

#### **Bones**

Scapula and Clavicle

Move as a unit

Clavicle's articulation with sternum is only bony link to axial skeleton

### **Boney Landmarks**

Manubrium

Clavicle

Coracoid process

Acromion process

Glenoid fossa

Lateral border

Inferior angle

Medial border

Acromion process

Glenoid fossa

Lateral border

Inferior angle

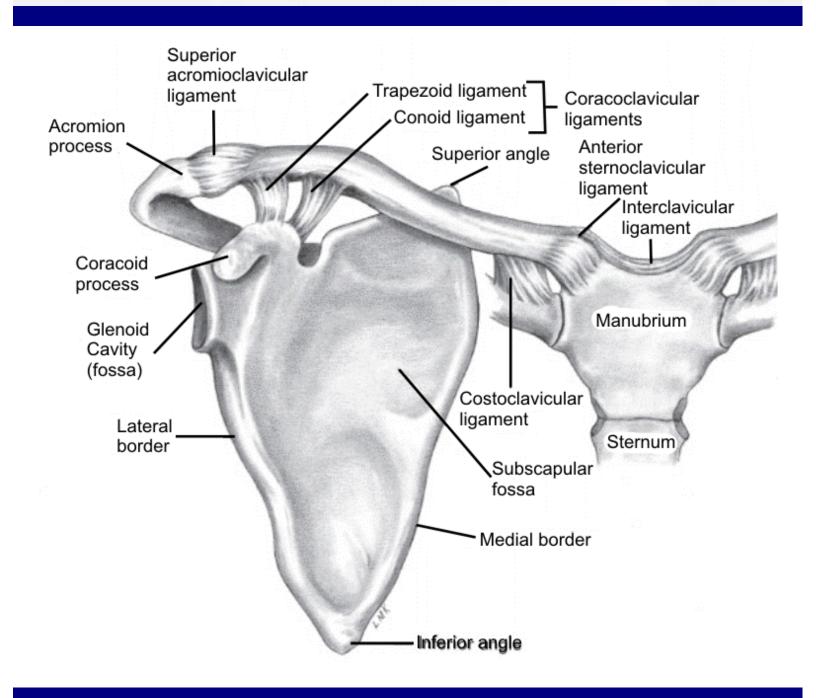
Medial border

Superior angle

Spine of the scapula

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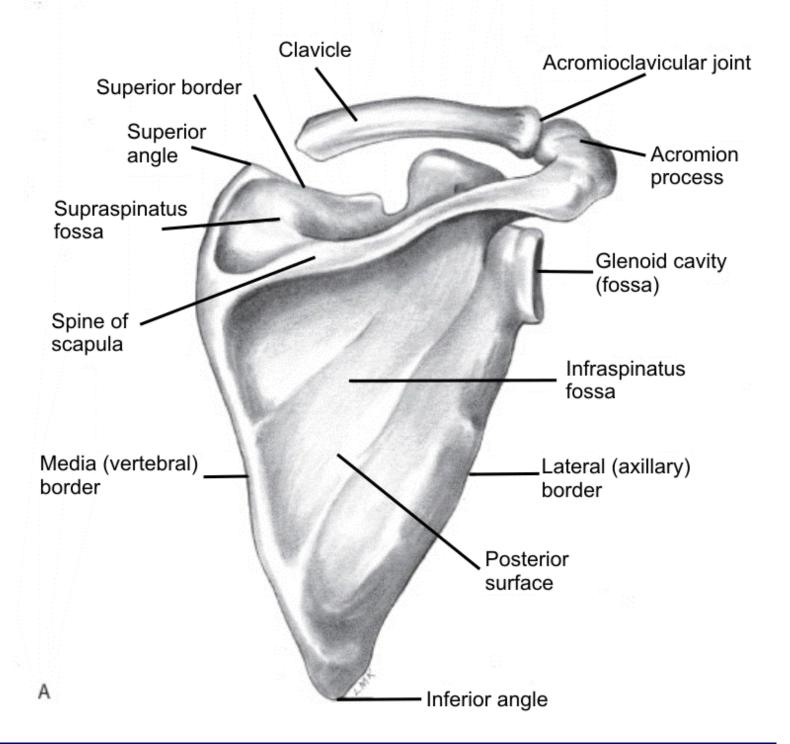
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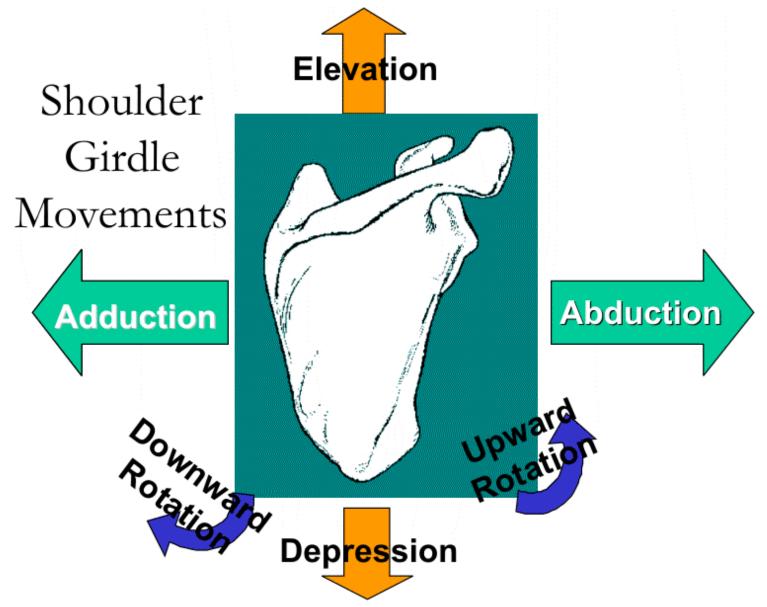
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Joints			
Shoulder girdle (scapulothoracic)	scapula moves on the rib cage joint motion occurs at sternoclavicular joint & to a lesser amount at the acromioclavicular joint		
Sternoclavicular (SC)	(multiaxial) arthrodial classification Sternoclavicular (SC) Ligamentous support		
Acromioclavicular (AC)	arthrodial classification supported by  Coracoclavicular ligaments Superior acromioclavicular ligament Inferior acromioclavicular ligament often injured		
Scapulothoracic	not a true synovial joint does not have regular synovial features movement depends on SC & AC joints which allows the scapula to move supported dynamically by its muscles no ligamentous support		

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# Shoulder Girdle Movements = Scapula Movements



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# Abduction (protraction)

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# Adduction (retraction)

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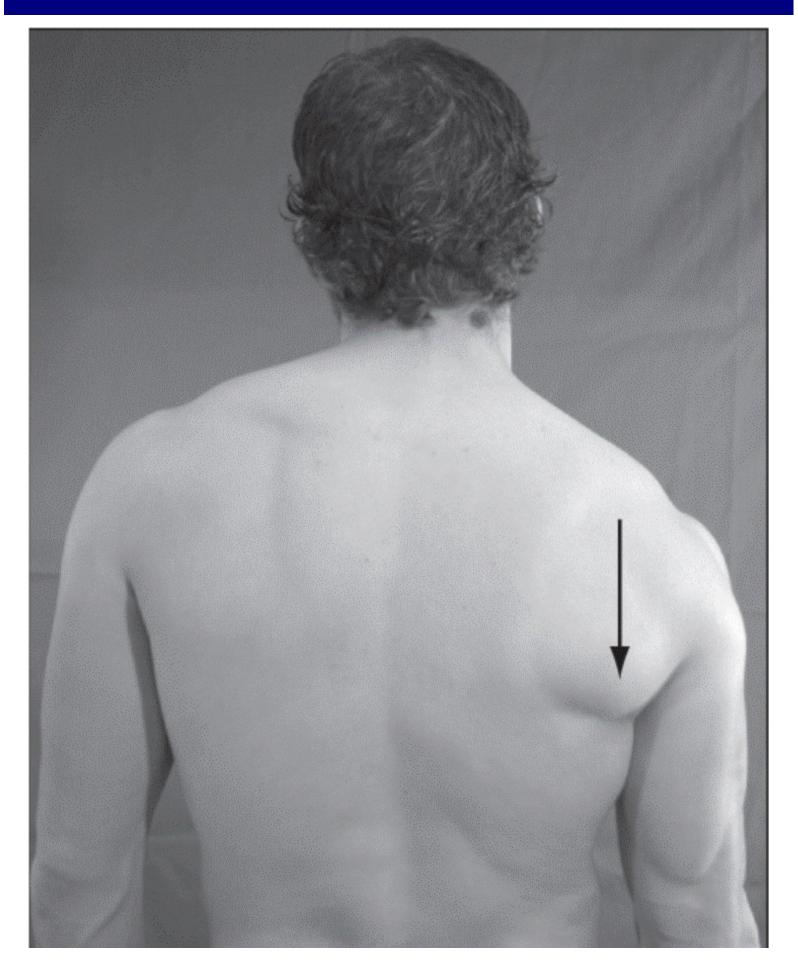


## Elevation

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# Depression



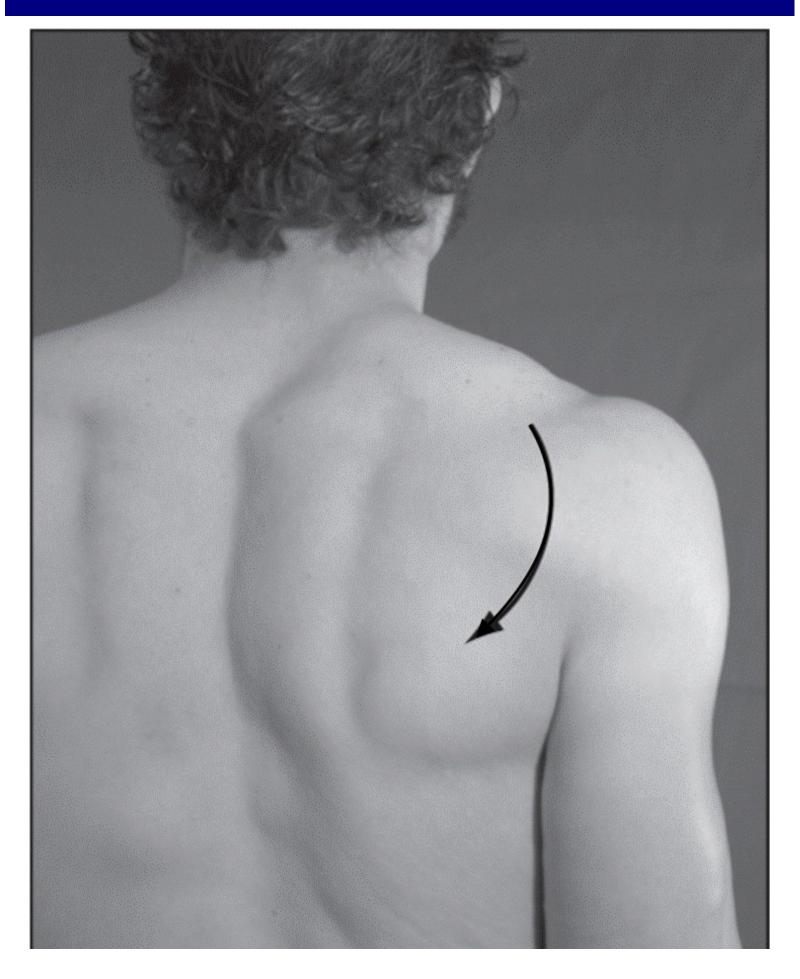


## Elevation

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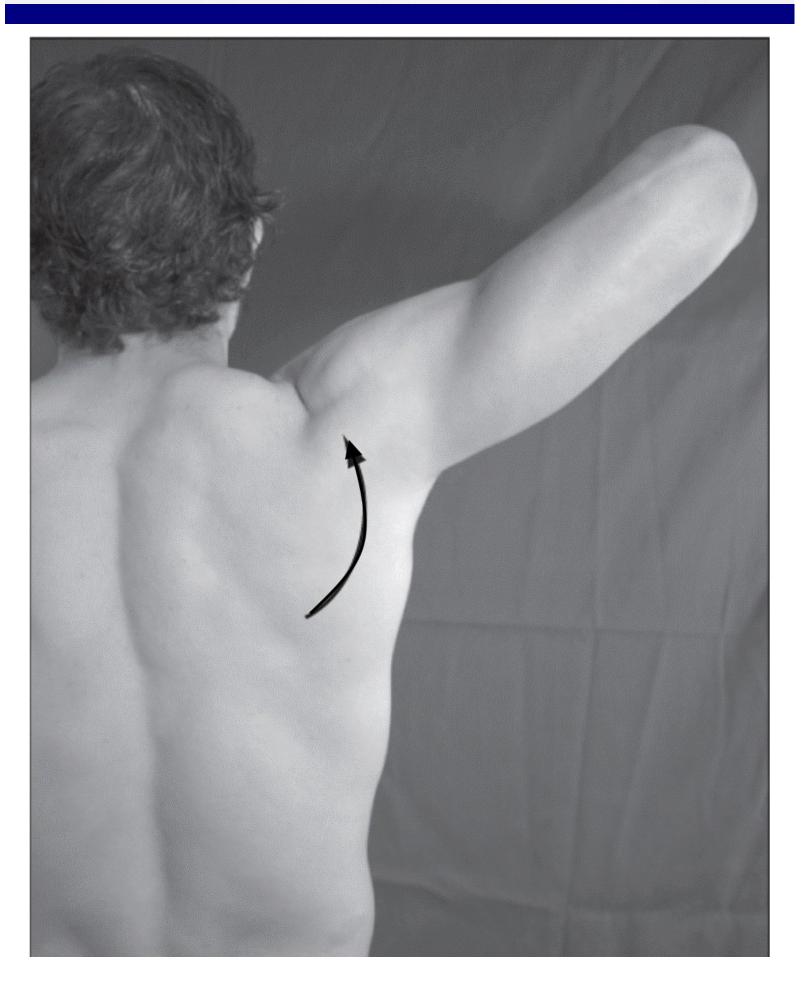
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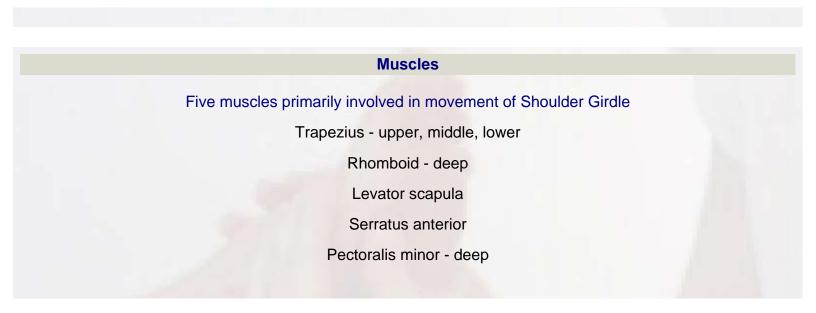
# **Downward Rotation**

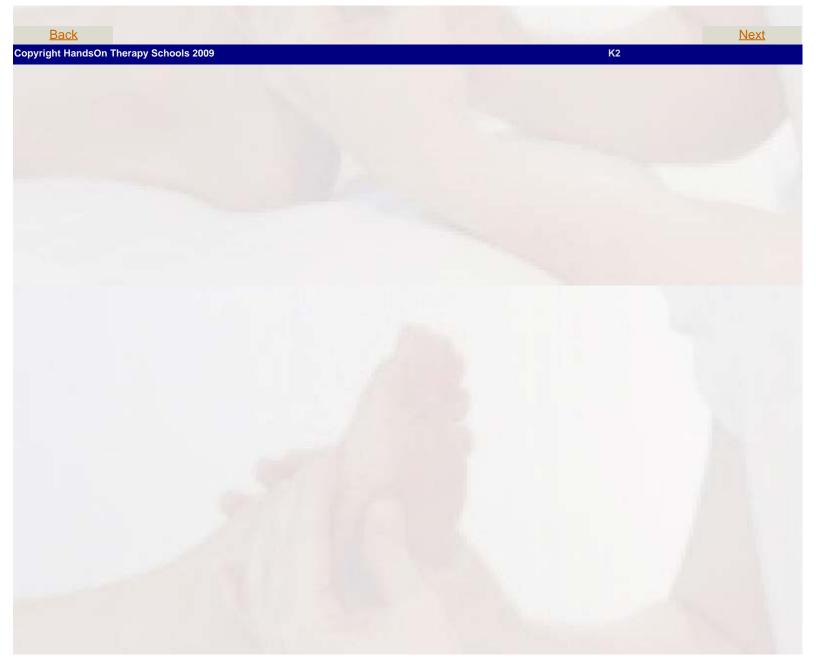


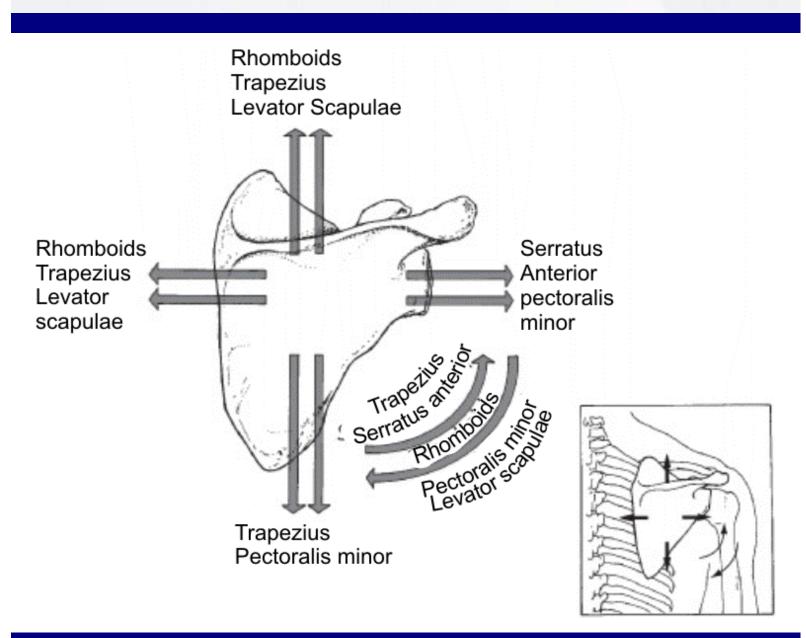


# **Upward Rotation**







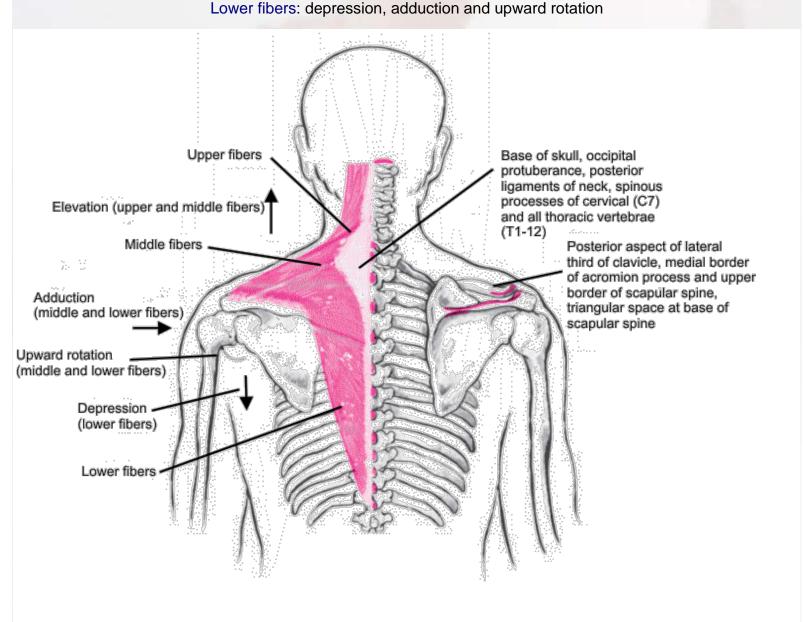


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#### **Trapezius Muscle**

Upper fibers: elevation of scapula, extension and rotation of head

Middle fibers: elevation, upward rotation and adduction



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# **Levator Scapulae Muscle** Elevates the medial margin of the scapula Origin Transverse processes of upper four cervical vertebrae (C1-4) Elevation Insertion Medial border of scapula above spine

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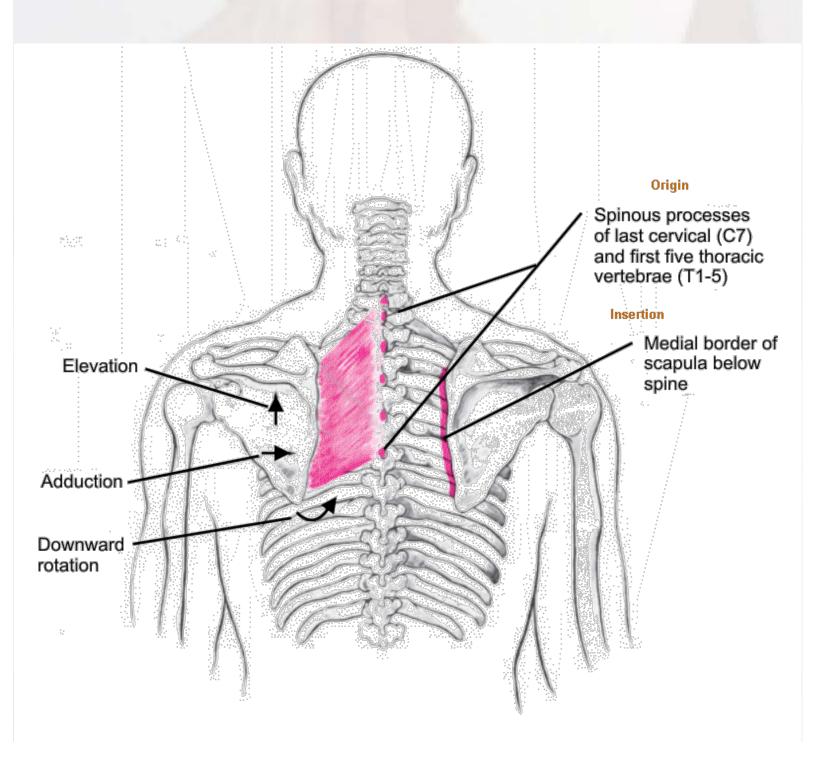
### **Rhomboid Muscle: Major and Minor**

### Rhomboid major and minor muscles work together

Adduction (retraction): draw scapula toward spinal column

Downward rotation: from upward rotated position they draw scapula in downward rotation

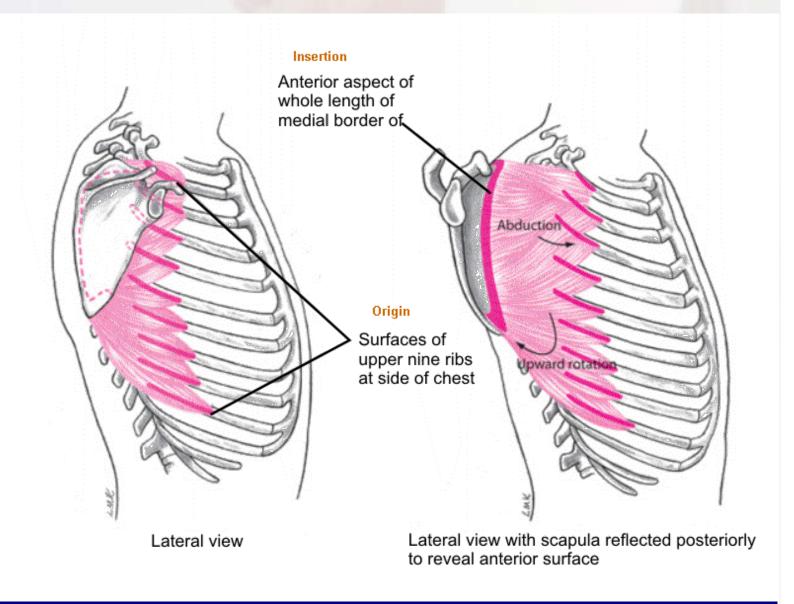
Elevation: slight upward movement accompanying adduction



#### **Serratus Anterior Muscle**

Abduction (protraction): draws medial border of scapula away from vertebrae

Upward rotation: longer, lower fibers tend to draw inferior angle of scapula farther away from vertebrae, thus rotating scapula upward slightly



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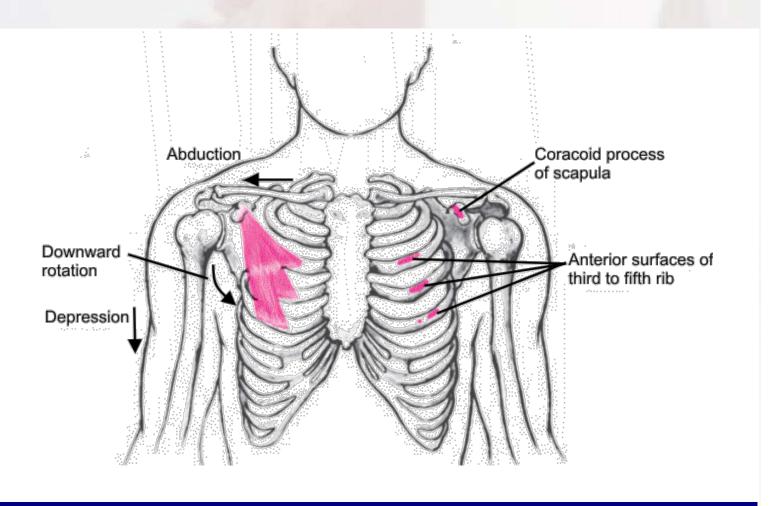
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#### **Pectoralis Minor Muscle**

Abduction (protraction): draws scapula forward & tends to tilt lower border away from ribs

Downward rotation: as it abducts, it draws scapula downward

Depression: when scapula is rotated upward, it assists in depression



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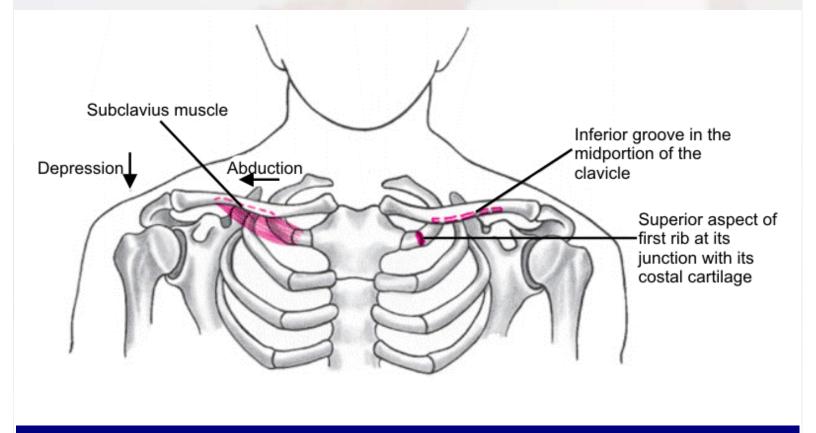
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#### **Subclavius Muscle**

Stabilization and protection of sternoclavicular joint

Depression

Abduction



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