

RU RMT 02
Anatomy & Physiology
Lecture 21

Muscles of the Upper Limb –
Part One

Muscles of the Spinal Column

- Extrinsic vs Intrinsic muscles
 - There are many different muscular layers of the spinal column
 - Extrinsic muscles are superficial and only exert their action/movement on the UPPER LIMB
 - Intrinsic muscles (many sublayers) exert their action/movement on the spinal column itself
 - In this section we will ONLY be focusing on the extrinsic muscle layers

Superficial Muscles of the Back

Latissimus Dorsi

Origin: Iliac crest, Thoraco-lumbar (T/L) fascia
SP's of last 6 thoracic vertebrae and last 3-4
ribs **F.D:**

Insertion: Floor of the intertubercular
groove **Action:** Extension, adduction and
medial rotation of the humerus

If O and I switch then the action is that
the body raises towards the arms (chin up).
Thin, superficial and ascends the side
of the trunk.



Superficial Muscles of the Back

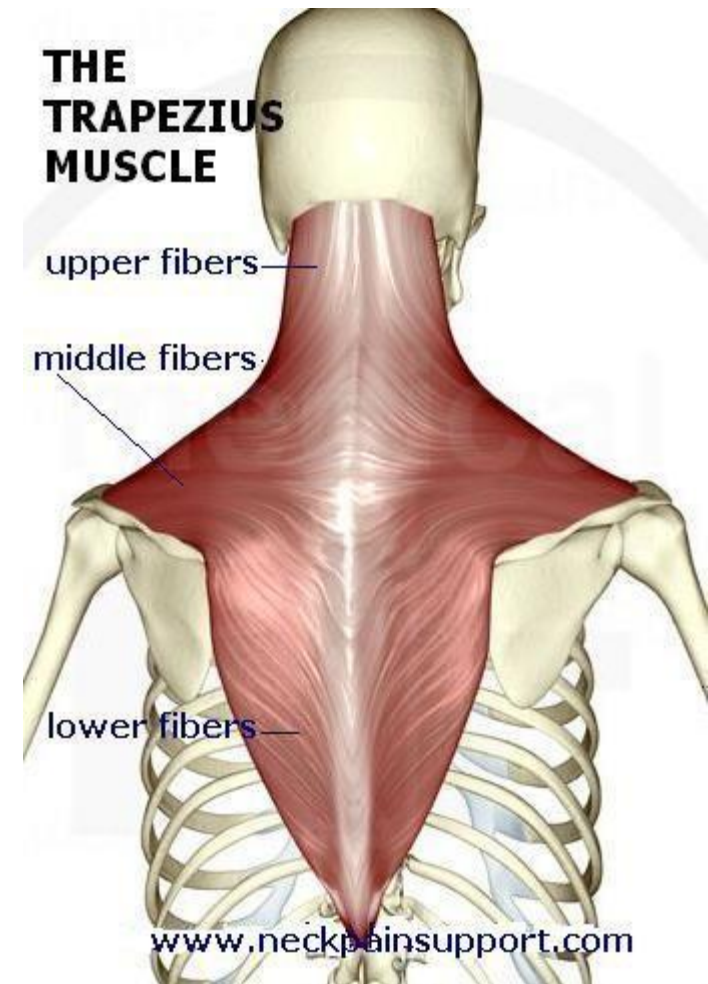
Trapezius Muscle

O: EOP, medial 1/3rd superior nuchal line, nuchal ligament and SP's of C7 to T12

F.D:

I: Lateral 1/3 of clavicle, acromion and spine of scapula

A: Upper fibers elevate, middle fibers retract and inferior fibers depress the scapula



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Superficial Muscles of the Back

Rhomboid Minor

O: Ligamentum nuchae and SP's of C7-T1 **I:** Medial border of scapula at the spine of scapula



Rhomboid Major **O:** SP

of T2-T5

I: Medial border of scapula between spine and inferior angle

A: Adducts (retracts scapula), does downward rotation and fixes scapula to thoracic wall (assists serratus anterior)

F.D:



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Superficial Muscles of the Back

Levator Scapulae

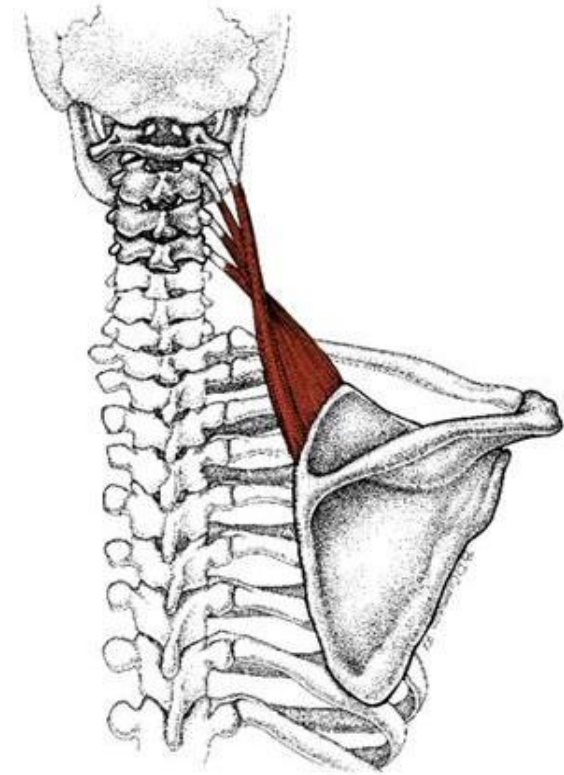
O: Posterior tubercle of TVP's of C1-C4 **F.D:**

I: Medial border of scapula superior to the root of spine of scapula

A: Elevates scapula and performs downward rotation of the scapula

This muscle is found just deep to the upper fibers of trapezius.

Levator Scapulae



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Anterior Trunk

Pectoralis Major Muscles

O: Clavicular Head: Anterior surface of the medial ½ of the clavicle

Sternal Head: Anterior sternum, superior 6 costal cartilages and aponeurosis of the external oblique abdominal muscles **F.D:**

I: Lateral lip of the inter-tubercular groove of the humerus

A: Adduct, internal rotation of the humerus and extends the arm from 90 degrees of flexion (The clavicular head alone will also aid in flexion of the arm)



Anterior Trunk

Pectoralis Minor Muscles

O: Ribs 3-5 close to their costal cartilage

F.D:

I: Coracoid process of the scapula

A: Stabilize the scapula by drawing it inferiorly and anteriorly against the thoracic wall



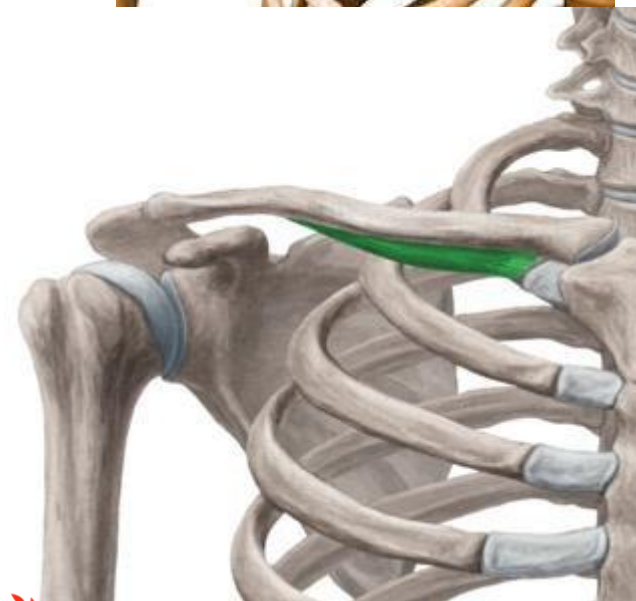
Subclavius

O: Junction of first rib and its cartilage

F.D:

I: Inferior aspect of clavicle (middle third)

A: Draws clavicle medially and anteriorly



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Superficial Trunk Muscles

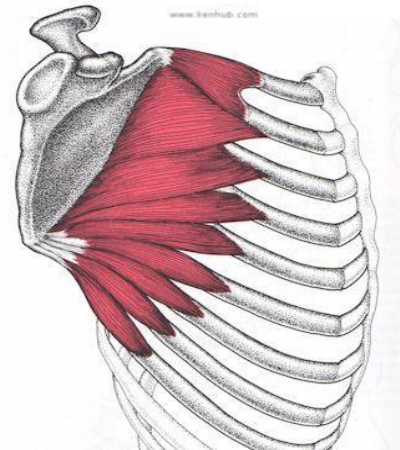
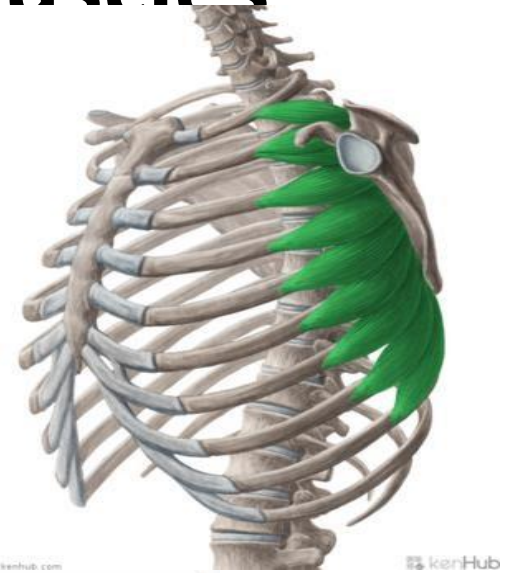
Serratus Anterior

O: External surfaces of the lateral part of the ribs

1-8

F.D:

I: Anterior surface of the medial border of scapula **A:** Protracts the scapula and holds it against the thoracic wall, upward rotation of scapula



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