

Muscles of the Back

- Extrinsic muscles
- Intrinsic muscles

Extrinsic Muscles of the Back

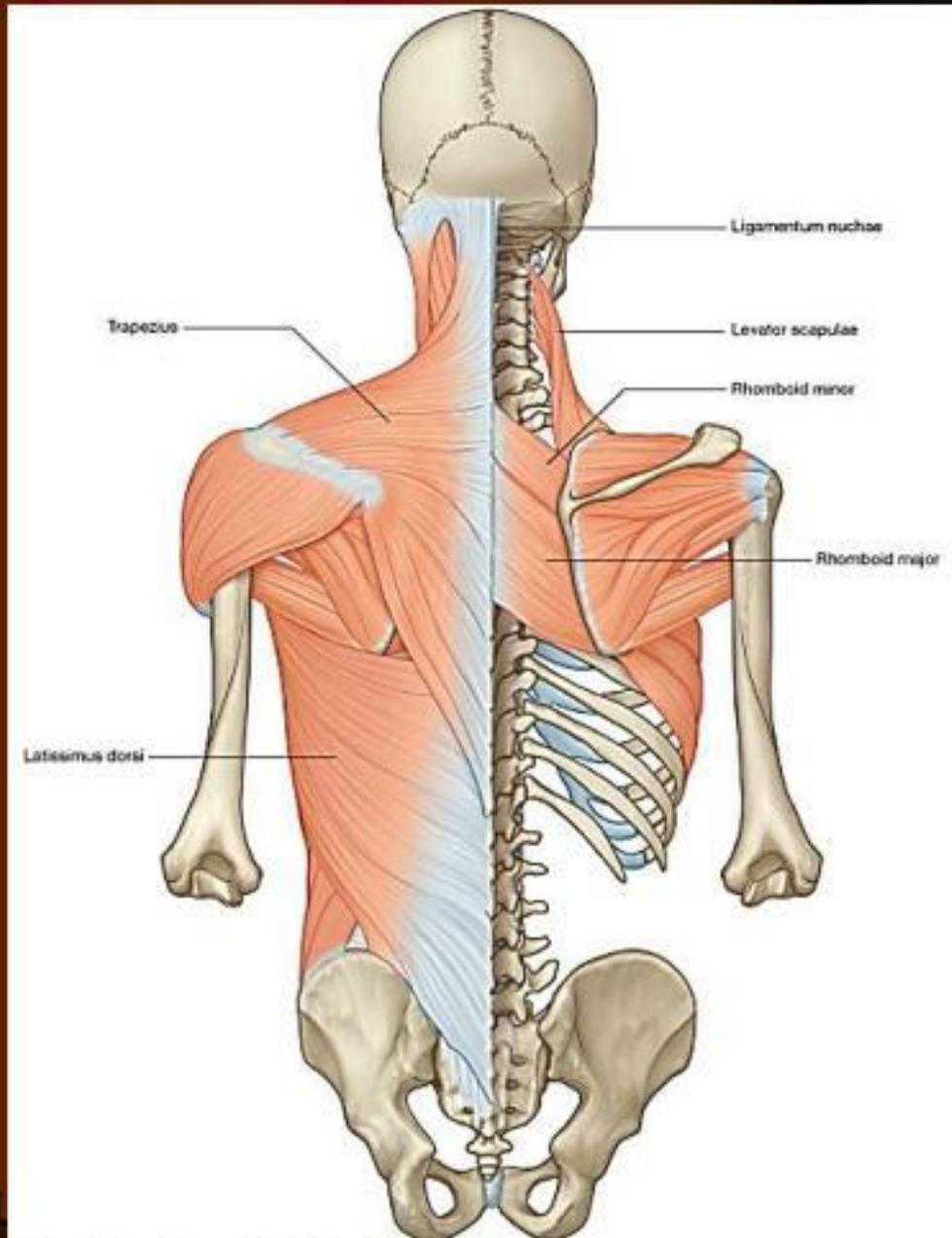
1. Superficial extrinsic back muscles:

- Trapezius
- Latissimus dorsi
- Levator scapulae
- Rhomboids major & minor

They all connect the upper limb to the trunk.

Superficial Extrinsic Back Muscles

Trapezius
Latissimus dorsi
Levator scapulae
Rhomboids major
& minor



Extrinsic Muscles of the Back

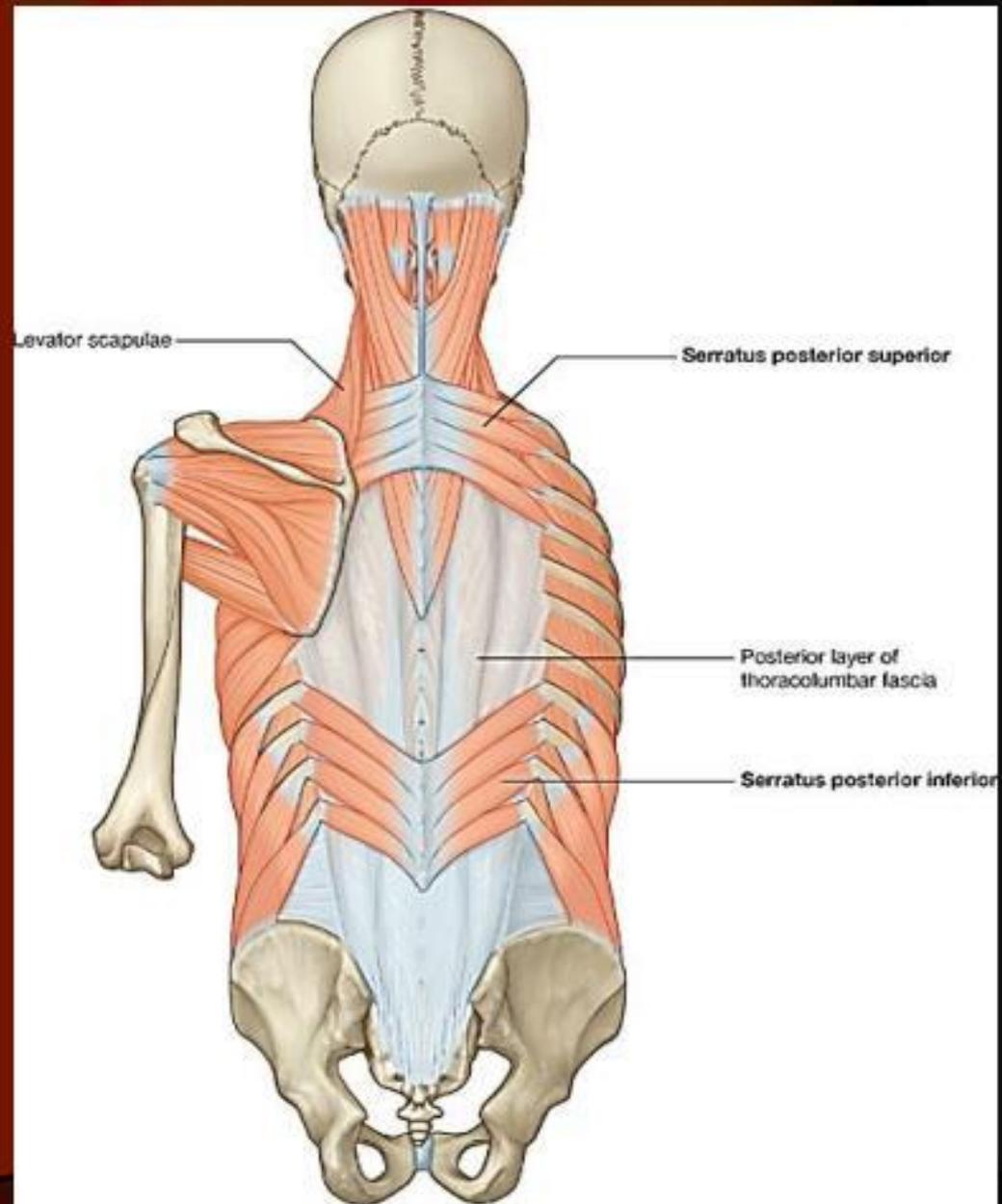
2. Intermediate extrinsic back muscles:

- Serratus posterior superior
- Serratus posterior inferior

They are superficial respiratory muscles and are supplied by intercostal nerves.

Intermediate Extrinsic Back Muscles

Serratus posterior
superior
&
Serratus
posterior inferior



Drake: Gray's Anatomy for Students, 2nd Edition.

Copyright © 2009 by Churchill Livingstone, an Imprint of Elsevier, Inc. All rights reserved.

Intrinsic Muscles of the Back

- Called muscles of the back proper.
- Deep muscles of the back.
- All are supplied by the posterior primary rami of spinal nerves.
- Act to maintain posture and control movement of the vertebral column.

Muscles of the back

Trapezius

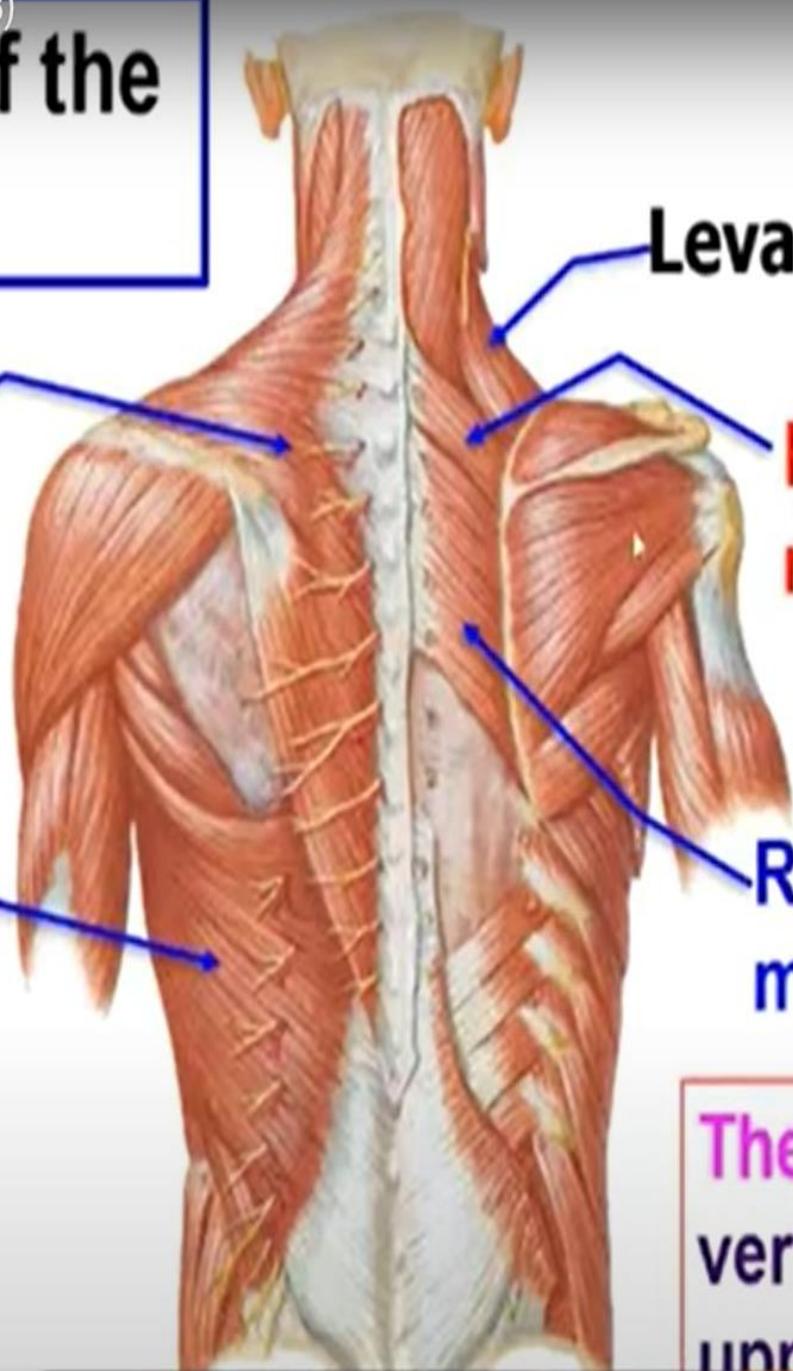
Levator scapula

Rhomboideus minor

Rhomboideus major

Latissimus dorsi

The muscles connect vertebral column with upper limb



Origin



Insertion

• Trapezius شبيه منحرفة

** Origin:

- 1- **Back of the skull**; external occipital protuberance and medial 1/3 of superior nuchal line.
- 2- **Back of the neck**; ligamentum nuchae and spine of the 7th cervical.
- 3- **Back of the thorax**; all thoracic spines.

** Insertion:

- 1- **Upper fibers** into posterior border of the lateral third of the clavicle.
- 2- **Middle fibers** into medial border of the acromion of the scapula.
- 3- **Lower fibers** into upper lip of the spine

Of the scapula

**** Nerve supply (double)**

Trapezius

- 1- **Motor**; spinal part of accessory nerve.
- 2- **Sensory** (Proprioceptive sensation) from the cervical plexus.

**** Actions:**

1. **Upper fibers** elevate the scapula.
2. **Middle fibers** retract the scapula.
3. **Lower fibers** Depress the scapula.
4. **Middle and lower fibers** Abduction of the arm more than 90 degree (with lower 5 digitations of the serratus anterior).

N.B; It is the **only muscle of upper limb**

a- Arises from the skull.

b- Not supplied by the brachial plexus.

- **Wasting of the muscles leading to loss the normal lateral slope of the neck with drop shoulder on affected side**



Latissimus Dorsi

Origin

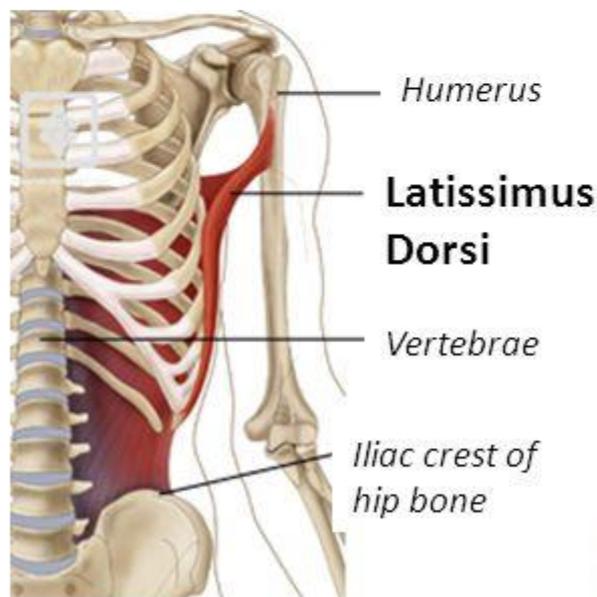
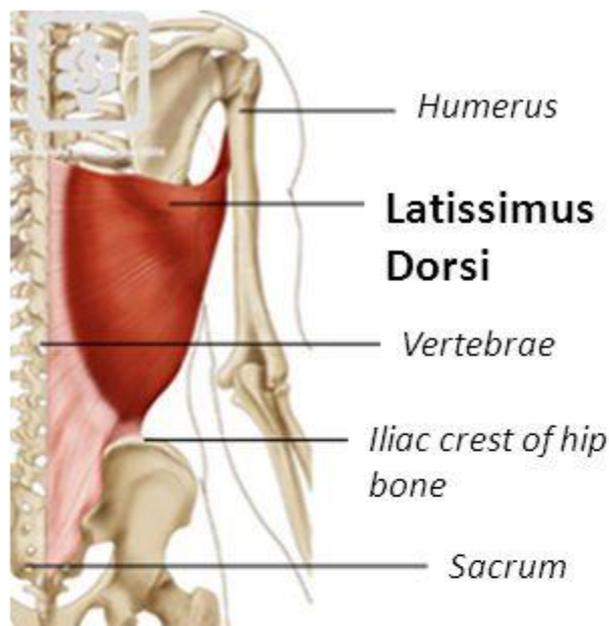
- thoracolumbar aponeurosis
- lower 6 thoracic spinous processes
- sacrum and iliac crest
- lower 3 to 4 ribs
- inferior angle of scapula

Insertion

- bicipital groove of humerus

Action

- extension
- medial rotation of humerus
- adduction of humerus



[Menu](#)



- **Latissimus Dorsi**

- ❖ **** Nerve supply:** nerve to latissimus dorsi (thoracodorsal nerve) from posterior cord.
- ❖ **** Actions:**
- ❖ Adduction, extension and medial rotation of the arm (as teres major) **Used in Swimming**
- ❖ It pulls the trunk towards the arm used in **climbing and Gymnastics** with pectoralis major.
- ❖ It assists in deep expiration (**cough**).



- ❖ **The only muscles of upper limb has pelvic attachment**
- ❖ **Accessory muscle of expiration**
- ❖ **It has triple relations to teres major (it lies behind, below and finally in front)**



• Levator Scapulae

**** Origin:** transverse processes of C1-C4

**** Insertion,** dorsal surface of medial border of scapula from superior angle to the spine.

**** Nerve supply (double):**

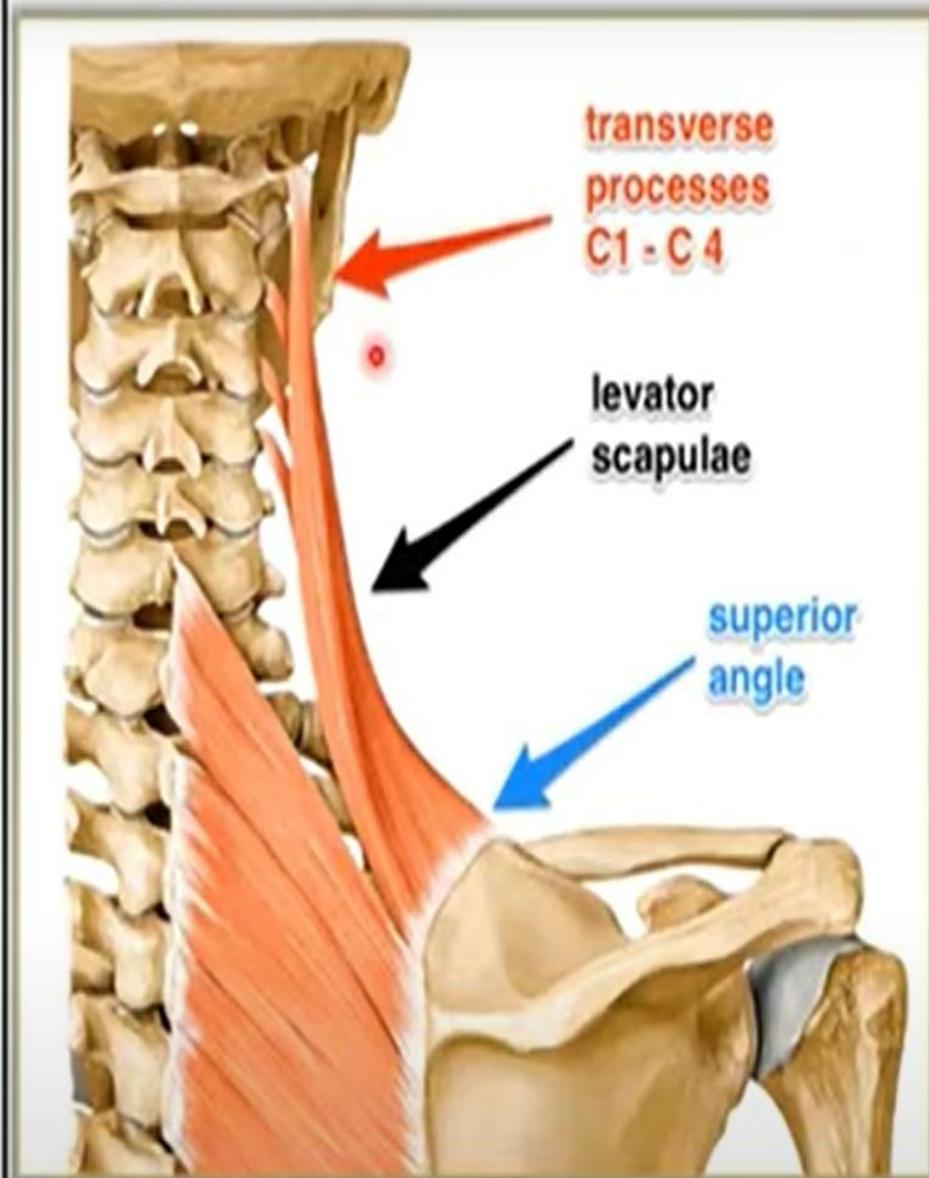
a- Dorsal scapular nerve (nerve to rhomboideus C5).

b- Nerve to levator scapulae from cervical plexus (C3&4)

**** Actions:**

1- Elevates the scapula.

2- Tilts the neck to the same side when shoulder is fixed.



• **Rhomboideus Minor**

** **Origin:** From the lower part of the ligamentum nuchae, spines of **C7 - T1**.

** **Insertion:** dorsal aspect of medial border of scapula opposite root of spine.

• **Rhomboideus Major**

** **Origin:** thoracic spines of **T 2, 3, 4, 5**.

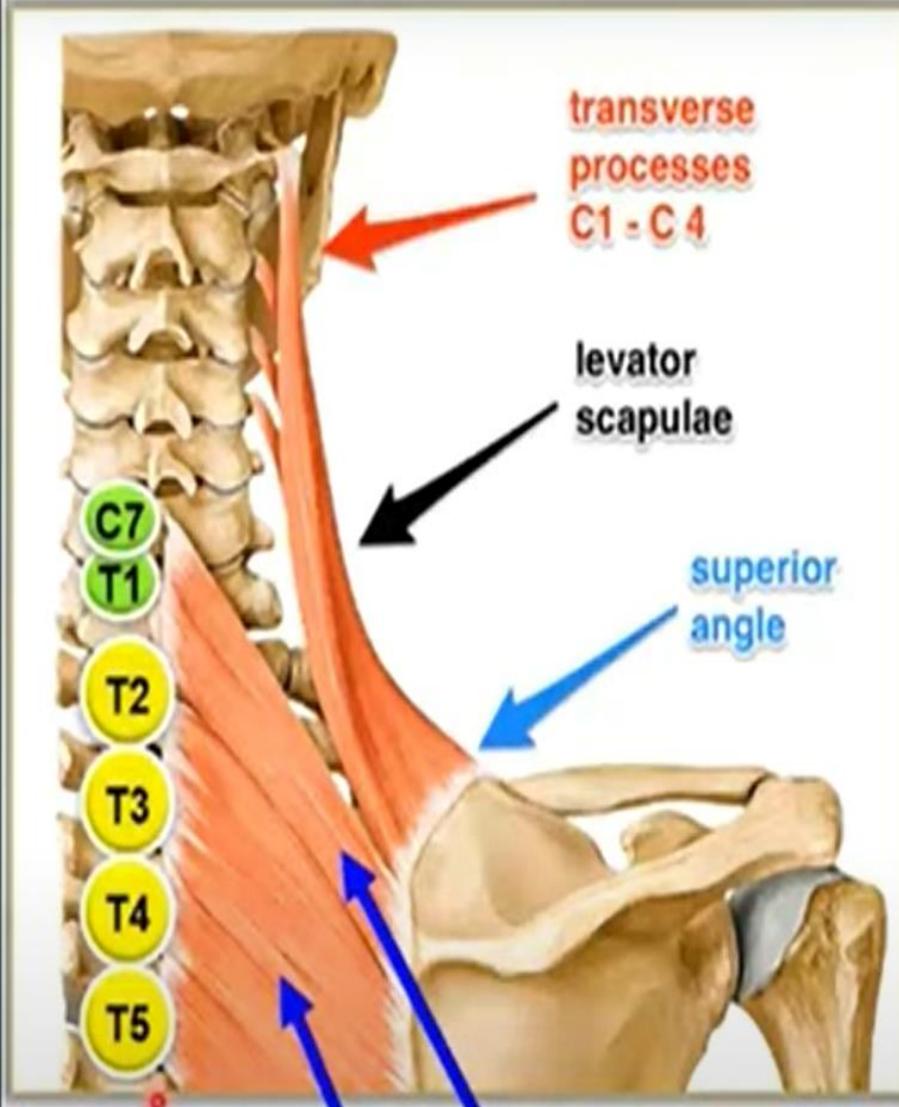
** **Insertion;** dorsal aspect of medial border of scapula from spine to inferior angle.

• **Nerve supply**

- **Dorsal scapular nerve** (nerve to rhomboideus C5).

• **Action of Rhomboideus Minor and major**

Retraction of the scapula



Rh Major

Rh Minor

SUBOCCIPITAL TRIANGLE:

These are a pair of muscular triangles situated on each side of the midline in the suboccipital region.

BOUNDARIES:

Supero-medially :

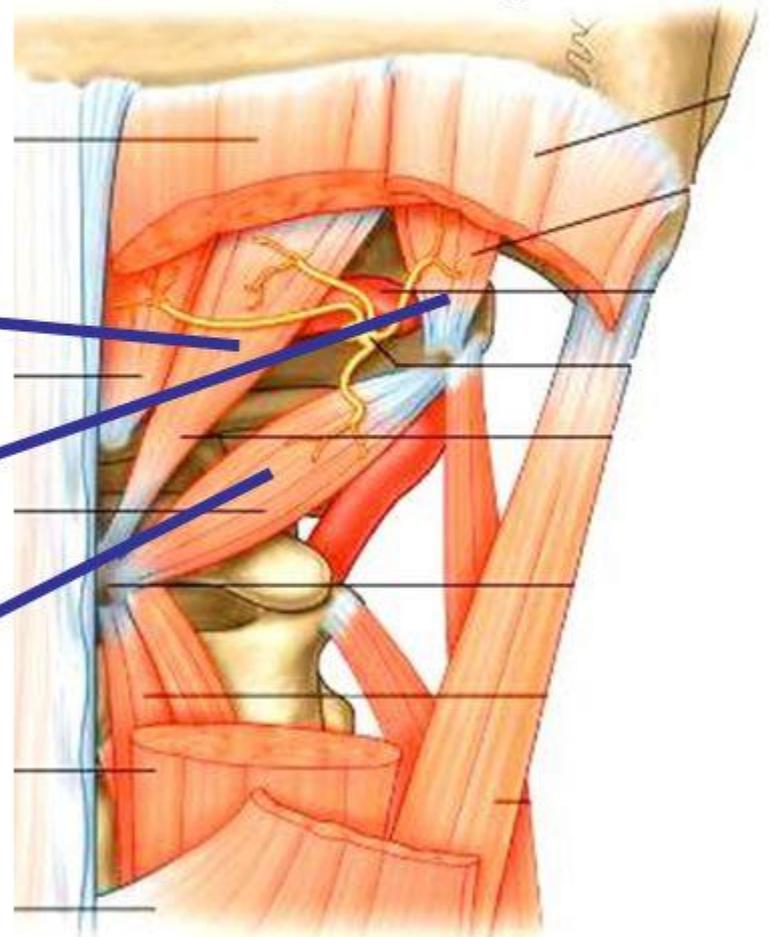
Rectus capitis posterior major

Supero-laterally :

Obliquus capitis superior

Inferiorly :

Obliquus capitis inferior



SUBOCCIPITAL TRIANGLE

Chapter 5 - Muscles of the back (group B)
Upward and medial

Boundaries

Rectus capitis posterior minor

Rectus capitis posterior major

Semispinalis capitis

Splenius capitis

Roof

Upward and lateral

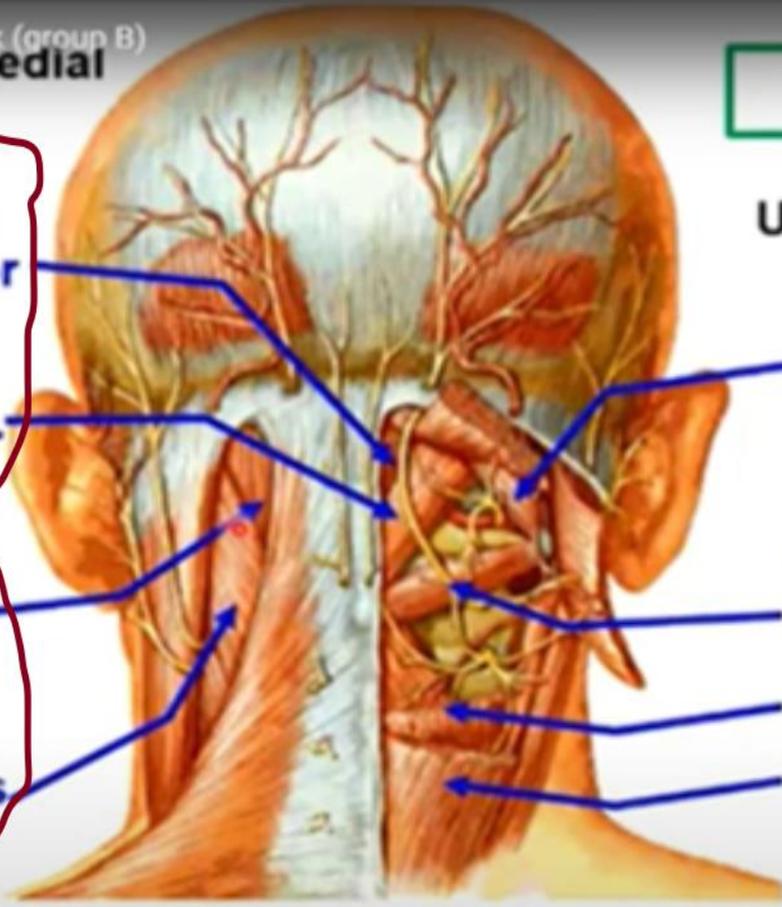
Oblique capitis superior

Inferior

Oblique capitis inferior

Semispinalis capitis

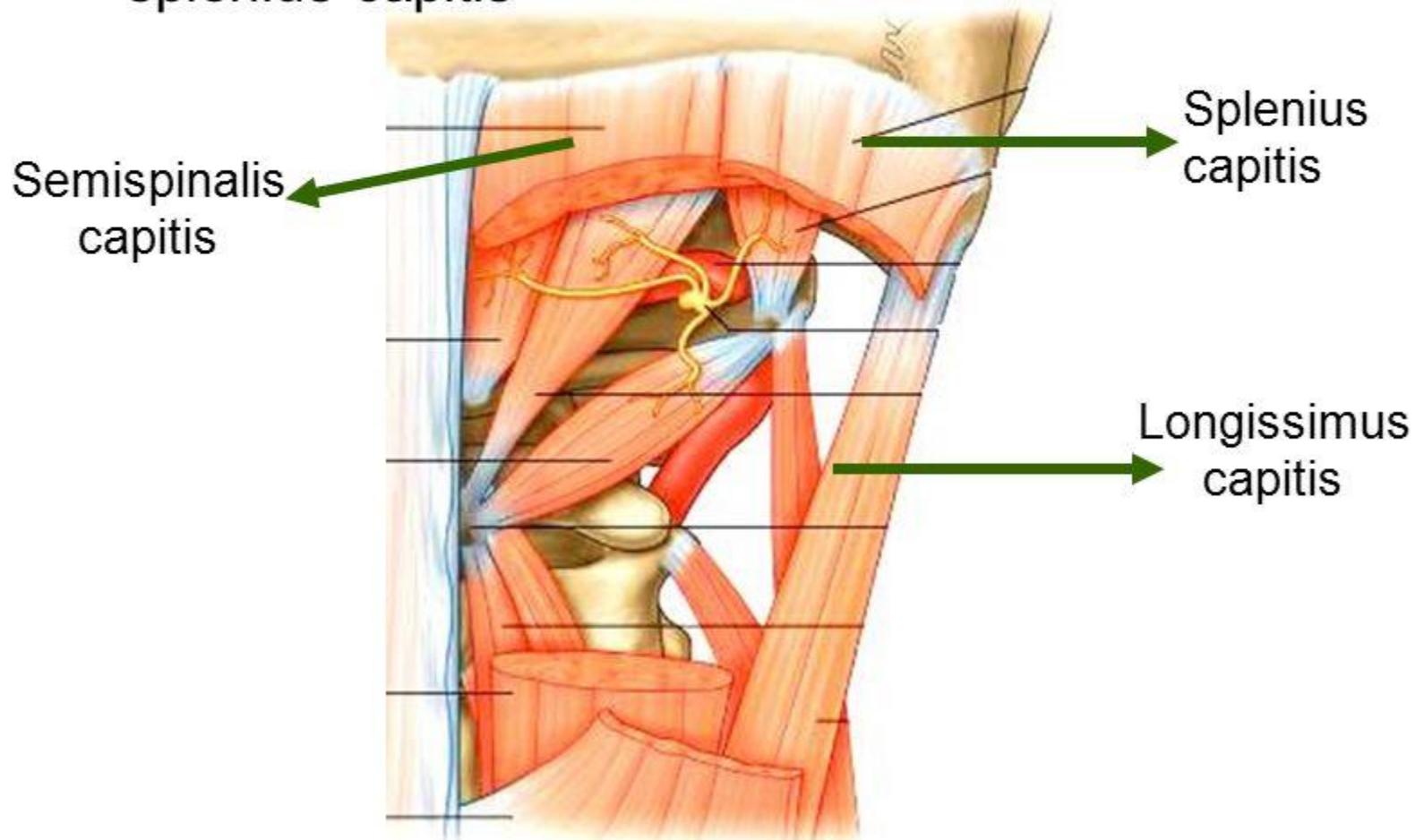
Splenius capitis



Roof:

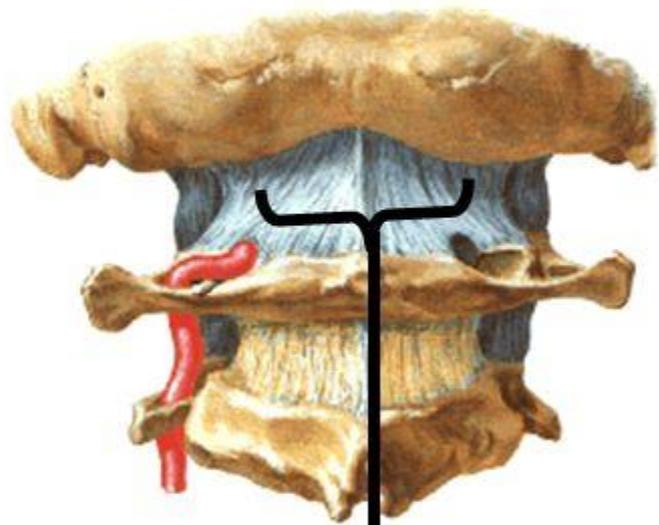
Medially : Dense fibrous tissue covered by the semispinalis capitis

Laterally : By the longissimus capitis and occasionally the splenius capitis

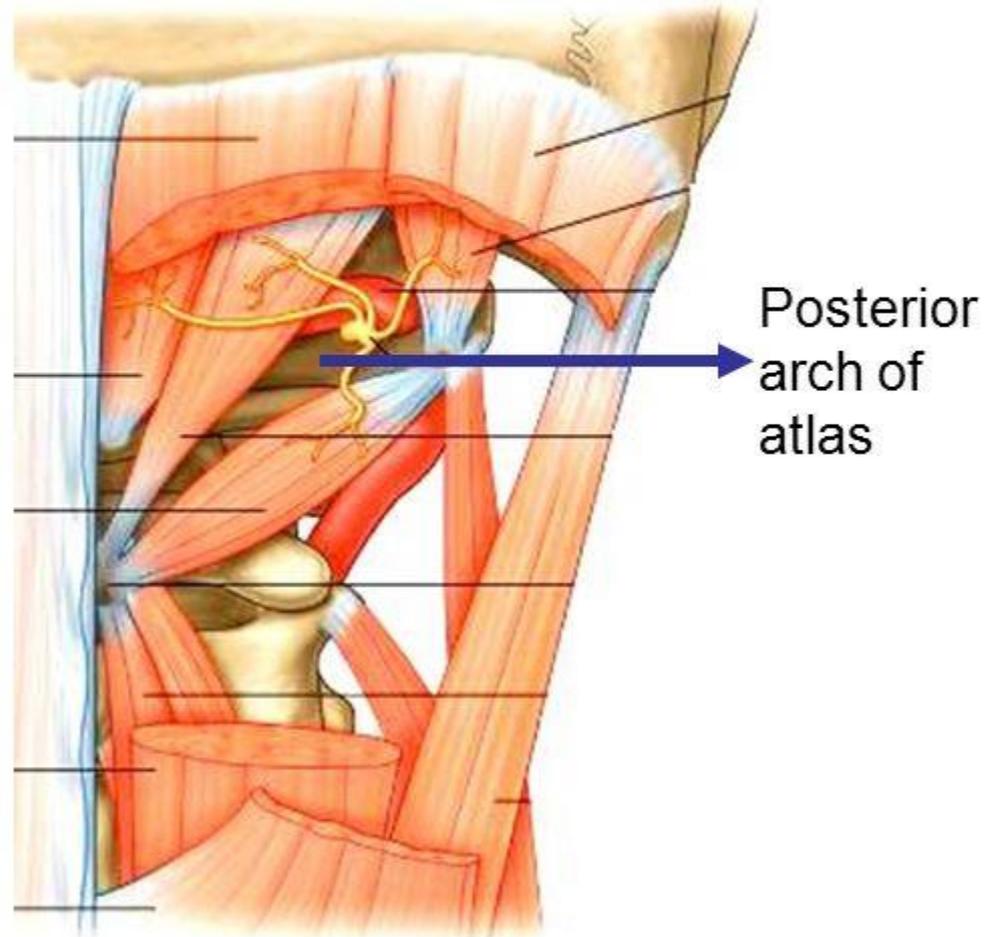


FLOOR:

Formed by the posterior arch of atlas and posterior atlanto-occipital membrane



Posterior atlanto-occipital membrane



Contents:

- Third part of vertebral artery
- First cervical nerve (suboccipital nerve)
- Suboccipital plexus of veins

