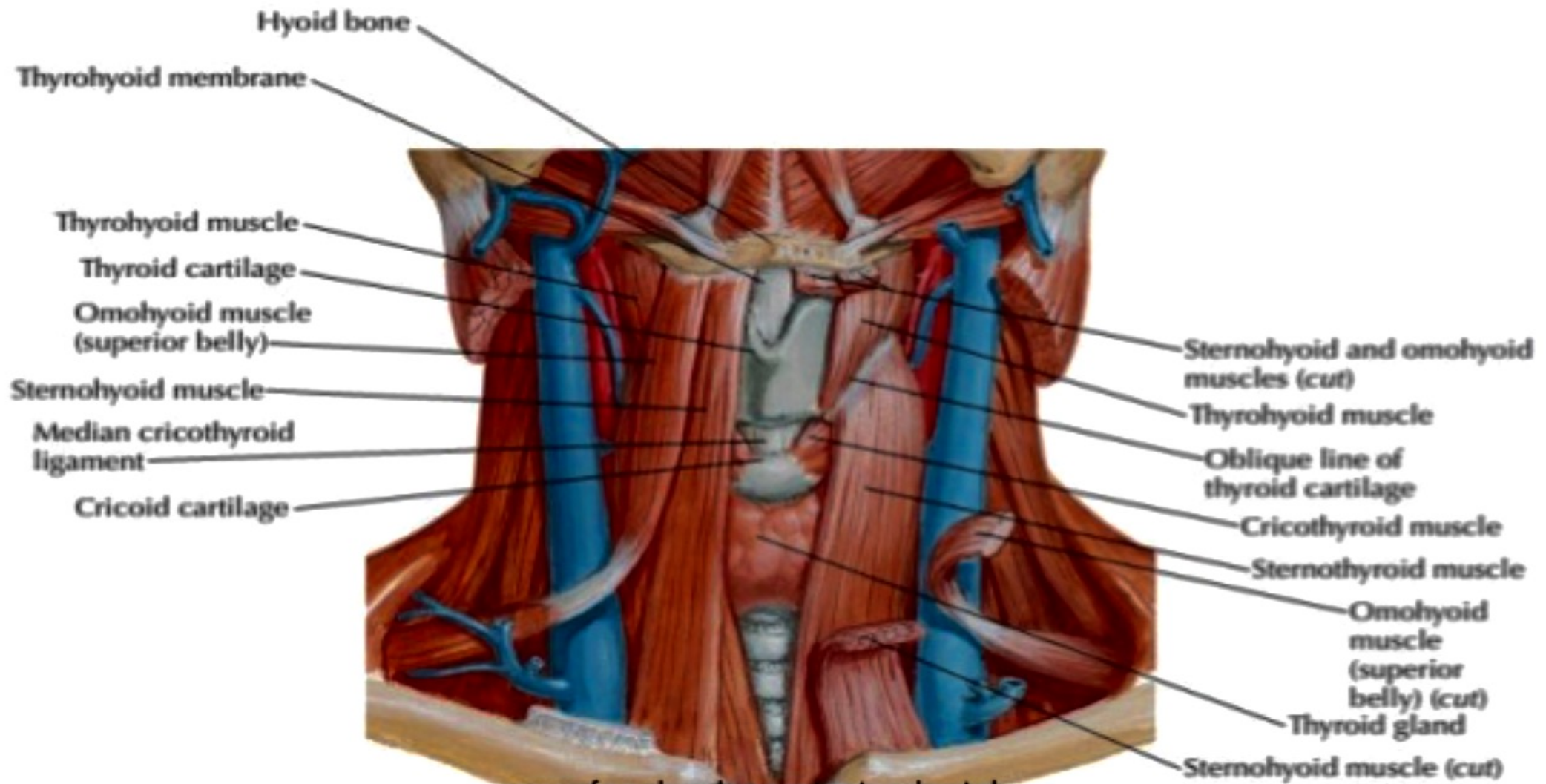
- Sternohyoid
- Sternothyroid

- **Roof**

- Skin
- Superficial fascia with platysma
- Deep cervical fascia

- Muscular triangle is **paired**

MUSCULAR TRIANGLE

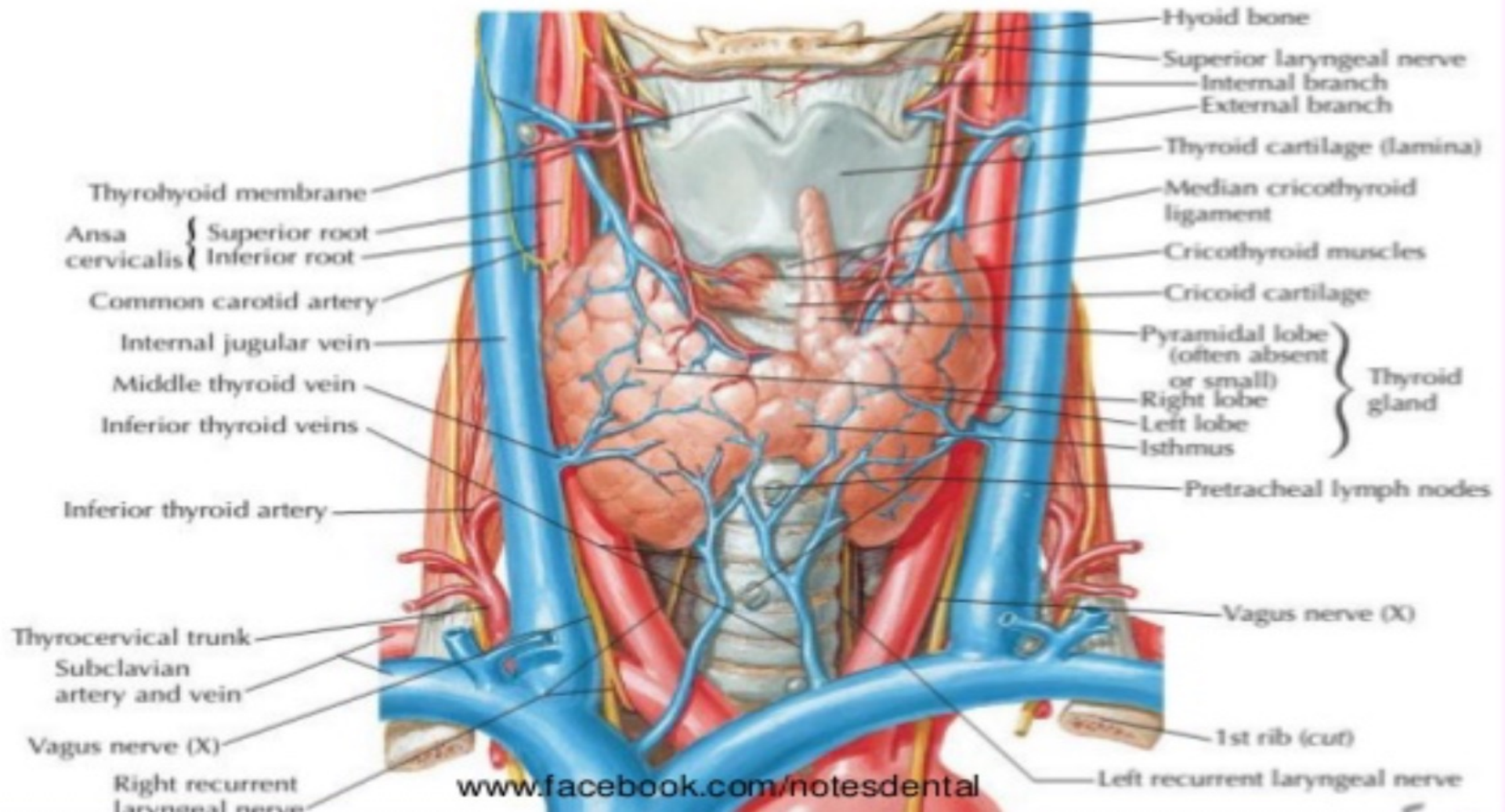


MUSCULAR TRIANGLE: Content

- **Arteries**
 - Superior thyroid
- **Veins**
 - Inferior thyroid
 - Anterior jugular
- **Nerves:** Ansa cervicalis
- **Structures**
 - **Strap muscles:** Sternohyoid, Sternothyroid, Thyrohyoid
 - Thyroid gland
 - Parathyroid gland
 - Larynx
 - Trachea
 - Esophagus

MUSCULAR TRIANGLE:

Content



Posterior triangle

- Boundaries
 - SCM **anteriorly**
 - Trapezius muscle, **posteriorly**.
 - Clavicle, **inferiorly**.
- The apex of the triangle is formed by the occipital bone.
- The **ROOF** of the posterior triangle is formed by:
 - Skin
 - Superficial fascia
 - Platysma muscle
 - Investing layer of the deep cervical fascia

FLOOR

Formed by the following muscles from above downwards:

- Splenius Capitis
- Levator scapulae
- Posterior scalene
- Middle scalene
- Anterior scalene

Subdivisions of the posterior triangle

- The posterior triangle is further divided into two smaller triangles by the **Inferior belly of the Omohyoid muscle**.
- **Supraclavicular triangle**
 - Inferior belly of the Omohyoid
 - the Clavicle,
 - Sternocleidomastoid muscle
- **Occipital triangle**
 - Inferior belly of the Omohyoid
 - Trapezius muscle
 - Sternocleidomastoid muscle

m. mylohyoideus

mandibula

m. digastricus

os hyoideum

m. omohyoideus
(verter superior)

m. sternocleidomastoideus

processus mastoideus

m. scalenus medius

m. scalenus anterior

m. omohyoideus
(verter inferior)

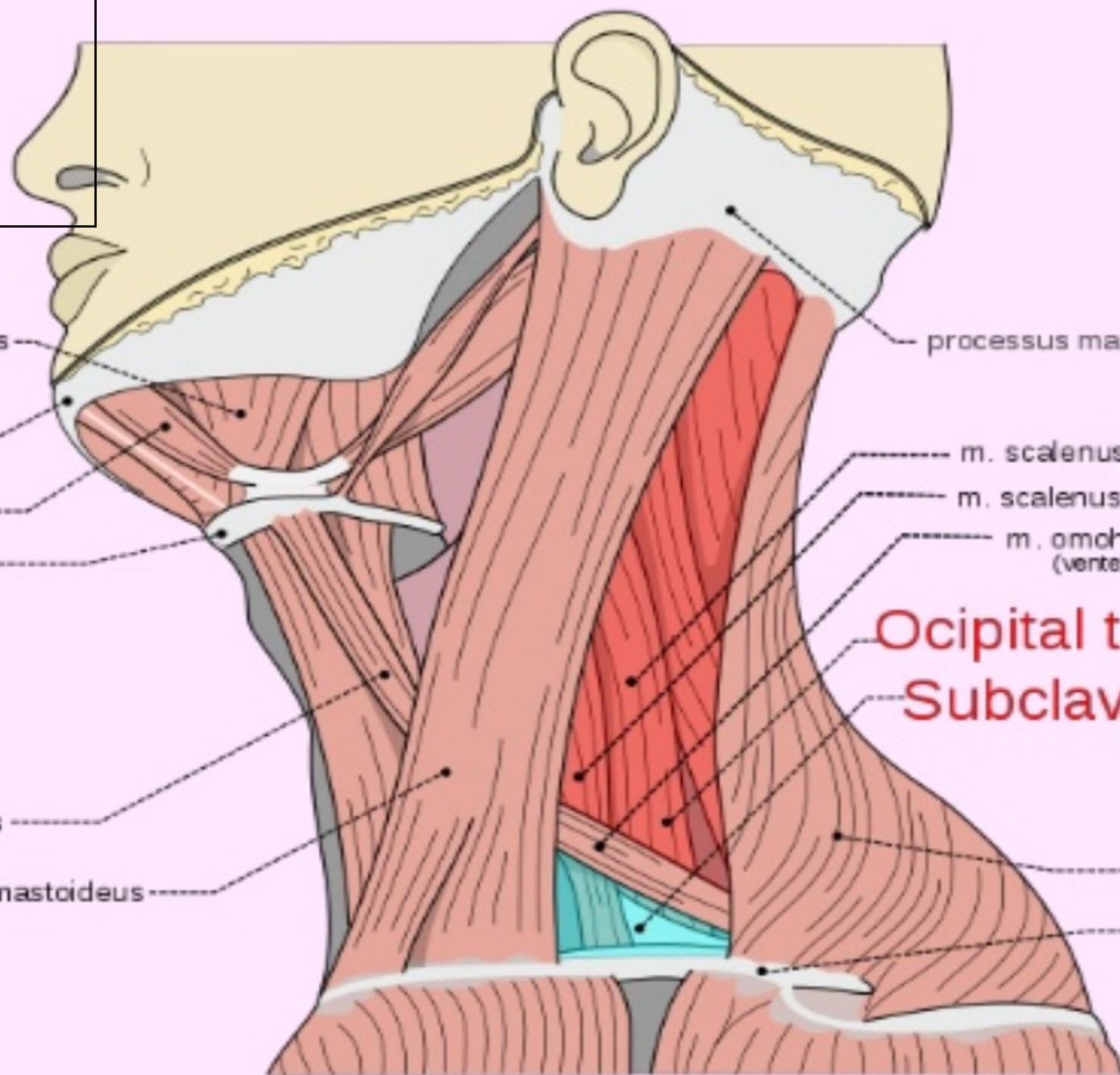
Occipital triangle

Subclavian triangle

m. trapezius

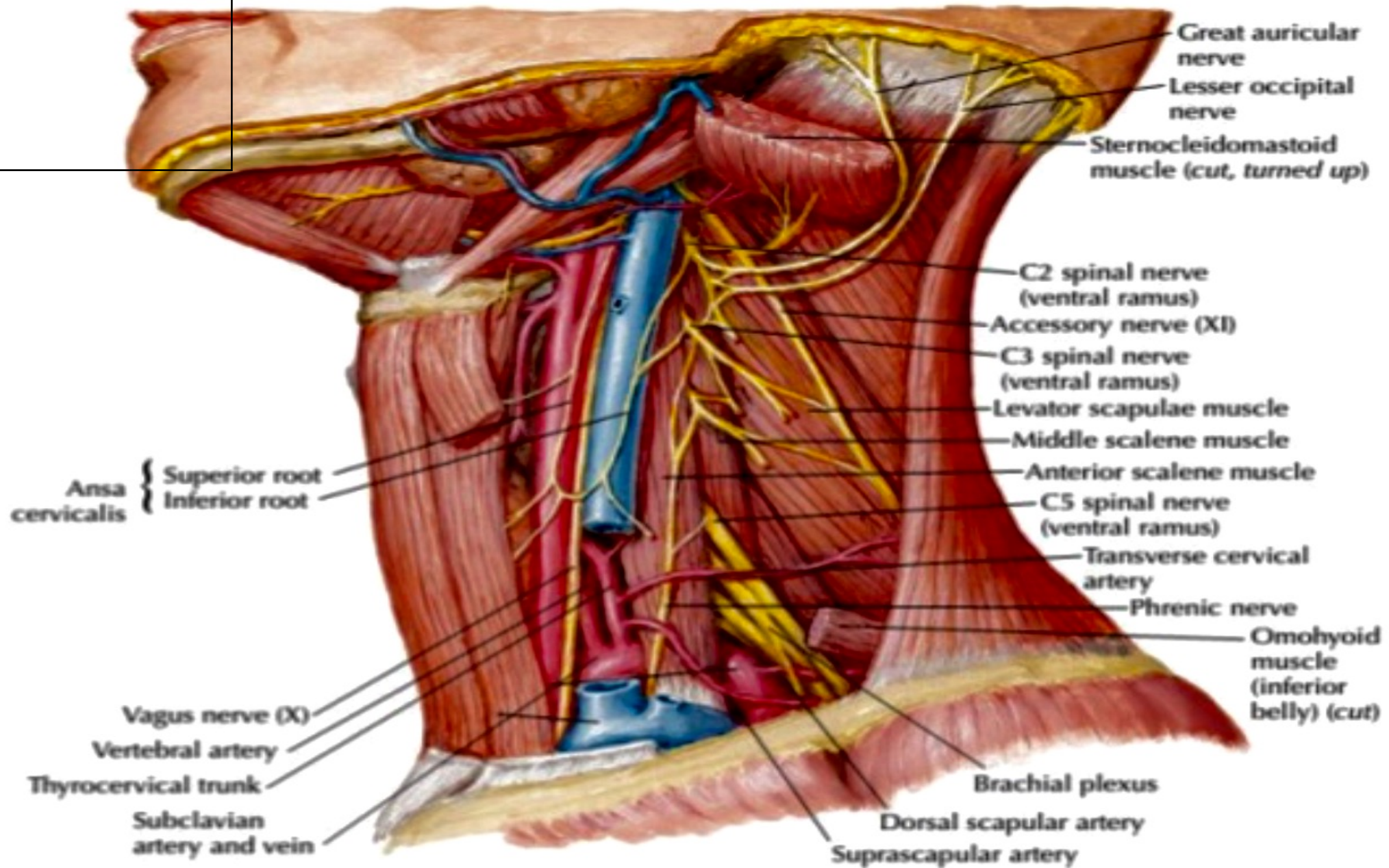
clavicula

Posterior triangle



CONTENTS: NERVES

- Spinal accessory nerve.
- Branches of Cervical plexus
 - Lesser occipital
 - Transverse cervical
 - Great auricular
 - Supraclavicular
- Roots and trunks of brachial plexus.
- Dorsal scapular
- Long thoracic
- Phrenic



VESSELS

- **Arteries**

- Subclavian artery
- Transverse Cervical artery
- Suprascapular artery

- **Vein**

- External jugular vein (terminal part)

- **Lymph Nodes**

- Occipital
- Supraclavicular

