

**The University of Jordan
Faculty Of Medicine
Anatomy Department**



Muscles of the upper limb

By

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Learning Objectives

- 1- Identify different Muscles group of upper limb.
- 2-Identify attachment of muscles of pectoral region
- 3-Know nerve supply and action of pectoral muscles

Muscle Groups

- 1- Muscles connecting Upper Limb with Thoracic Wall (**Muscles of pectoral region**)
- 2- Muscles connecting Upper Limb with Vertebral column (**Back muscles**)
- 3- Muscles connecting Scapula with Humerus (**Muscles of shoulder region**)
- 4- Muscles of The arm (Anterior & Posterior)
- 5- Muscles of The Forearm (Anterior & Posterior)
- 6- Muscles of Hand




Muscles connecting Upper Limb with Thoracic Wall

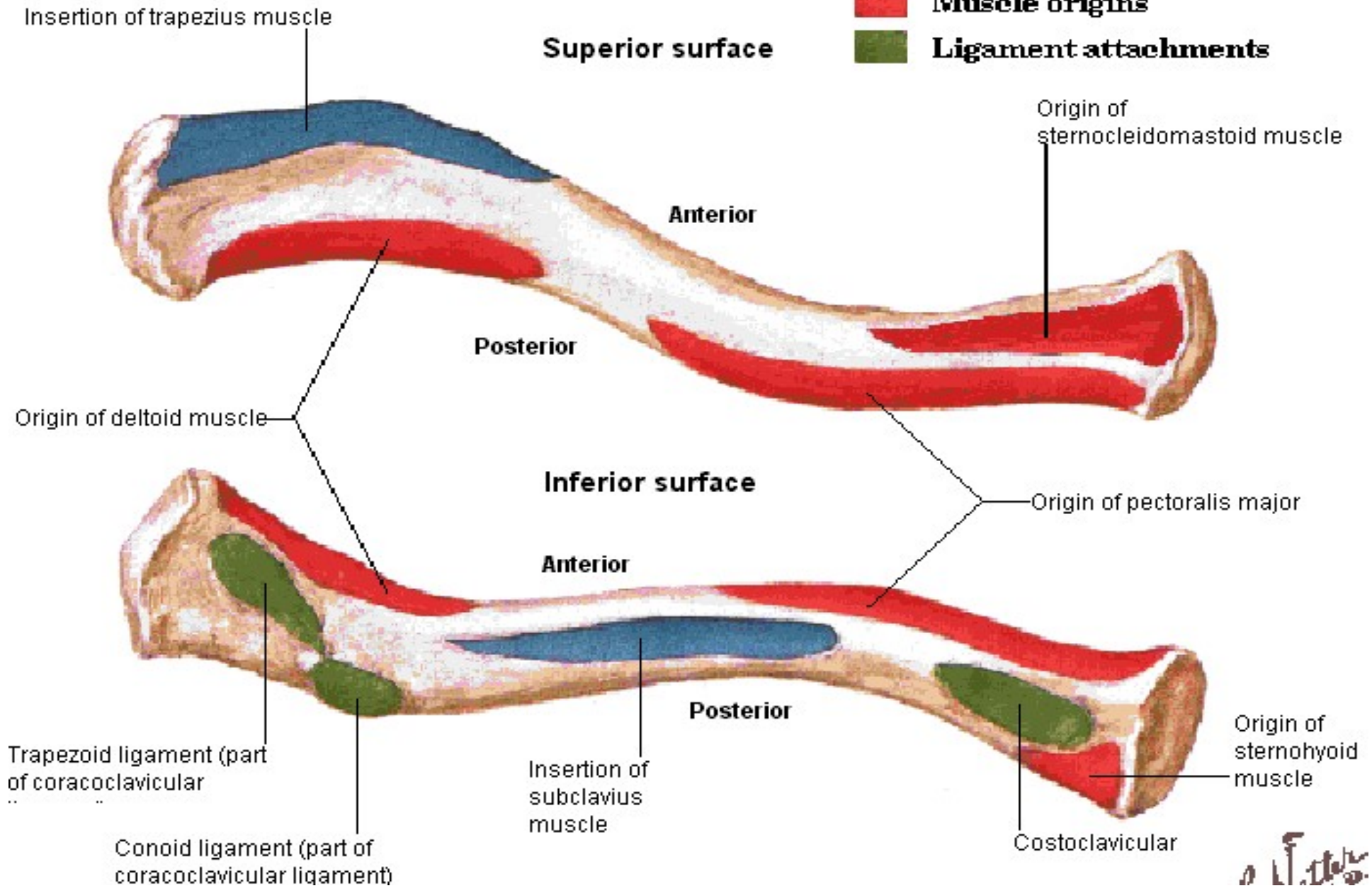
Muscles of the pectoral region

- 1-Pectoralis Major
- 2-Pectoralis minor
- 3-Serratus anterior
- 4-Subclavius

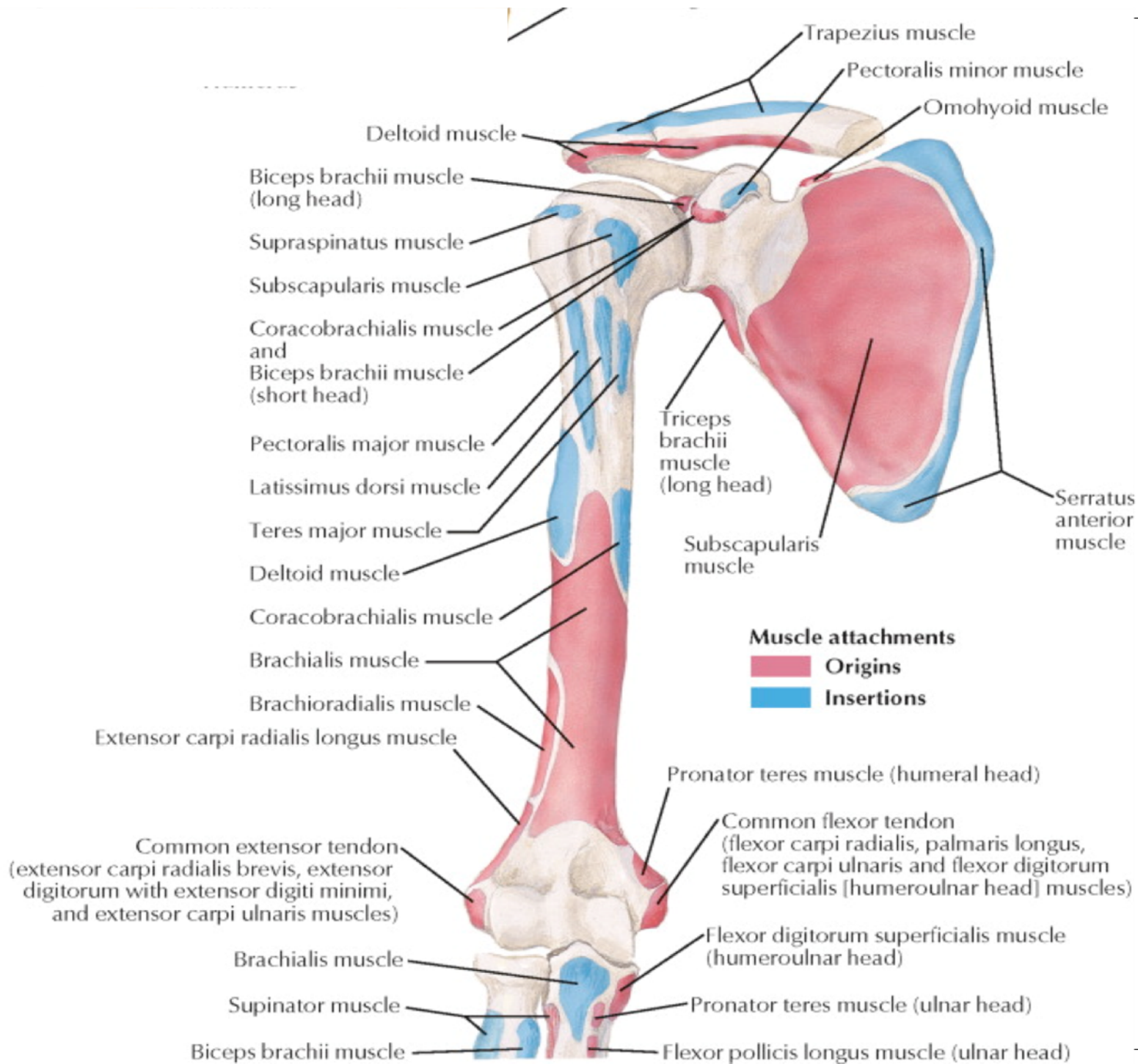
Right Clavicle - Muscle Attachments

Snapped with HyperSnap-DX
<http://www.hyperionics.com>

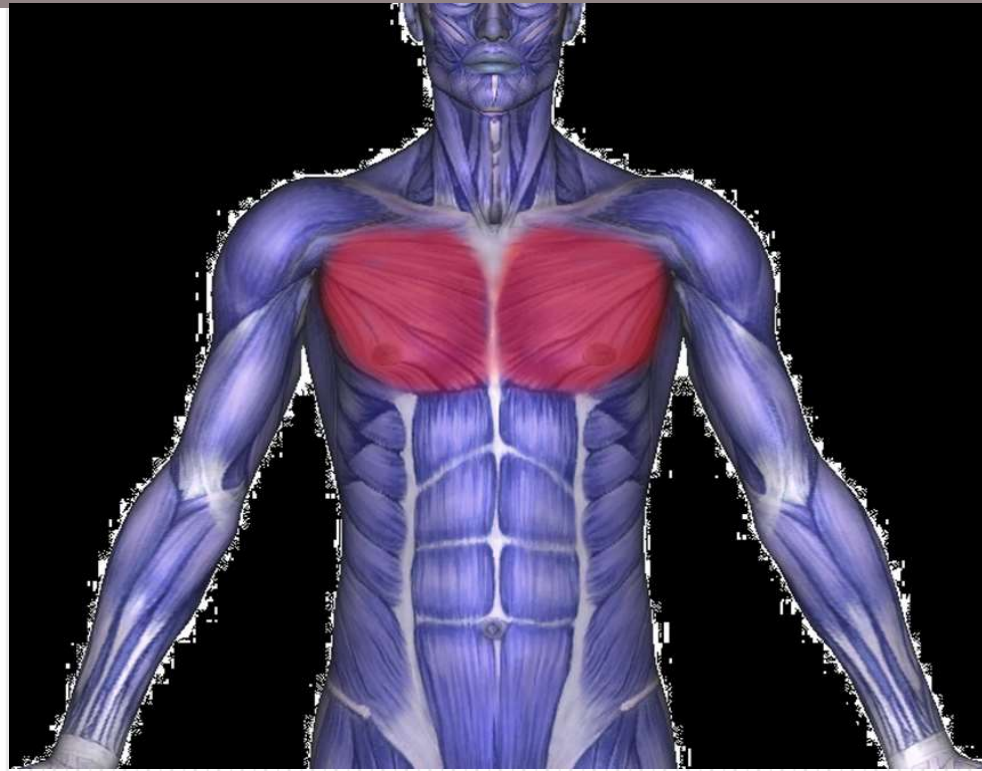
-  **Muscle insertions**
-  **Muscle origins**
-  **Ligament attachments**



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Pectoralis Major



Origin

Clavicular head:

Anterior border of medial 2/3 of clavicle.

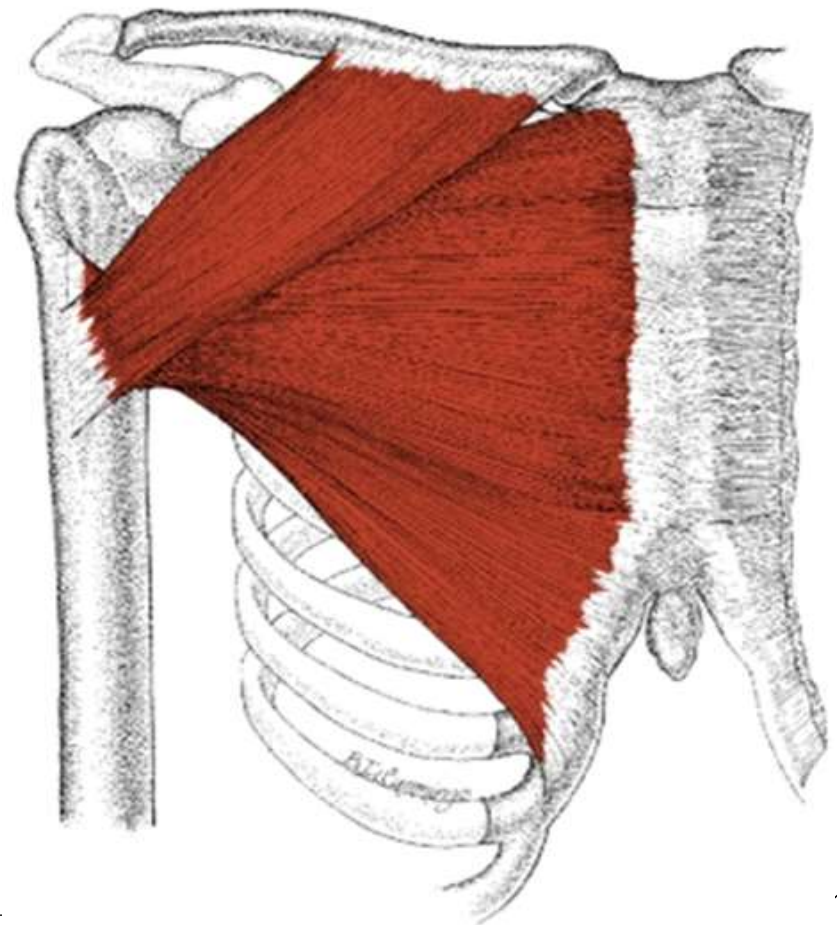
Sternocostal head:

- Anterior surface of the sternum.
- The upper 6 costal cartilages.

Insertion

Lateral lip of the bicipital groove .

Pectoralis Major



Nerve supply:

Medial and lateral pectoral nerves

Action:

1-Adduction and medial rotation of the arm.

2- flexion of the arm.

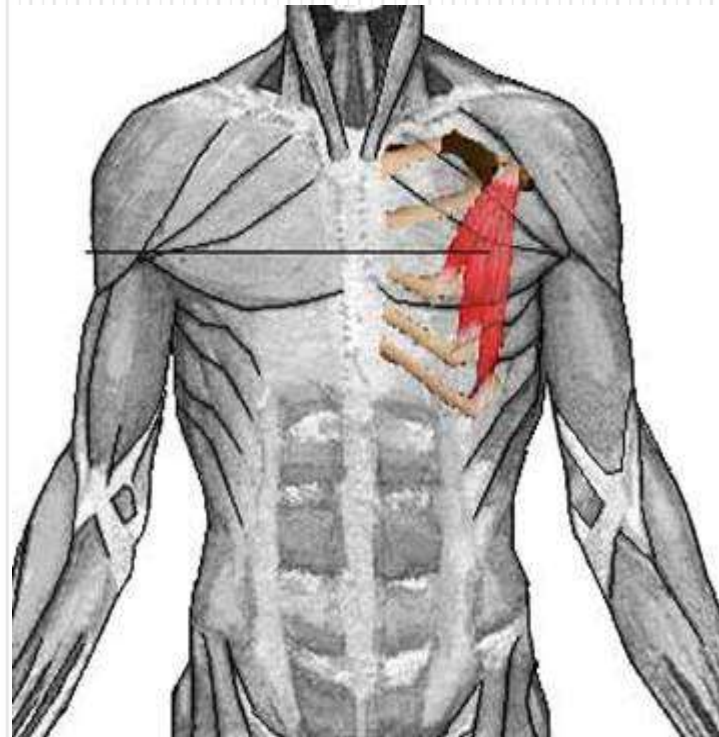
3-The sternocostal head, with the arm raised and fixed, can raise the trunk as in climbing



All Muscles Attached to Bicipital groove

**Adduct and Medially rotates the
Arm**

Pectoralis Minor



Origin

From outer surfaces of 3rd , 4th and 5th ribs close to their costal cartilages

Insertion

Coracoid process of the scapula.



Nerve supply:

Medial pectoral nerve

Action:

- Protraction of the scapula.
- Depresses the shoulder
- If the scapula is fixed, it elevates the ribs



Serratus Anterior

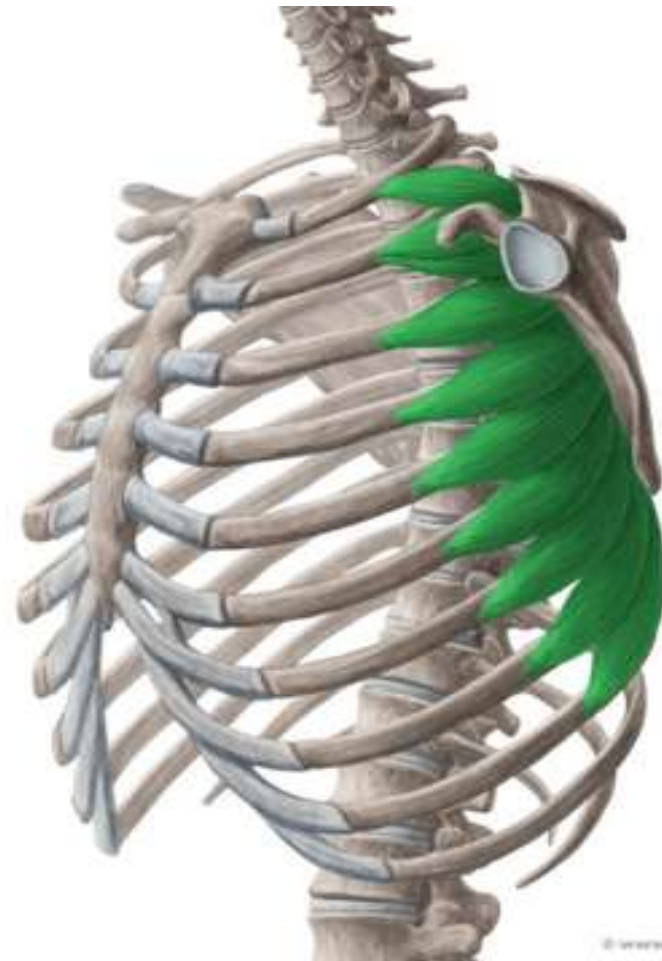
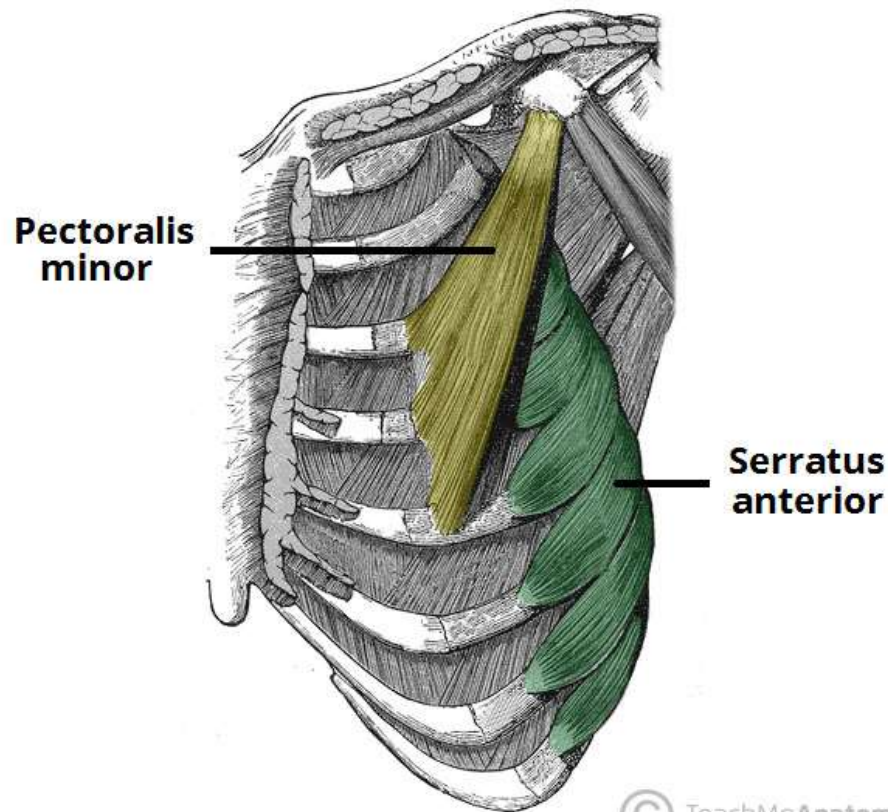


Origin

From Outer surfaces of the upper 8 ribs.

Insertion

Ventral lip of the medial border of the scapula.

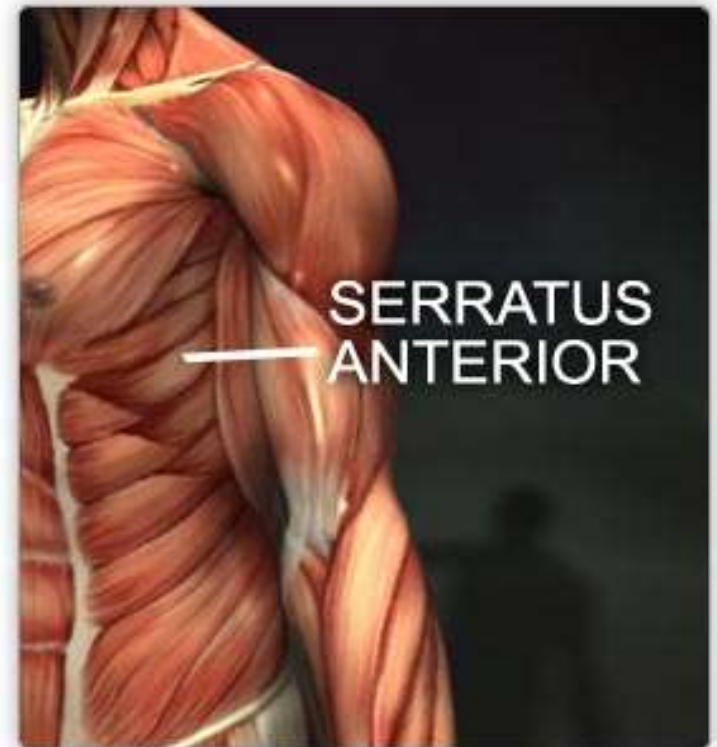
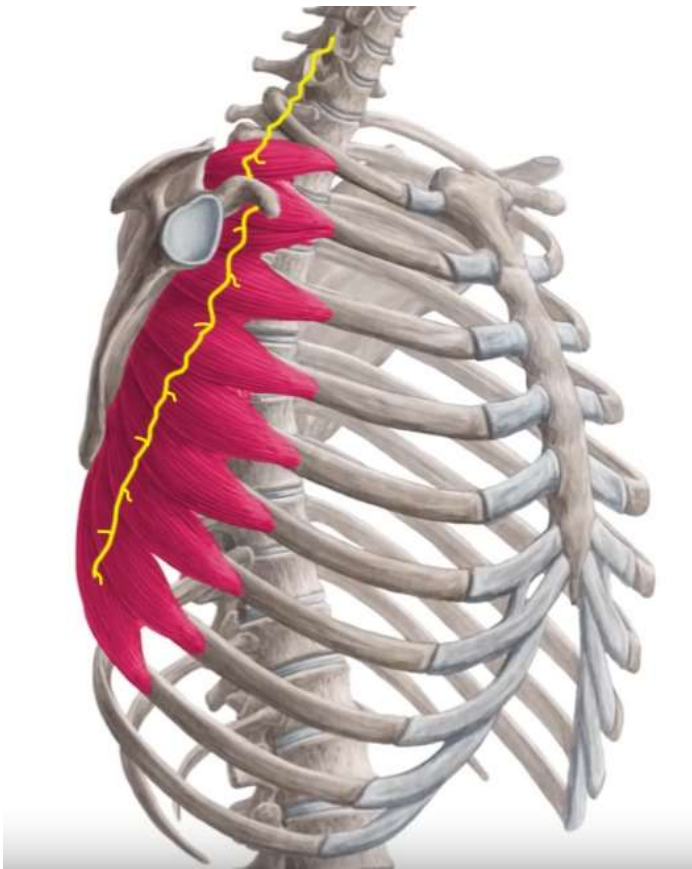


Nerve supply:

Nerve to serratus anterior (long thoracic nerve)

Action:

- Protraction of the scapula.
- Rotate the scapula upward during raising the arm above the head.



Serratus anterior Paralysis



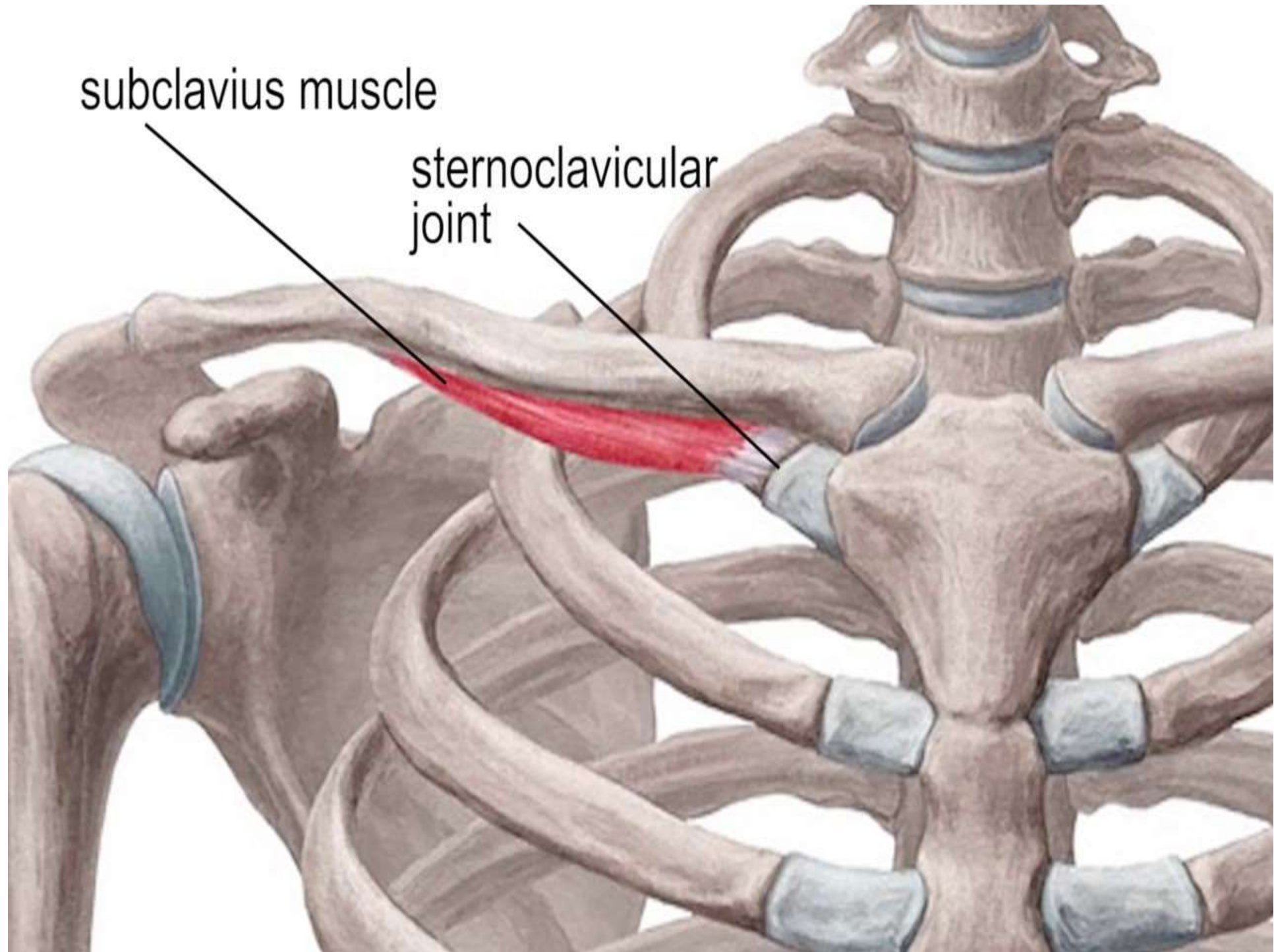
Winging of Scapula

Subclavius Muscle



subclavius muscle

sternoclavicular joint



Nerve supply:

Nerve to subclavius from upper trunk of brachial plexus

Action:

Depresses the clavicle

Steadies the clavicle during movements of the shoulder girdle

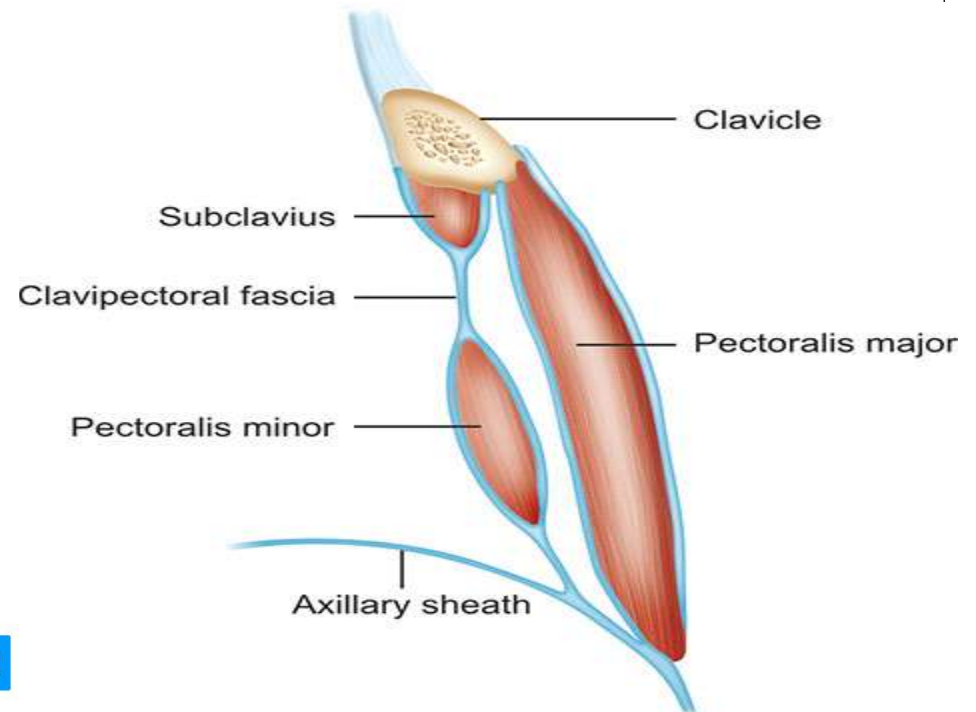
Clavipectoral Fascia

The clavipectoral fascia is a strong sheet of connective tissue

Attachment :

Above to the clavicle

Below it splits to enclose the pectoralis minor muscle and then continues downward as the **suspensory ligament of the axilla**



	Origin	Insertion	Nerve Supply	Action
Pectoralis major				
Pectoralis minor				
Serratus anterior				
Subclavius				

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Muscles connecting Upper Limb with Vertebral column

By

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Muscles connecting Upper Limb with Vertebral column

**Clinical Anatomy by Regions 9th ed. - R. Snell (Lippincott,2012) chapter 9 /
page 349**

Learning Objectives

- 1-Identify Muscles connecting Upper Limb with Vertebral column
- 2-Know attachment of Back Muscles
- 3- Identify nerve supply and action of back muscles

Layers of The Back Muscles

The first (Superficial) layer




- 1- Trapezius
- 2- Latissimus Dorsi

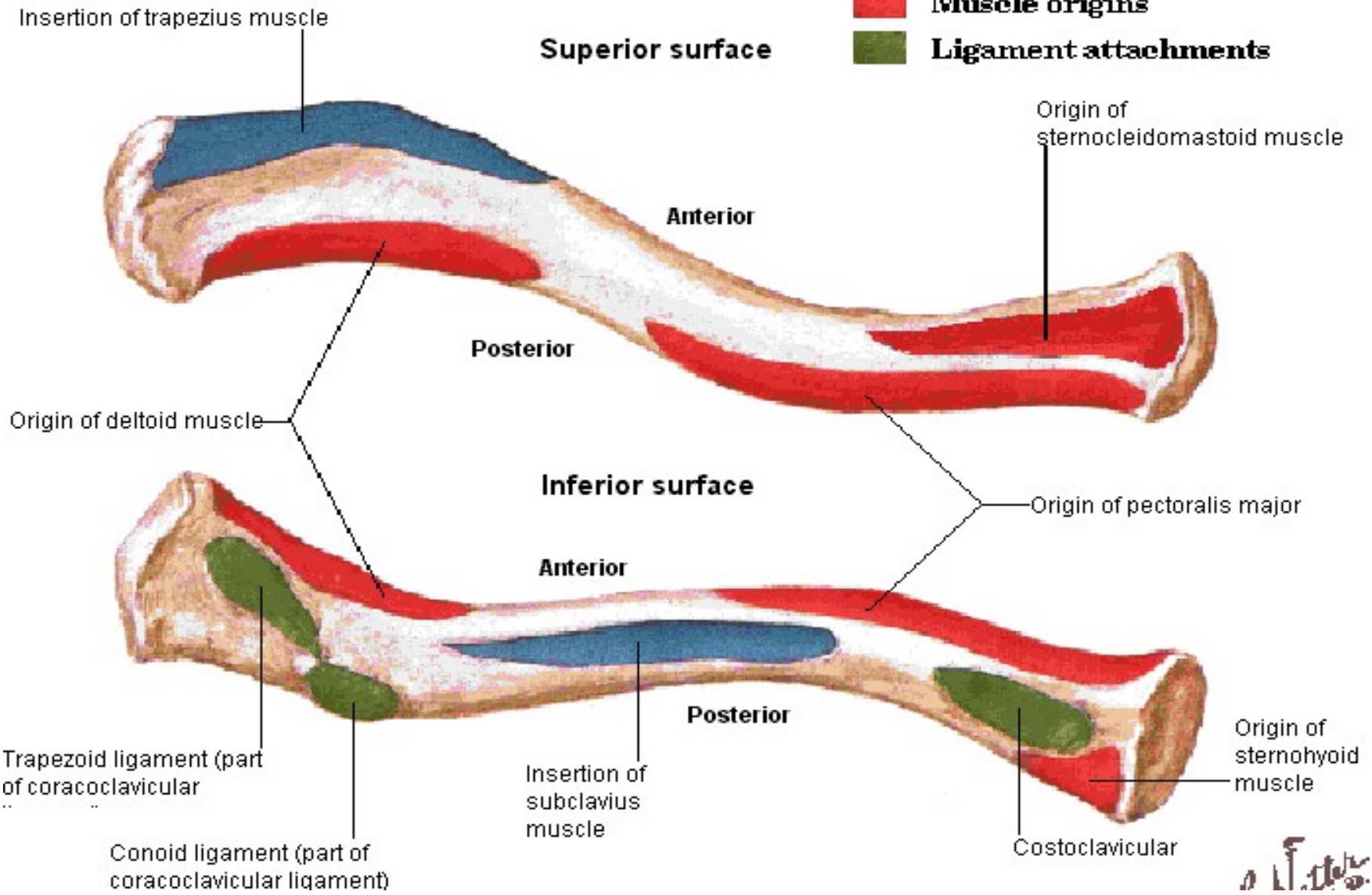
The second(deep) layer

- 3- Levator Scapula
- 4- Rhomboids Minor
- 5- Rhomboids major

Right Clavicle - Muscle Attachments

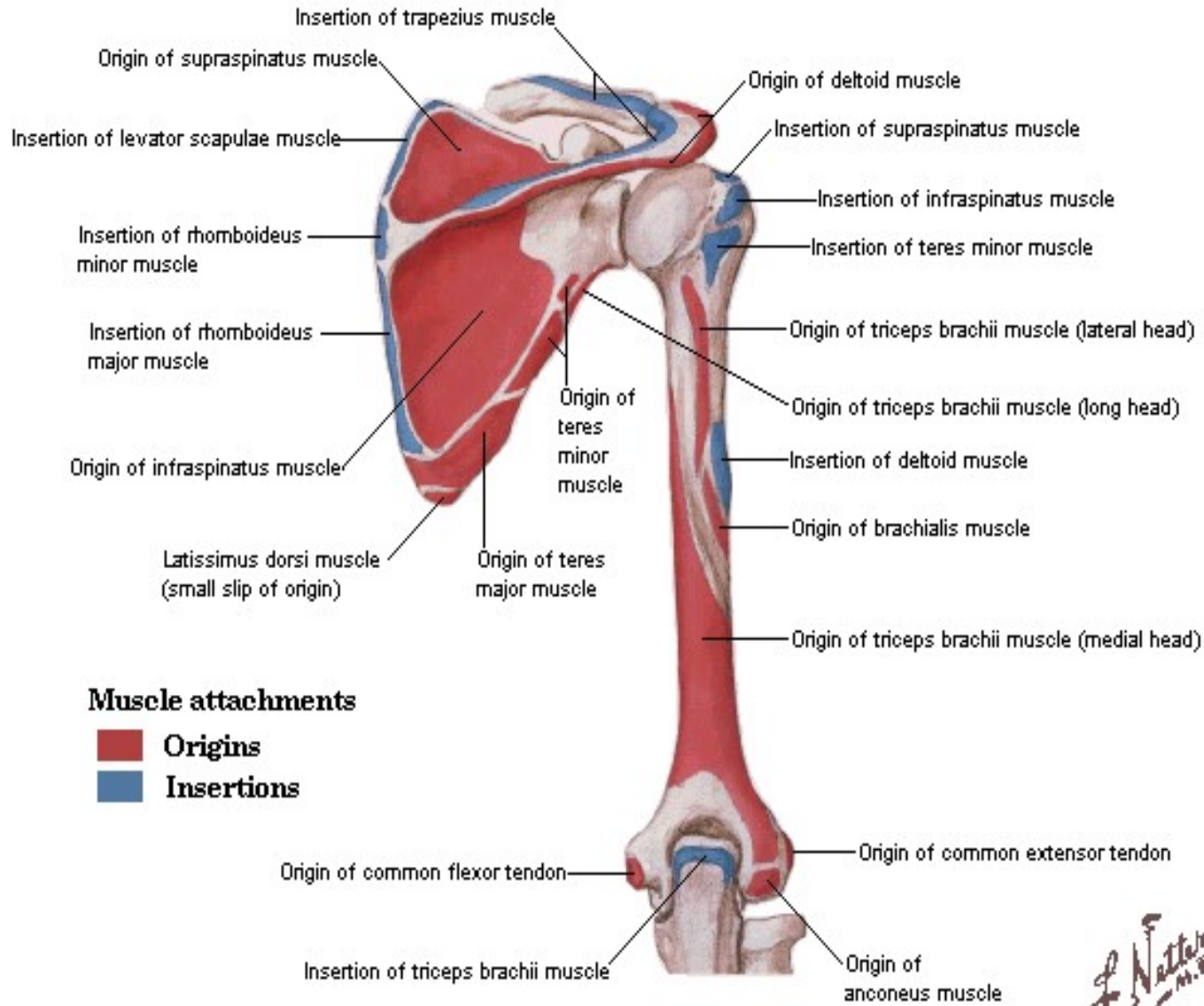
Snapped with HyperSnap-DX
<http://www.hyperionics.com>

-  **Muscle insertions**
-  **Muscle origins**
-  **Ligament attachments**



Humerus and Scapula

Posterior View - Muscle Attachments

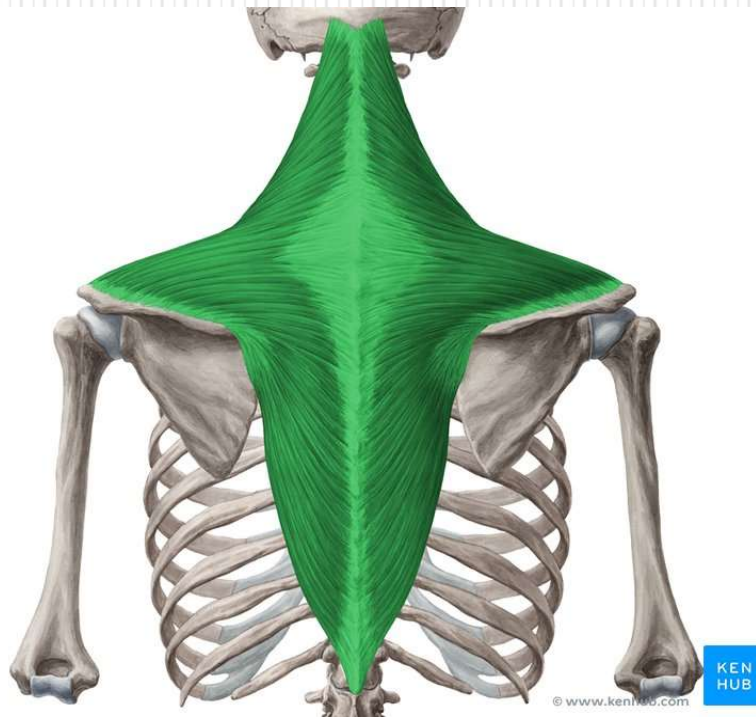


Muscle attachments

- Origins
- Insertions

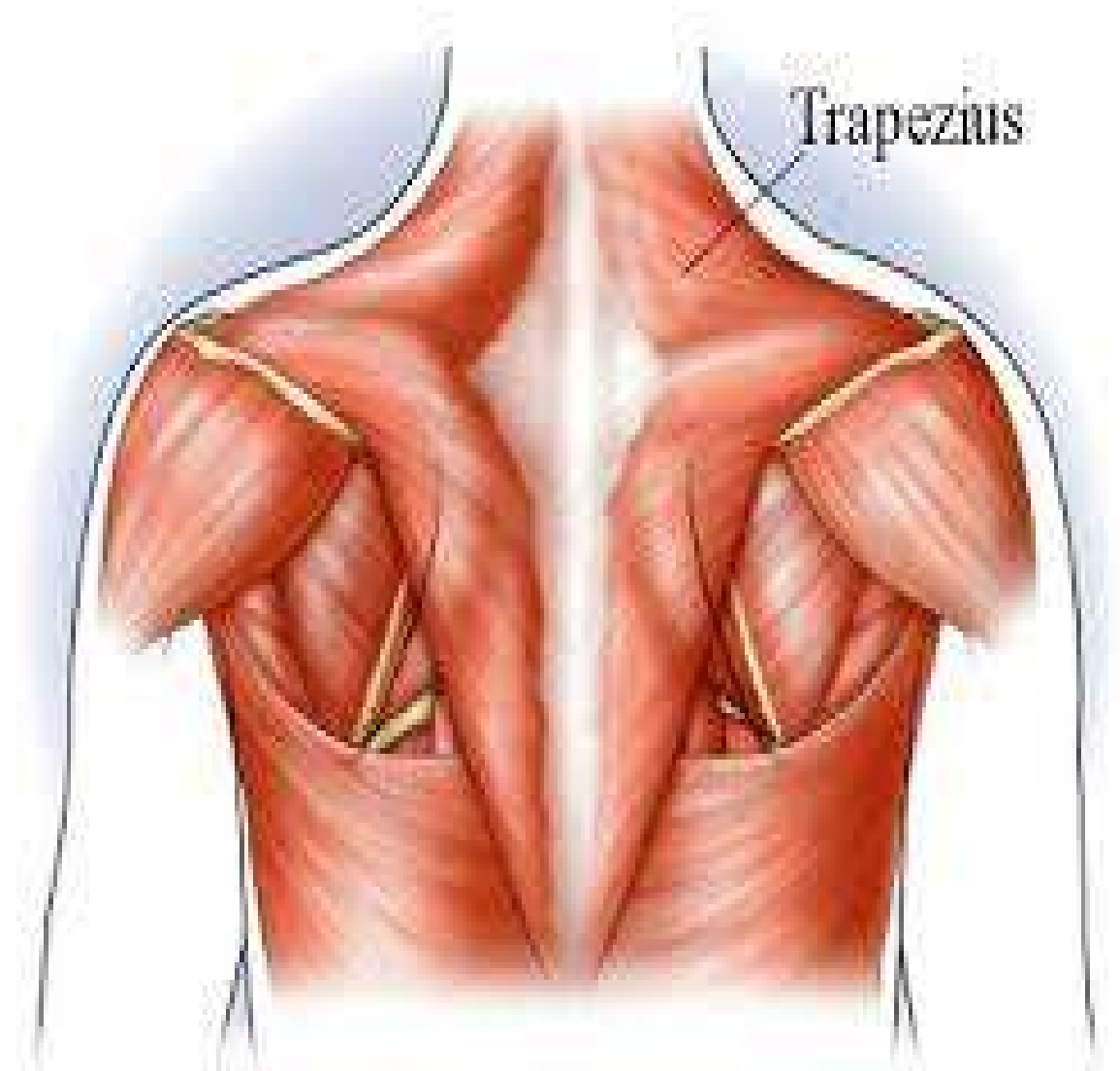
F. Netter M.D.
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Trapezius





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Origin

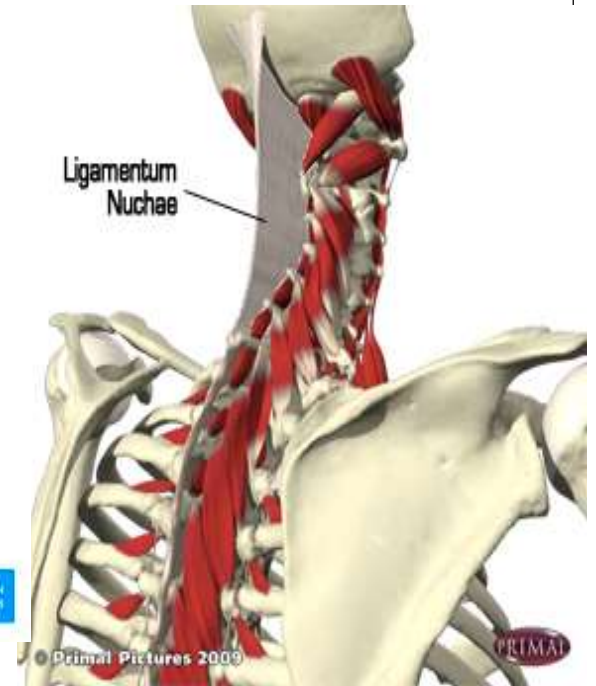
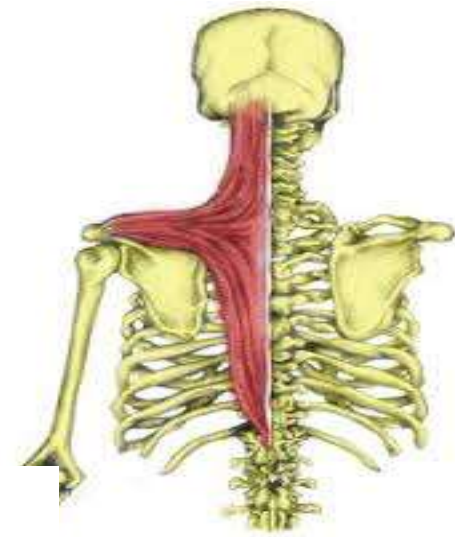
- ❖ External occipital protuberance
- ❖ Ligamentum Nuchae
- ❖ All the thoracic spines



External occipital protuberance



Ligamentum Nuchae



Insertion :

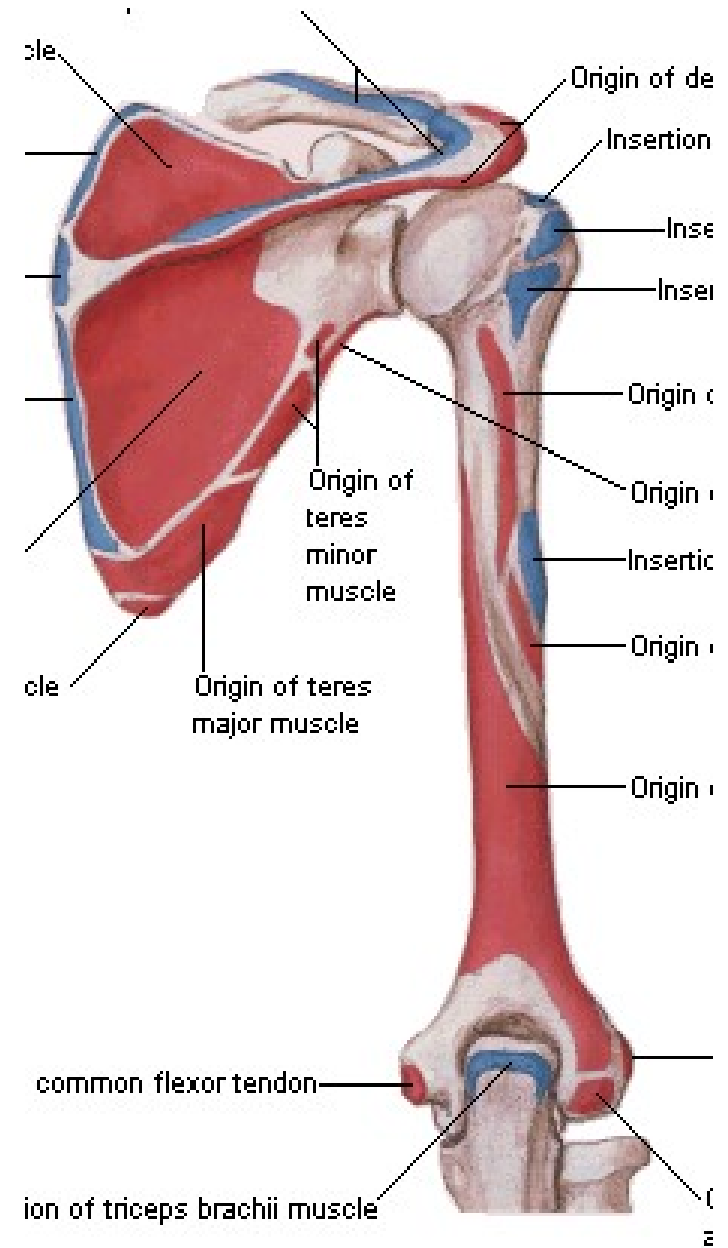
- Posterior border of lateral third of the clavicle and scapula
- Medial border of acromion
- Upper border of spine

Nerve supply:

Spinal accessory N

Action

Elevates , retracts and **rotates** the scapula

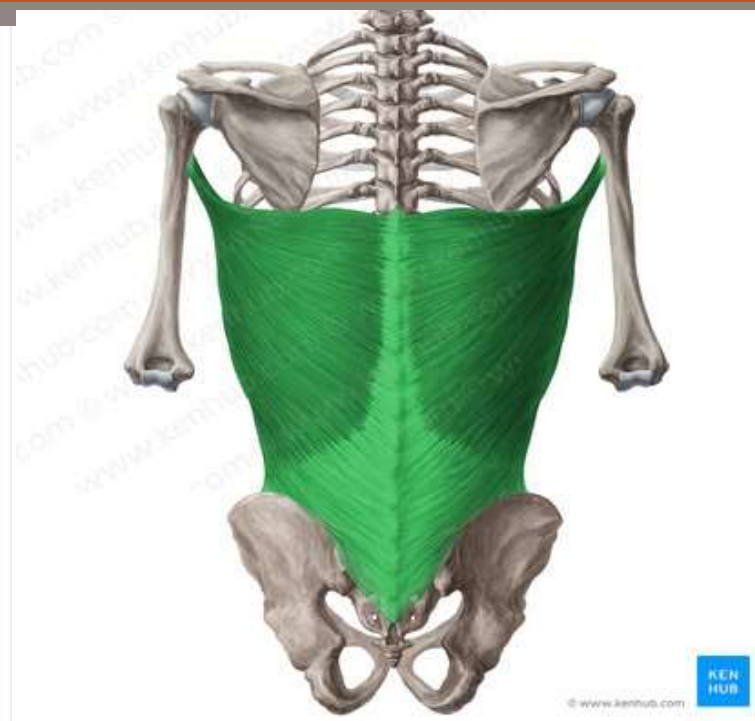




Paralysis of Trapezius

Dropping of the shoulder and can't elevate the shoulder

Latissimus dorsi



Origin

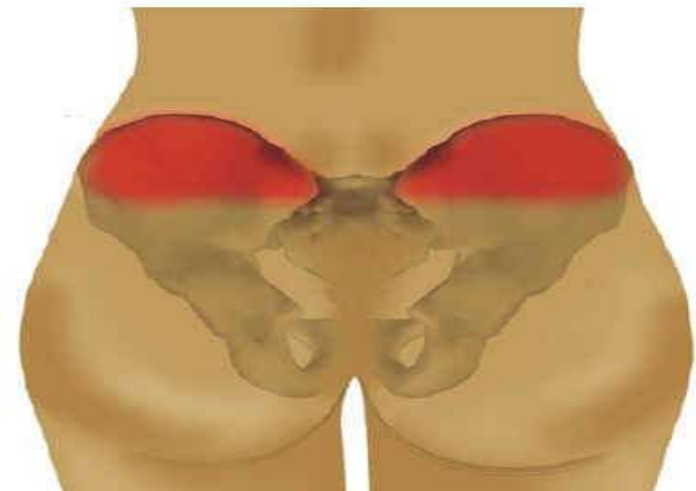
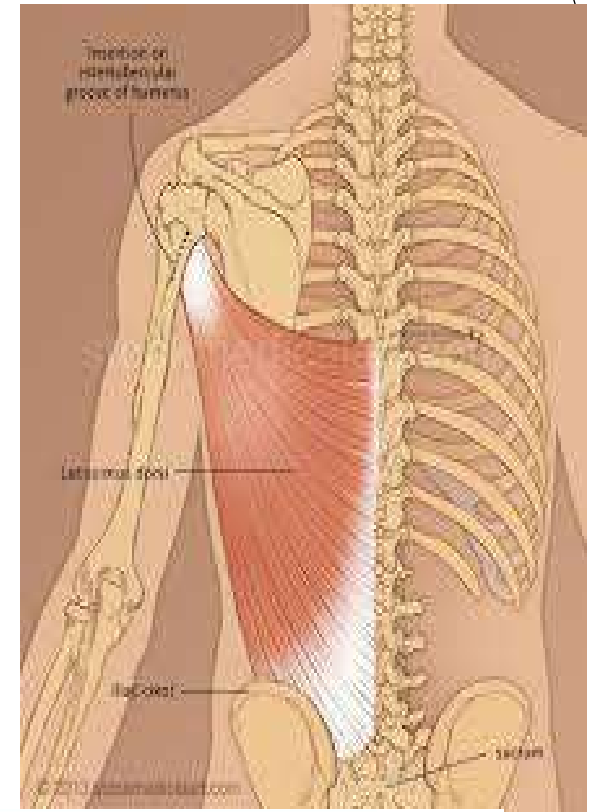
1. Spines of lower six thoracic vertebrae
2. Iliac crest of hip bone
3. Inferior angle of scapula

4. Insertion

The floor of the bicipital groove.



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Trapezius

Deltoids

Latissimus
Dorsi



Nerve supply:

Thoracodorsal nerve (C6,7,8).

Action:

1. Adduction and Medial rotation
2. Extension of the arm

(Swimming !!)



Levator Scapula



Origin:

Transverse processes of the upper 4 cervical vertebrae.

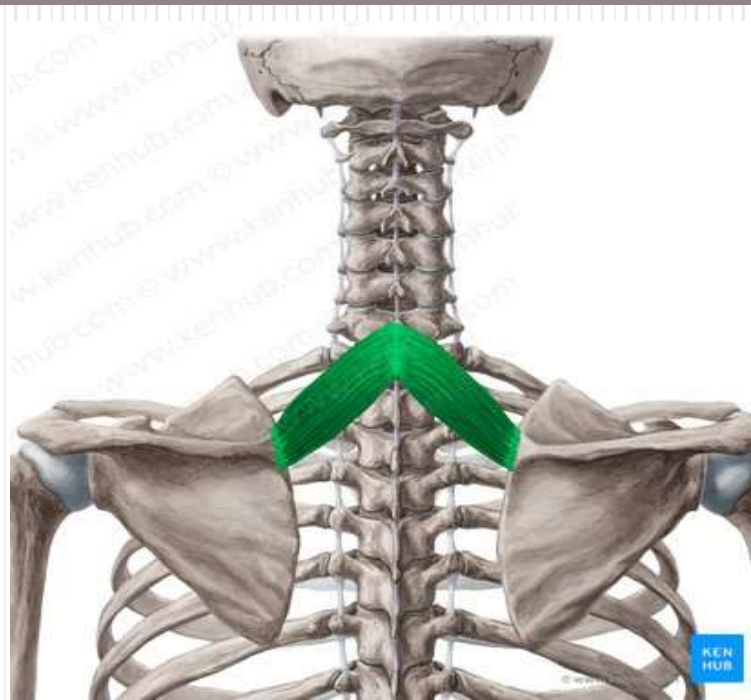
Insertion

Back of the medial border of the scapula

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Rhomboids minor



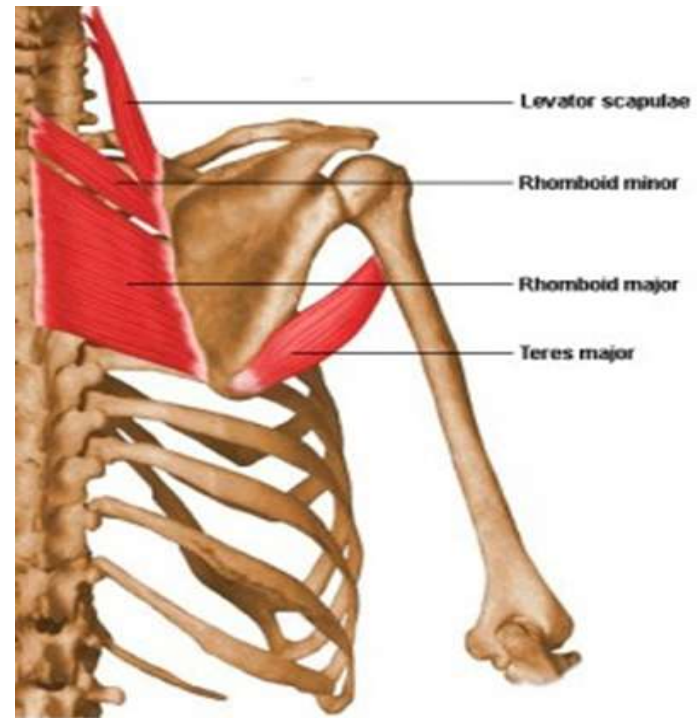
Origin:

Spine of 7th cervical and 1st thoracic vertebra.

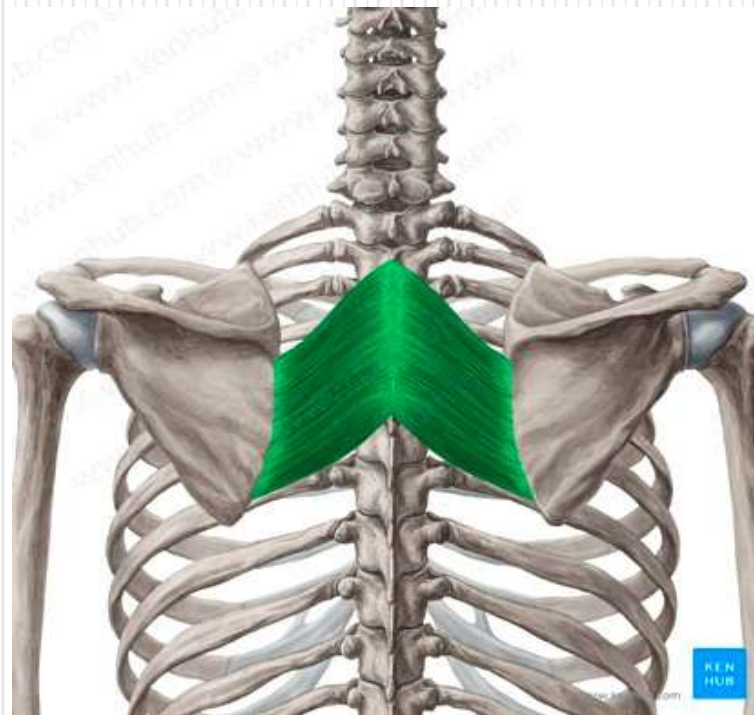
Insertion:

Medial end of the scapular spine.

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Rhomboideus major



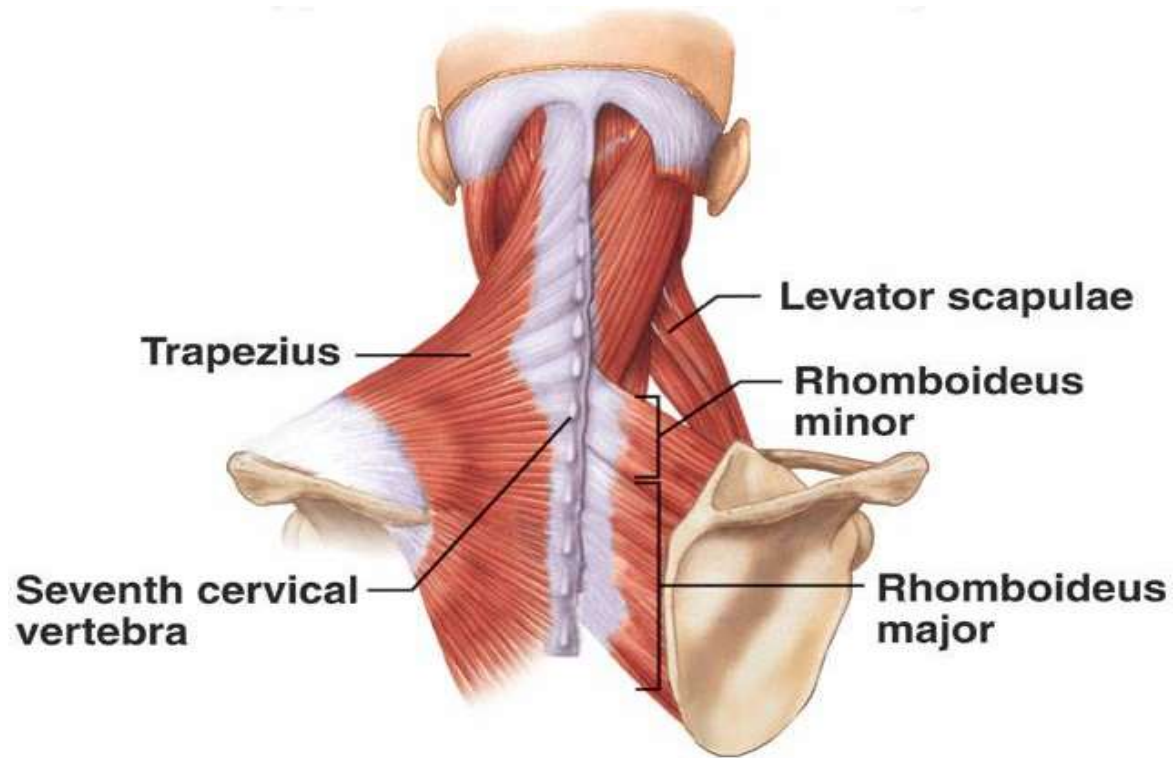
Origin:

spines of T 2,3,4,5

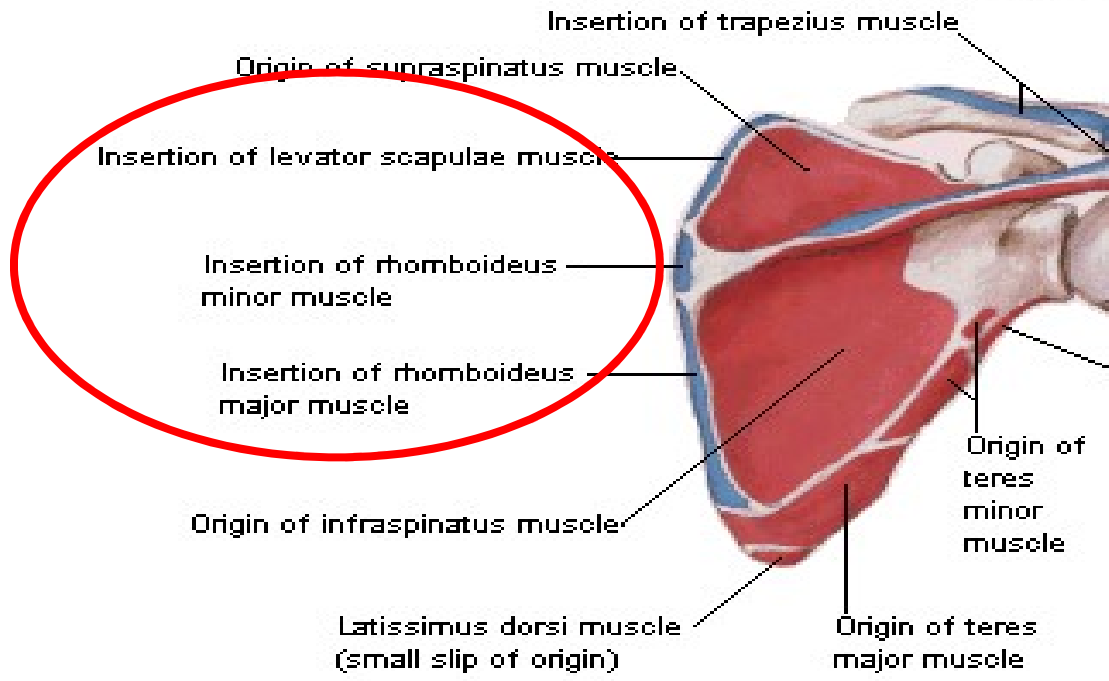
Insertion:

Back of the medial border of the scapula from spine to inferior angle

REED ONLY

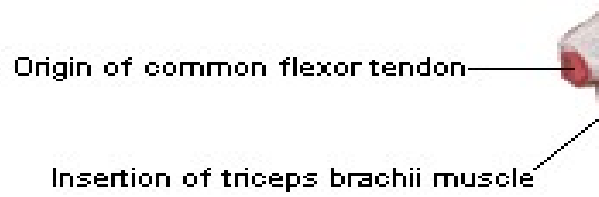


Humerus and Posterior View - Mus



Muscle attachments

- Origins**
- Insertions**



Nerve supply & Action of Rhomboids & Levator Scapulae

Nerve supply

Dorsal scapular nerve

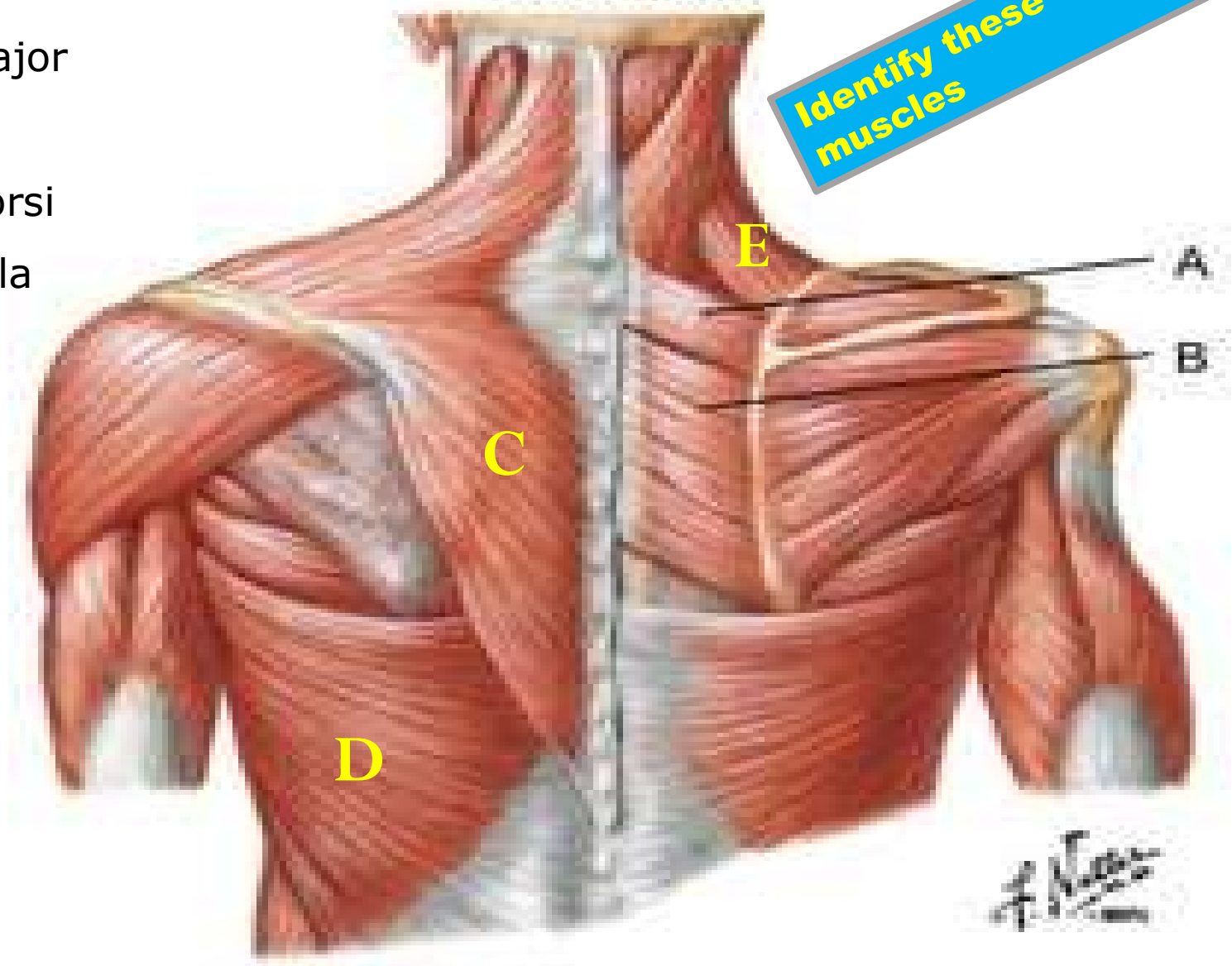
Actions

- These muscles, **retract** of the scapula.
- Levator scapula, **elevates** the scapula ,and when shoulder is fixed, it **laterally flexes** of the neck

Muscles of Shoulder Posterior View

- A: Rhomboids Minor
- B: Rhomboids major
- C: Trapezius
- D: Latissimus Dorsi
- E: Levator Scapula

Identify these muscles



Thank You