المحاضرة السابعه







NECK

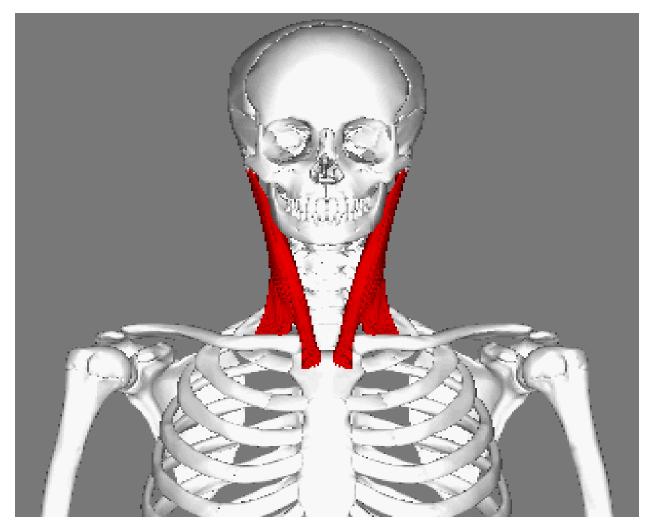
TRIANGLES

STERNOMASTOID

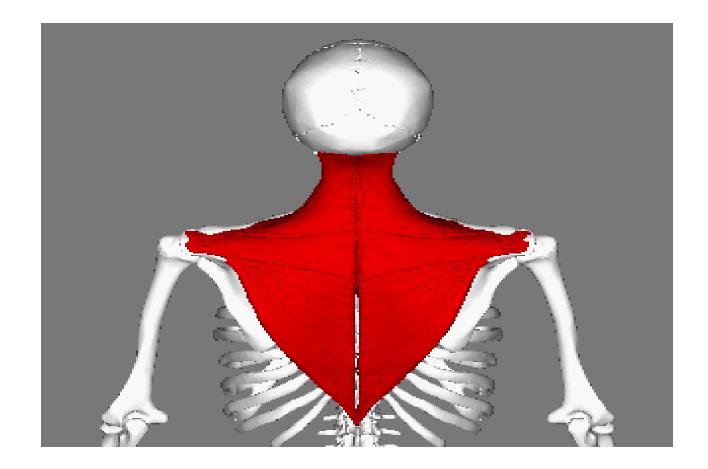




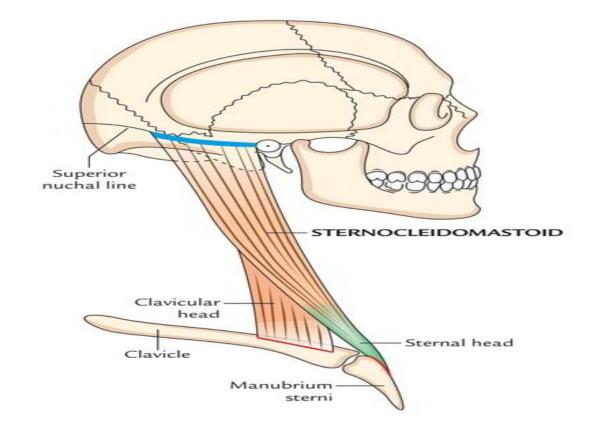
File:Sternomastoid muscle animation



File:Trapezius muscle animation



STERNOMASTOID



 The sternocleidomastoid muscle is one of the largest and most superficial cervical muscles. The primary actions of the muscle are rotation of the head to the opposite side and <u>flexion</u> of the neck. The sternocleidomastoid is innervated by the <u>accessory</u> nerve.

Sternocleidomastoid muscle

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 It is given the name *sternocleidomastoid* because it originates at the <u>manubrium</u> of the <u>sternum</u> (*sterno-*) and the <u>clavicle</u> (*cleido-*),

• and has an insertion at the mastoid process of the temporal bone of the skull

• The sternocleidomastoid muscle originates from two locations: the <u>manubrium</u> of the <u>sternum</u> and the <u>clavicle</u>.

• It travels obliquely across the side of the neck

- and inserts at the mastoid process of the temporal bone of the skull.
- The sternocleidomastoid is thick and narrow at its centre, and broader and thinner at either end.
- •

- The sternal head is a round <u>fasciculus</u>, tendinous in front, fleshy behind, arising from the upper part of the front of the <u>manubrium sterni</u>. It travels superiorly, laterally, and posteriorly.
- The clavicular head is composed of fleshy and <u>aponeurotic</u> fibers, arises from the upper, frontal surface of the medial third of the <u>clavicle</u>; it is directed almost vertically upward

 The two heads are separated from one another at their origins by a triangular interval (*supraclavicular fossa*) but gradually blend, below the middle of the neck, into a thick, rounded muscle

 which is inserted, by a strong tendon, into the lateral surface of the <u>mastoid process</u>, from its apex to its superior border, and by a thin <u>aponeurosis</u> into the lateral half of the <u>superior nuchal</u> <u>line</u> of the <u>occipital bone</u>.

Nerve supply

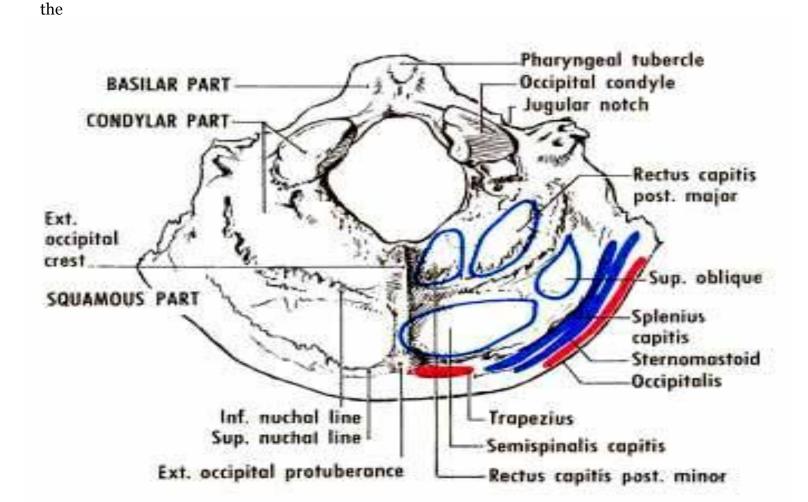
- The sternocleidomastoid is innervated by the <u>accessory</u> <u>nerve</u> of the same side. It supplies only motor fibres.
- The cervical plexus supplies sensation, including proprioception, via the ventral primary rami of C2 and C3.

- The function of this muscle is to rotate the head to the opposite side or obliquely rotate the head. It also flexes the neck. When both sides of the muscle act together, it <u>flexes</u> the neck and extends the head.
 When one side acts alone, it causes the head to rotate to the opposite side and flexes laterally to the same side (ipsilaterally).
- It also acts as an <u>accessory muscle of respiration</u>, along with the <u>scalene muscles</u> of the neck.

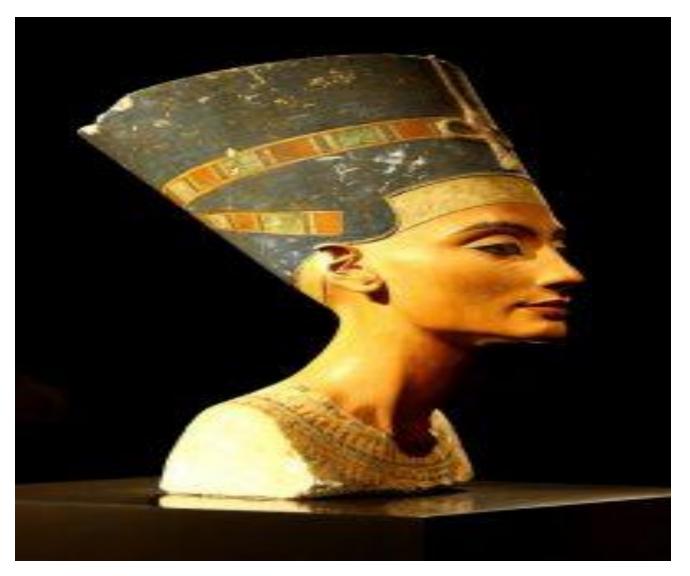
N.B TRAPEZIUS (REVISION)

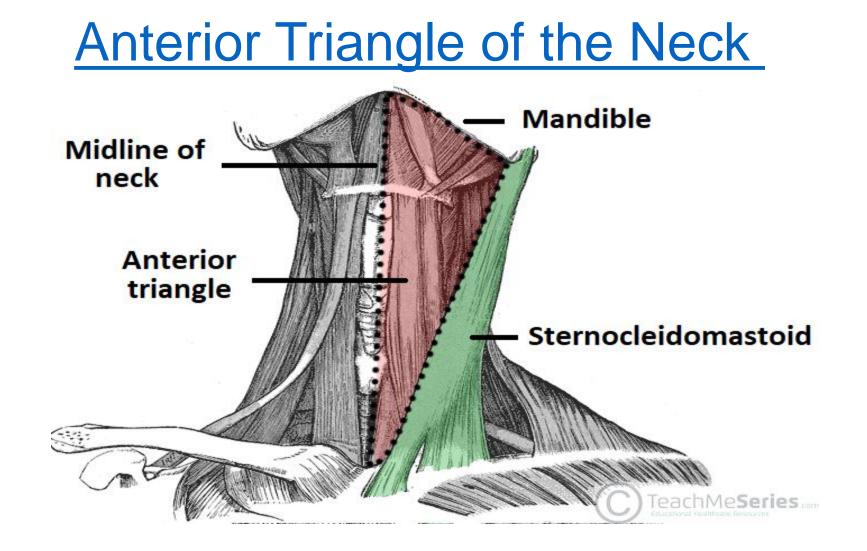
• Origin: External occipital protuberance, medial third of the superior nuchal line, the nuchal ligament, and the spinous process of C7 Insertion: Lateral third of the clavicle and the medial aspect of the acromion process of the scapula Actions: Upward rotation and elevation of the scapula Innervation: Cervical Spinal Accessory Nerve (Cranial nerve XI, C3, C4)

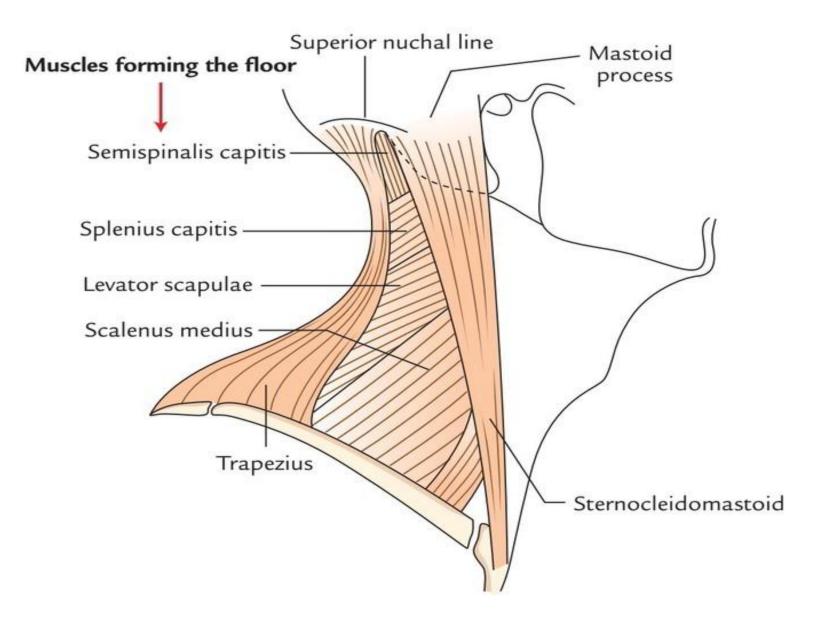
Inferior aspect of the occipital bone. The four chief parts-basilar, two lateral, and squamous-can be seen around the foramen magnum. The main muscular attachments are shown on the left side of



The Nefertiti Neck







POSTERIOR TRIANGLE OF THE NECK

CONTENTS

1.Borders

2.<u>Roof</u>

3.<u>Floor</u>

1. Fascial Carpeting of the Posterior Triangle

2. Clinical Significance

4. Subdivisions

1.

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Important Features of Some of the Contents

Behind the <u>sternocleidomastoid muscle</u>, the triangular space on the side of neck is called the Posterior triangle.

Its **base** downwards in the direction of the <u>clavicle</u>

 and apex is pointed upwards and backwards in the direction of the mastoid process.



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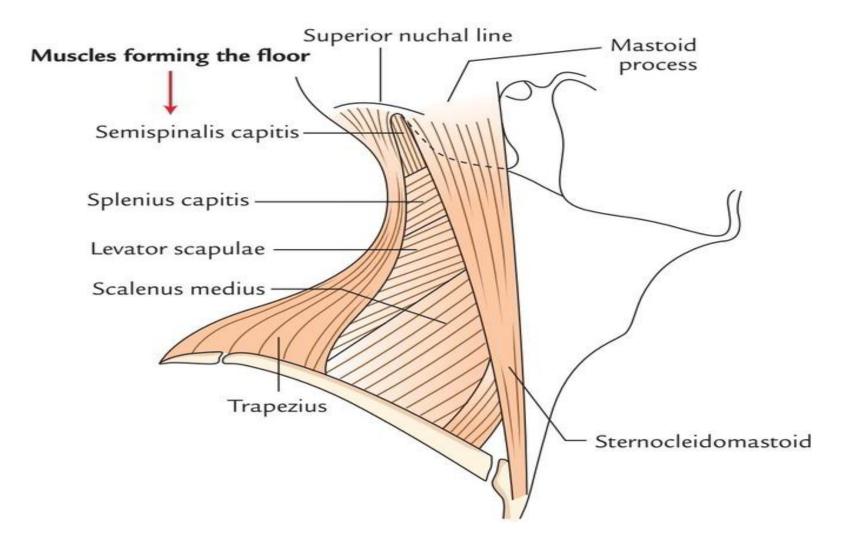
Anterior: Posterior border of sternocleidomastoid muscle

• Posterior: Anterior border of trapezius muscle.

• Inferior (base): Superior aspect of middle third of the clavicle.

Superior (apex): Meeting point
 of <u>sternocleidomastoid</u> and <u>trapezius</u> muscles at the <u>superior</u>

 <u>nuchal line</u> of the <u>occipital bone</u>



Posterior Triangle of the Neck

BOUNDRIES

Anteriorly:

Posterior border of sternomastoid.

Posteriorly:

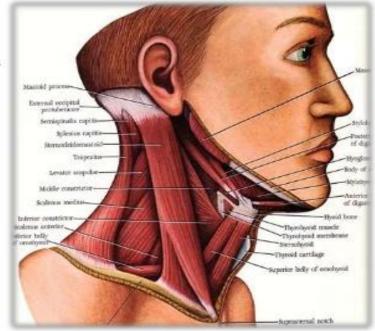
Anterior border of Trapezius.

Base:

Middle 1/3 of the clavicle.

Apex:

Meeting of Trapezius & Sternomastoid.



 It's created by the investing layer of the <u>deep</u> ROOF
 <u>cervical fascia</u>, extending between the

sternocleidomastoid and trapezius muscles.

 The <u>superficial fascia</u> overlying the roof includes <u>platysma</u>, external jugular and posterior jugular veins and cutaneous nerves and vessels. Structures piercing the roof of the posterior triangle are

- 4 cutaneous branches of <u>cervical plexus</u>, viz.
- Lesser occipital nerve (C2).
- Great auricular nerve (C2, C3).
- Transverse cervical nerve (C2, C3).
- <u>Supraclavicular nerves</u> (C3, C4).
- They pierce the roof near the middle of the posterior border of the sternocleidomastoid muscle

 External jugular vein: It starts just below the angle of mandible, runs downwards and backwards crossing the sternocleidomastoid obliquely and under the cover of platysma.