

TRIANGLES OF THE NECK

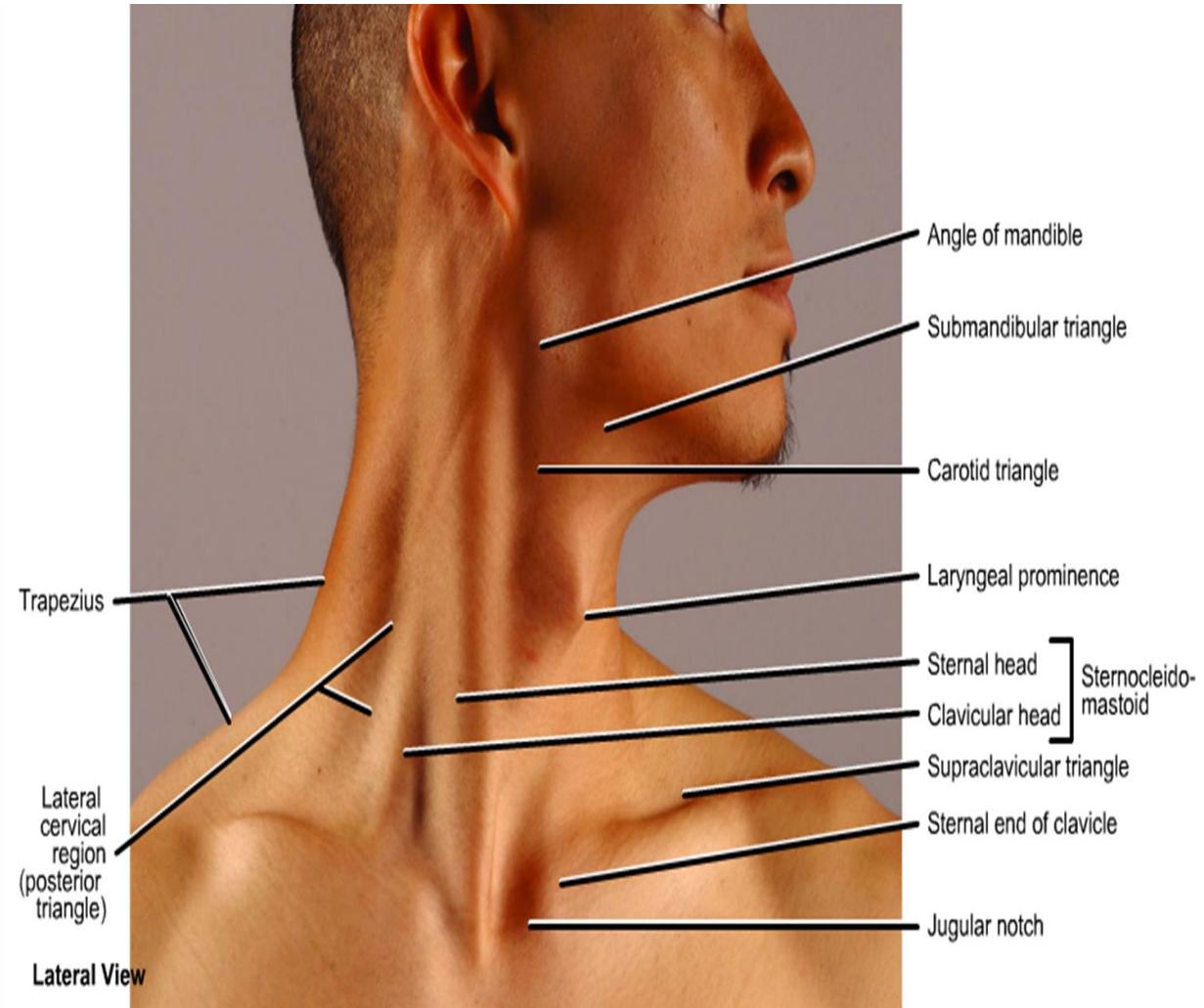
BY

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Posterior triangle of the neck

- ★ The antero-lateral side of neck is divided by sternomastoid muscle into anterior & posterior triangles.



Sternocleidomastoid Muscle

Origin:

a) sternal head: anterior surface of manubrium sterni.

b) clavicular head: Medial 1/3 of upper surface of clavicle.

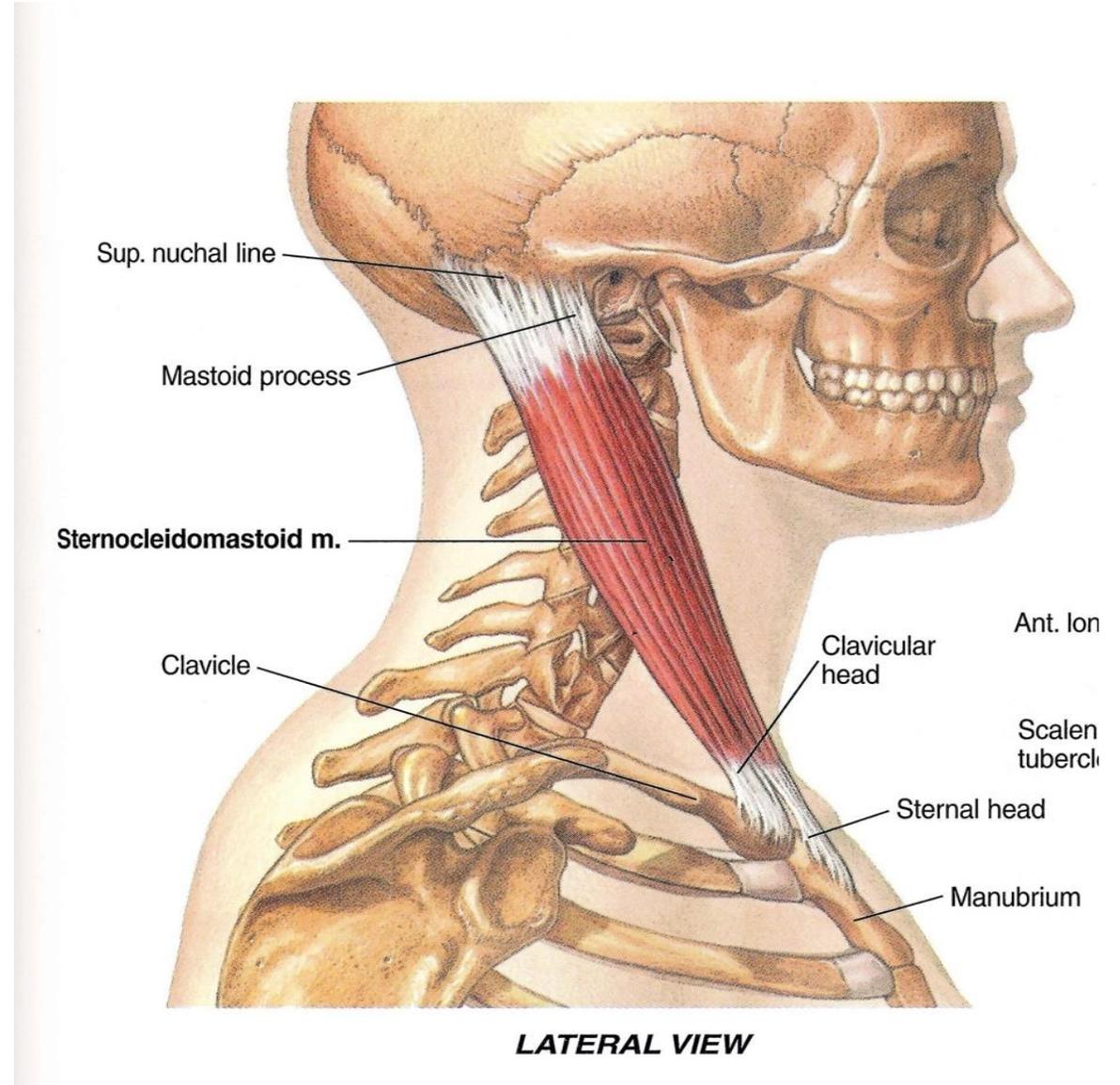
Insertion: Lateral surface of mastoid process & lateral 1/2 of superior nuchal line.

Nerve supply: Spinal accessory nerve (motor) & branch from C_{2&3} (sensory).

Action:

a) When one muscle act, it bends the head to same side and the face is rotated to the opposite side.

b) When 2 muscles act, they flex the neck and rise the head from supine position.



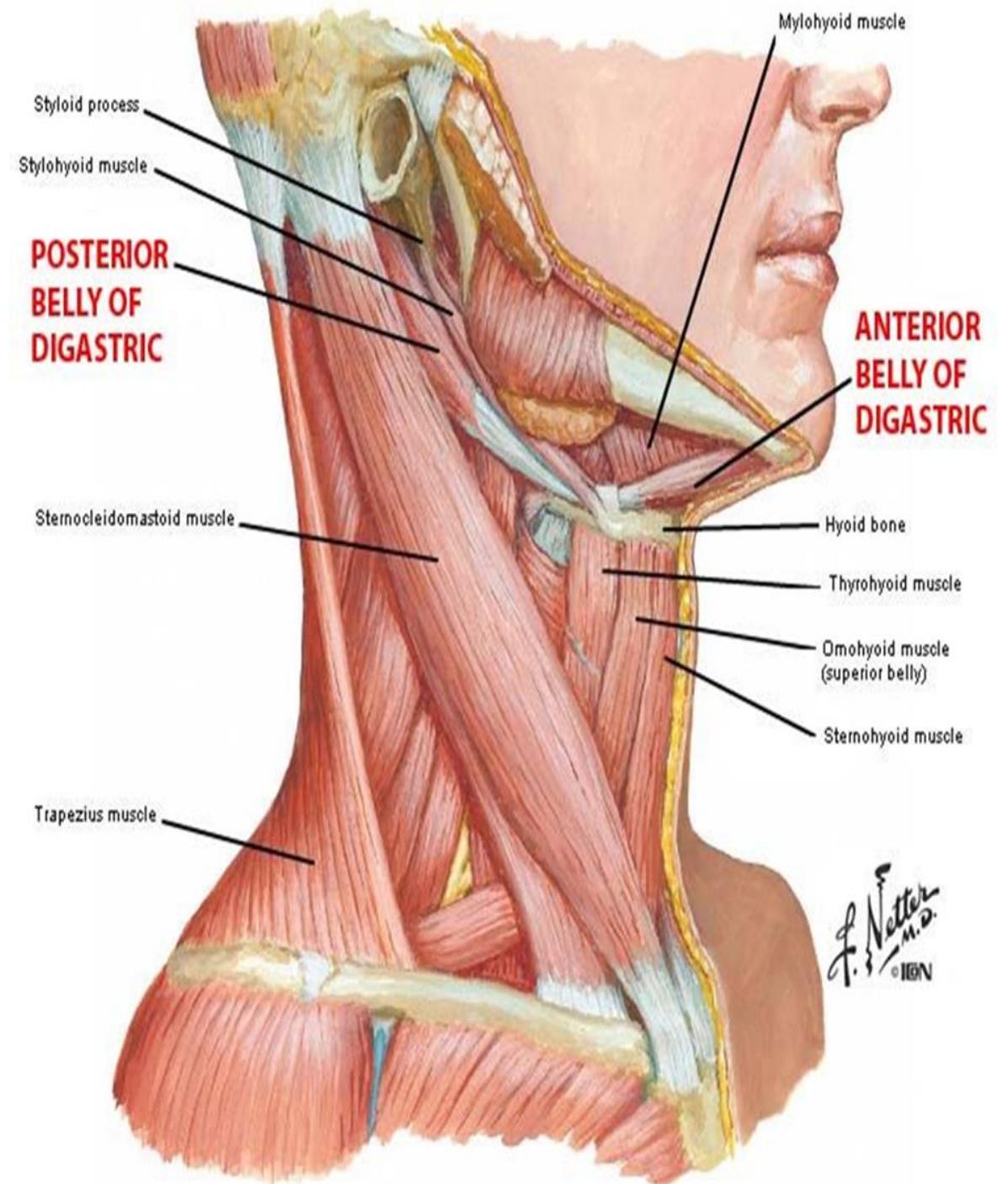
★ **Boundaries:**

1. Anterior: Posterior border of sternomastoid.

2. Posterior: anterior border of trapezius.

• **3. Apex:** at the superior nuchal line between the attachments of sternocleidomastoid and trapezius.

4. Base: middle 1/3 of clavicle.



5. Roof:

Skin .Superficial fascia containing:

Platysma.

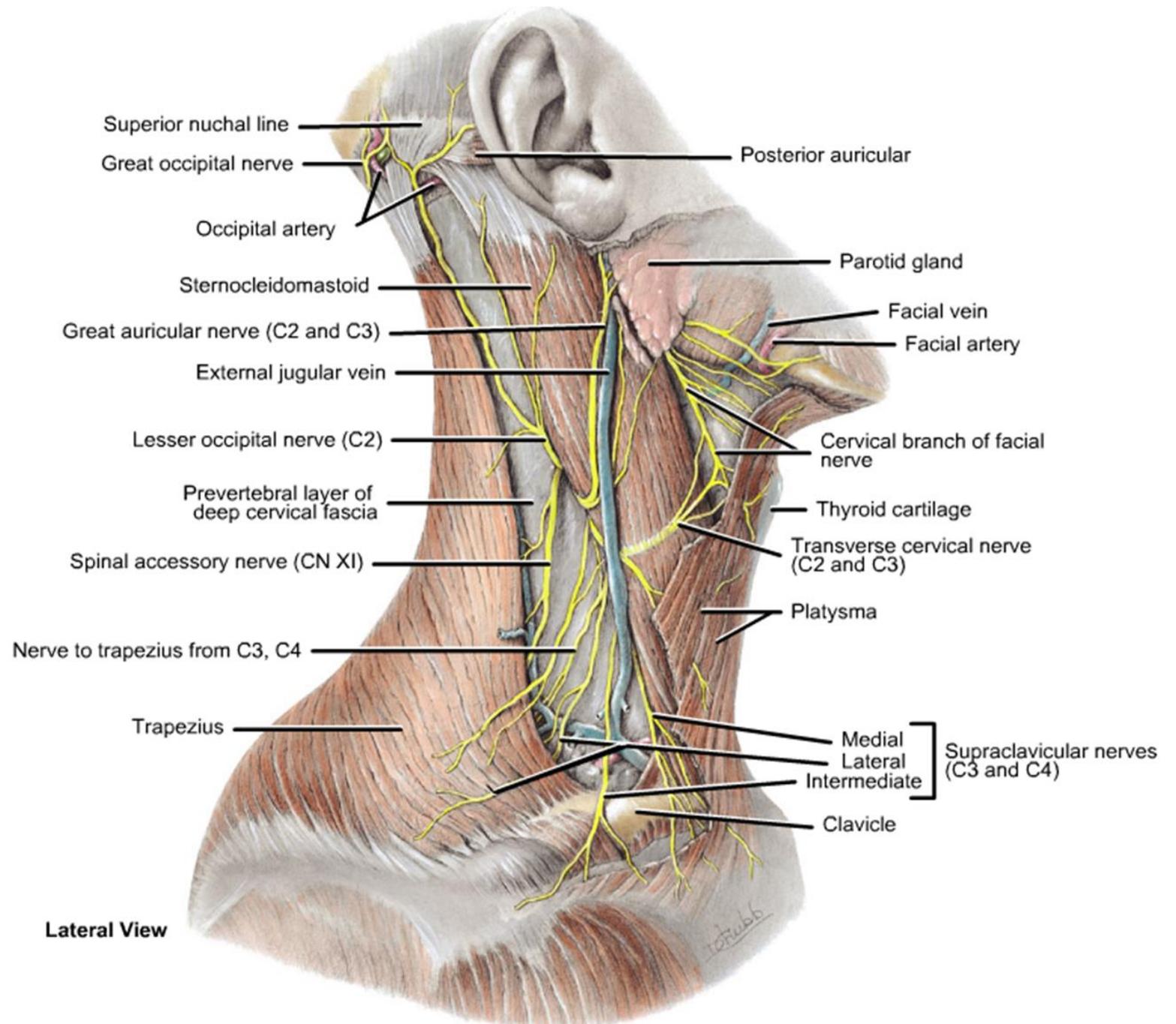
External jugular vein.

Cutaneous branches of cervical plexus: lesser occipital nerve, great auricular nerve, transverse cutaneous nerve of the neck and supraclavicular nerves.

Superficial cervical lymph nodes

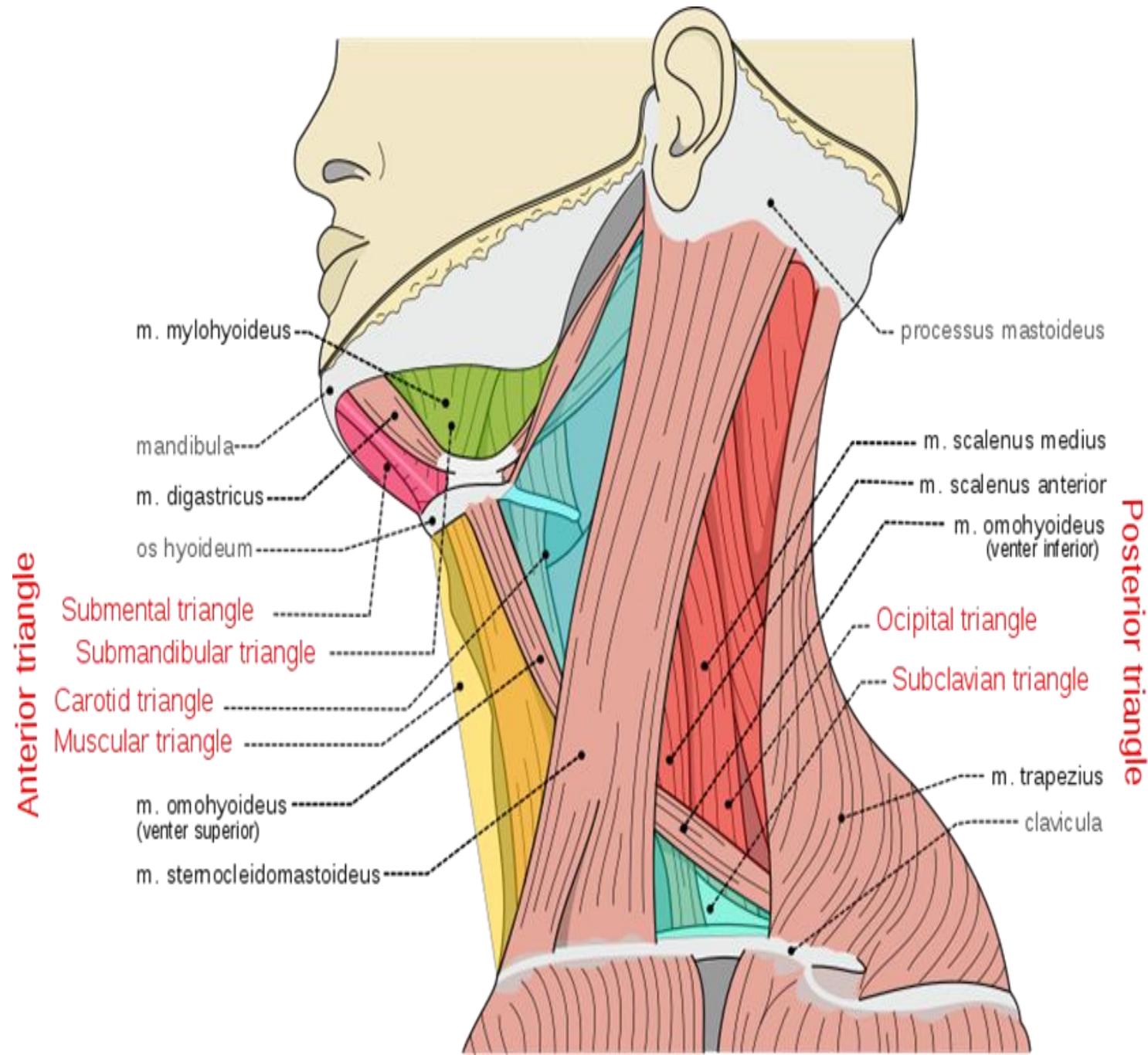
along the external jugular vein and spinal accessory nerve.

Investing deep fascia of the neck: It is pierced by external jugular vein , cutaneous branches of cervical plexus and spinal root of accessory nerve.



6. Floor: Prevertebral fascia covering the following muscles from above downwards (SLS): Splenius capitis, Levator scapulae and Scalenus medius.

- **Division:** The inferior belly of omohyoid divides the triangle into
 - large occipital triangle
 - small supraclavicular triangle

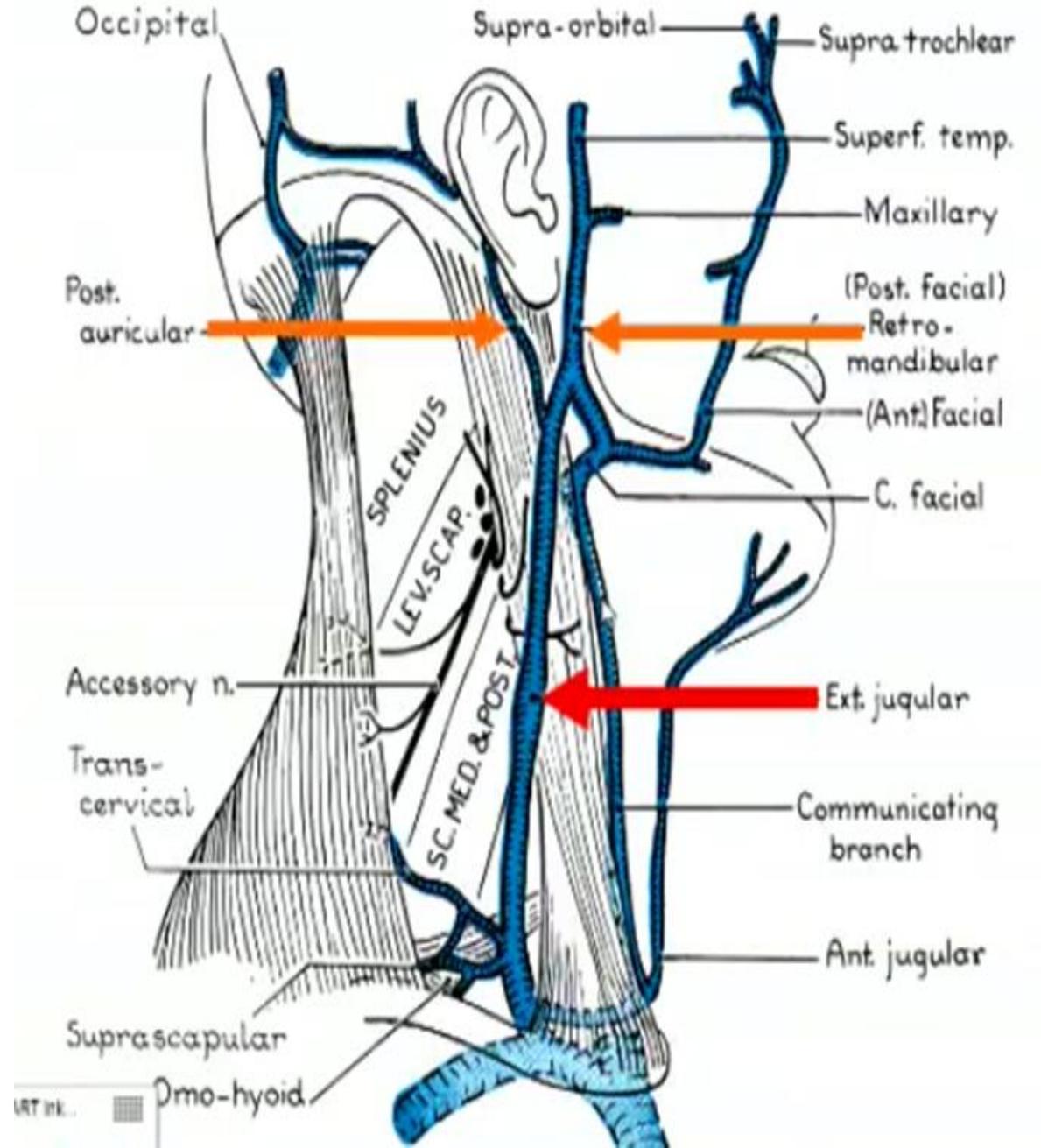


- Contents:

- l) Nerves:

- a) Spinal accessory nerve:

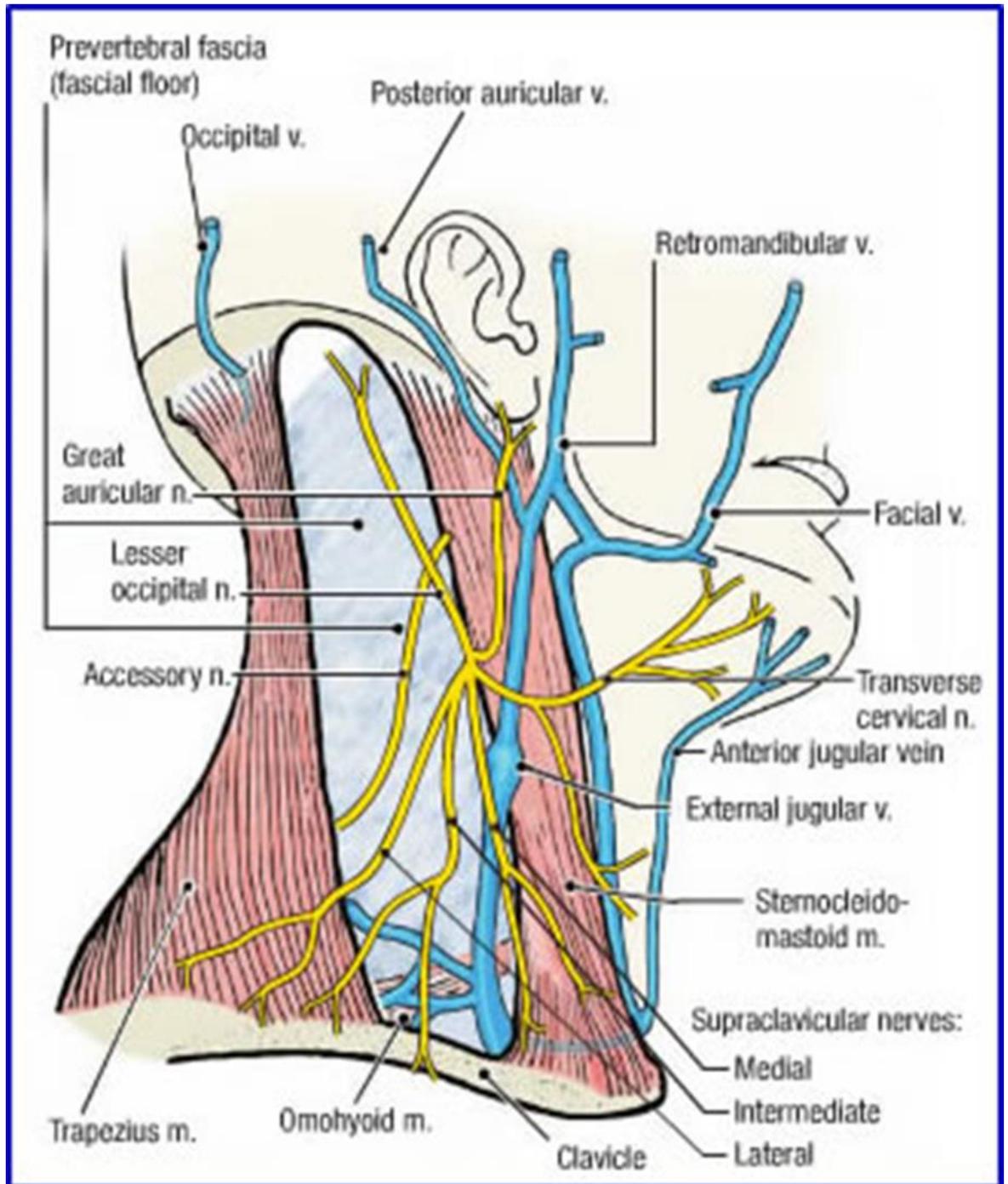
- It appears at the junction of the upper and middle thirds of the posterior border of sternomastoid and descends downwards and backwards embedded in the substance of the deep fascia of the roof in line with levator scapulae.
 - It is related to few superficial cervical lymph nodes.
 - It disappears inside the trapezius to supply it 5 cm above the clavicle.



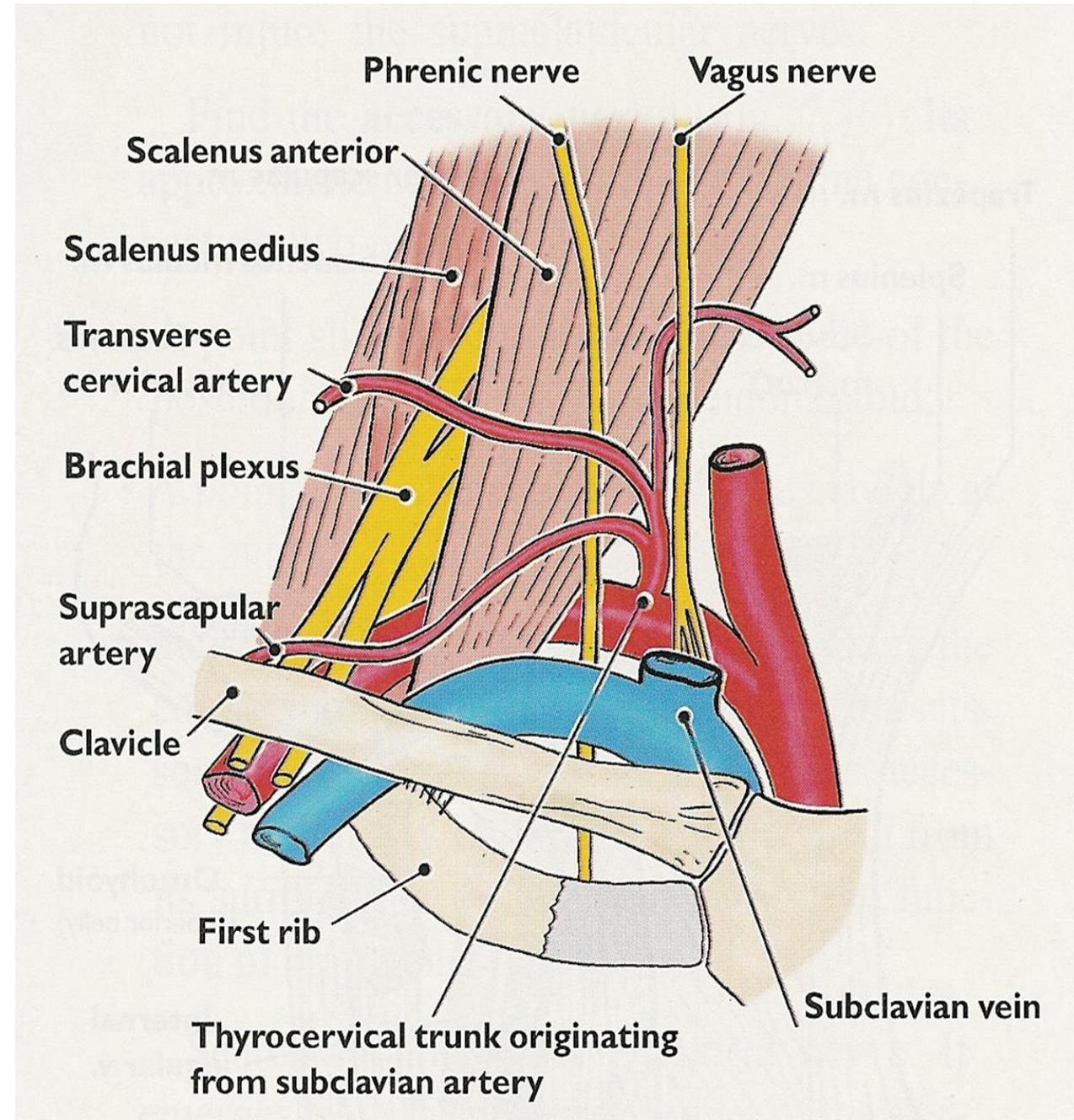
b) Branches of cervical plexus:

- **Muscular branches** to sternomastoid, trapezius, levator scapulae, 3 scaleni and phrenic nerve (to diaphragm).
- **Cutaneous branches** appear at the middle of posterior border of sternomastoid muscle, pierce the deep fascia of the roof to reach the superficial fascia and supply the skin. They are:

1. **Lesser occipital nerve (C2):** Ascends along the posterior border of the sternomastoid to supply the skin of the occipital region and the back of auricle.
2. **Great auricular nerve (C2,3):** Runs upwards and forwards on the surface of the sternomastoid to supply the skin over the parotid gland, angle of mandible and lower part of auricle.
3. **Transverse cutaneous nerve of neck (C2,3):** Runs transversely across the sternomastoid muscle towards the midline of the neck, it divides into upper and lower branches to supply the skin of the anterior part of neck.
4. **Supraclavicular nerves (C3,4):** Descend downwards as 3 branches (medial, intermediate and lateral) and cross the clavicle to supply the skin of the chest as far down as the level of the sternal angle, and upper half of deltoid muscle.



- **C- Upper, middle & lower trunks of brachial plexus lie in the lower part of the triangle and pass between scalenus anterior and scalenus medius.**



II) Arteries:

a- Near the base of the triangle:

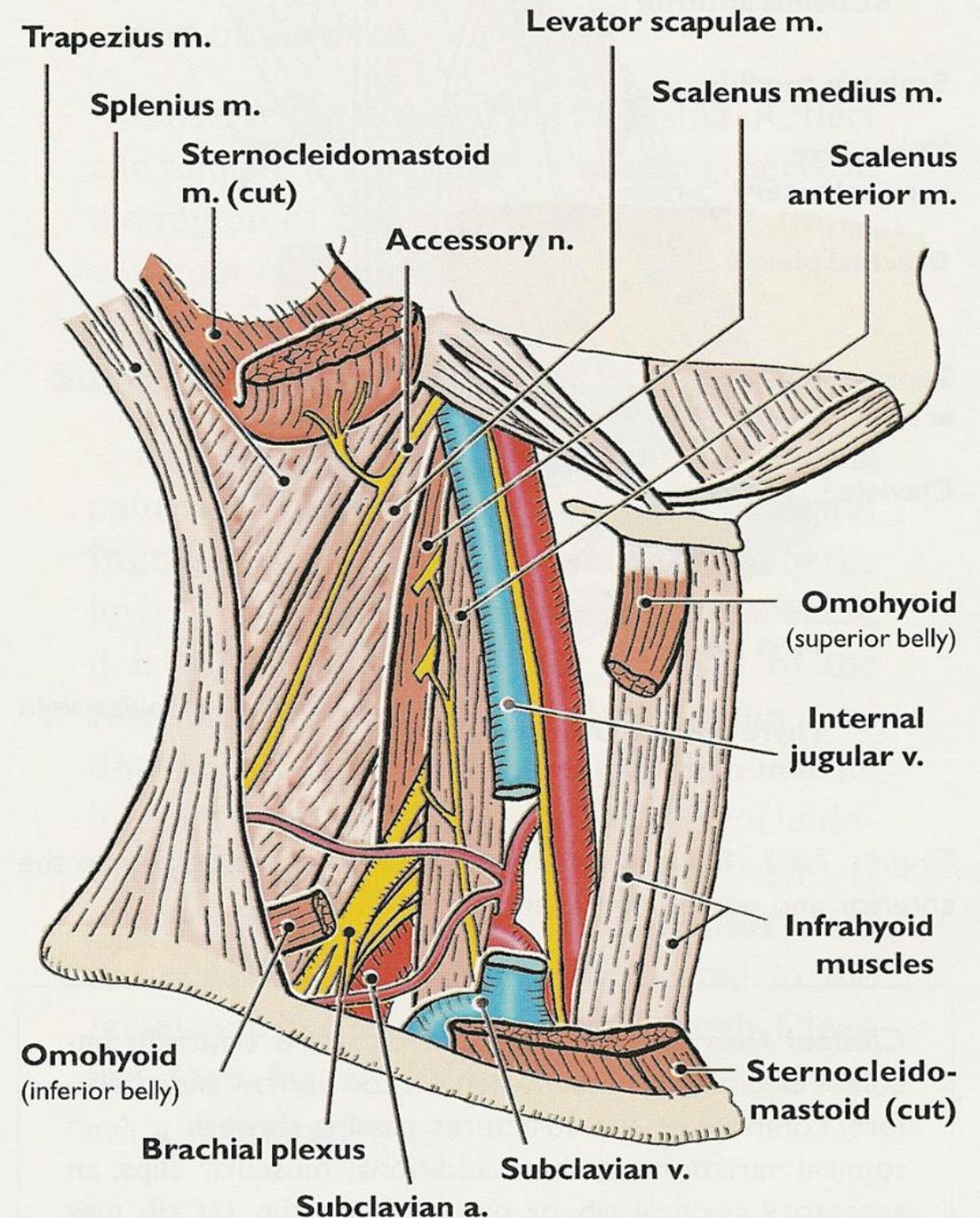
1- **Third part of subclavian artery:** It lies in the lower part of the triangle in front of the lower trunk of brachial plexus.

2. **Suprascapular artery:** It is a branch of the thyrocervical trunk. It crosses the triangle very close to the clavicle.

2. **Transverse cervical artery:** It is a branch of the thyrocervical trunk. It crosses the lower part of the triangle above the suprascapular artery

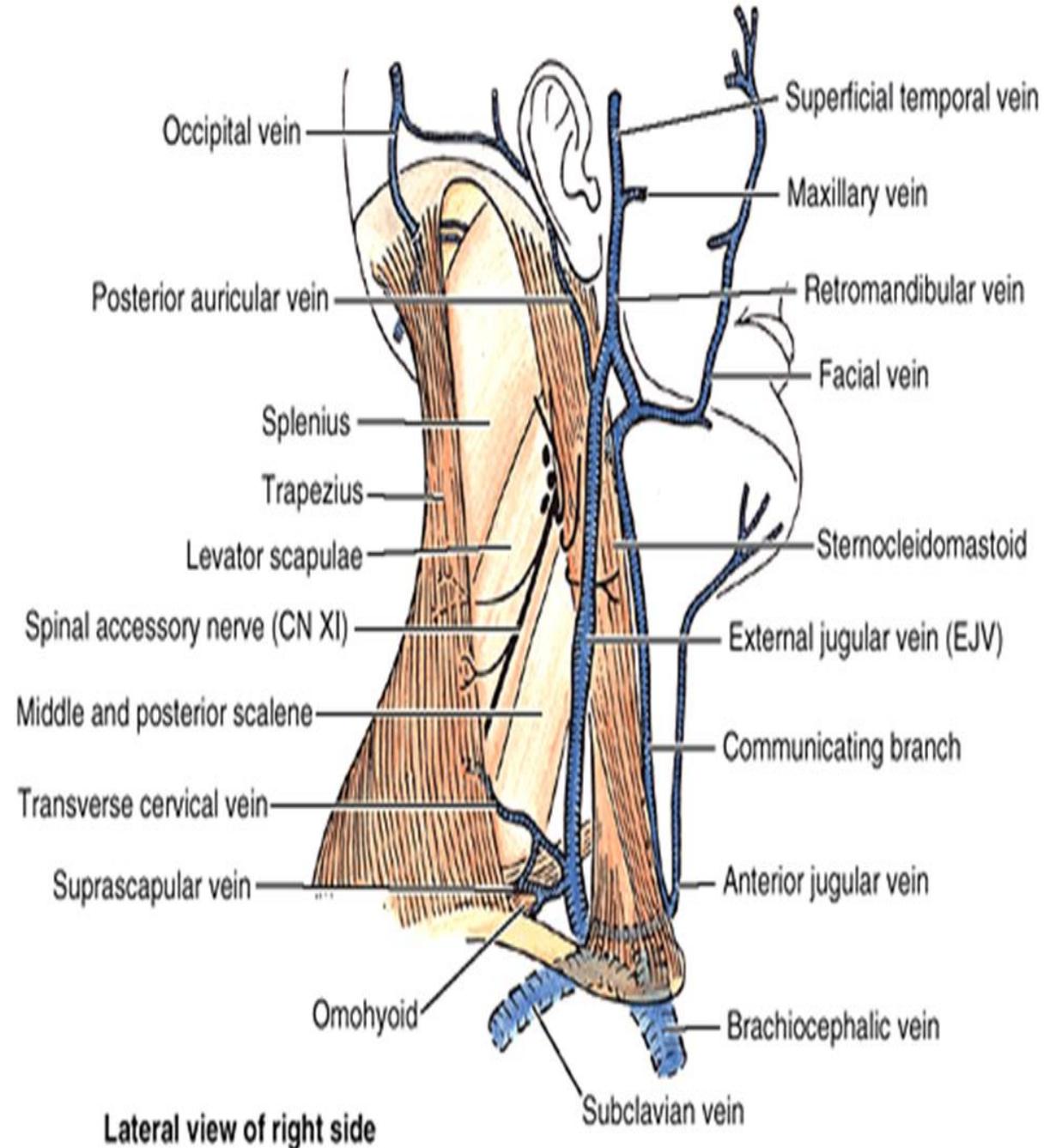
B- Near the apex of the triangle

there is the **occipital artery**, a branch of the external carotid artery, crosses at the apex of the posterior triangle and ascends over the head to supply the posterior half of the scalp.



III) Veins:

1. **Suprascapular:** It accompanies its artery and ends in the external jugular vein.
2. **Transverse cervical:** It accompanies its artery and ends in the external jugular vein.
3. **External jugular veins:**
 - It begins below the parotid gland by union of the posterior auricular vein and posterior division of retromandibular vein.
 - It descends obliquely on the surface of the sternomastoid, superficial to the deep fascia of roof of the posterior triangle till about 1 inch above the clavicle where it pierces the deep fascia of the roof of the posterior triangle and continues downwards inside the triangle to end in the subclavian vein.



IV) Muscle:

Inferior belly of omohyoid.

- It runs upwards and forwards in the lower part of the triangle to end deep to the sternomastoid .
- It divides the posterior triangle into 2 parts:
 1. Occipital triangle above.
 2. Subclavian (supraclavicular) triangle below

V) Lymph nodes:

1. **Occipital** lymph nodes in the apex of the posterior triangle.
 2. **Supraclavicular** lymph nodes in the lower part of the posterior triangle.
 - 3- **posterior cervical** at the center of posterior triangle
- ★ **N.B:** The commonest swelling in the posterior triangle is lymph nodes enlargement .

