Muscles of the shoulder and axilla

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**Boundaries of the axilla**

**superiorly**: by the outer border of first rib, superior border of scapula, and posterior border of clavicle

**medially**: serratus anterior and by the ribcage

**anteriorly**: by the pectoralis major, minor, and subclavius posteriorly: by the subscapularis above, and teres major and latissimus dorsi below

**floor/base**: by the skin (visible surface of axilla)
Contents of the axilla

Axillary lymph nodes and fat

Muscles connecting the upper limb to the trunk (anterior group)

- Teres major and latissimus dorsi
- Subscapularis muscle
- 1st Rib
- Scapula
- Serratus anterior muscle
- Long thoracic nerve
- Axillary vein
- Axillary artery
- Cords of brachial plexus
- Pectoralis minor
- Pectoralis major
- Humerus
- Long head of biceps brachii in bicipital groove
- Short head of biceps brachii and coracobrachialis
- Pectoralis minor
- Pectoralis major
- Serratus anterior
- Insertion: medial border of scapula
- Origin: upper 8 or 9 ribs
Muscles connecting the upper limb to the trunk (anterior group)

<table>
<thead>
<tr>
<th>Muscle</th>
<th>Origin</th>
<th>Insertion</th>
<th>Innervation</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pectoralis major</td>
<td>Clavicular head—anterior surface of medial half of clavicle; sternocostal head—anterior surface of sternum; first seven costal cartilages; sternal end of sixth rib; aponeurosis of external oblique</td>
<td>Lateral lip of intertubercular sulcus of humerus</td>
<td>Medial and lateral pectoral nerves; clavicular head [C5, C6]; sternocostal head [C6, C7, C8, T1]</td>
<td>Flexion, adduction, and medial rotation of arm at glenohumeral joint; clavicular head—flexion of extended arm; sternocostal head—extension of flexed arm</td>
</tr>
<tr>
<td>Subclavius</td>
<td>First rib at junction between rib and costal cartilage</td>
<td>Groove on inferior surface of middle one-third of clavicle</td>
<td>Nerve to subclavius [C5, C6]</td>
<td>Pulls tip of shoulder down; pulls clavicle medially to stabilize sternoclavicular joint</td>
</tr>
<tr>
<td>Pectoralis minor</td>
<td>Anterior surfaces and superior borders of ribs III to V; and from deep fascia overlying the related intercostal spaces</td>
<td>Coracoid process of scapula (medial border and upper surface)</td>
<td>Medial pectoral nerve [C5, C6, C7, C8, T1]</td>
<td>Pulls tip of shoulder down; protracts scapula</td>
</tr>
</tbody>
</table>
Muscles connecting the upper limb to the trunk (posterior group)

Trapezius, Levator scapulae, Rhomboid major, Rhomboid minor, and Latissimus dorsi muscles
<table>
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<tbody>
<tr>
<td>Trapezius</td>
<td>Superior nuchal line, external occipital protuberance, medial margin of the ligamentum nuchae, spinous processes of CVII to TXII and the related supraspinous ligaments</td>
<td>Superior edge of the crest of the spine of the scapula, acromion, posterior border of lateral one-third of clavicle</td>
<td>Motor accessory nerve [XI]. Sensory (proprioception) anterior rami of C3 and C4</td>
<td>Powerful elevator of the scapula; rotates the scapula during abduction of humerus above horizontal; middle fibers retract scapula; lower fibers depress scapula</td>
</tr>
<tr>
<td>Latissimus dorsi</td>
<td>Spines of thoracic, Lumb. and sacral vertebrae, iliac crest, thoracolumbar fascia and four lower ribs</td>
<td>Floor of bicepital groove</td>
<td>Thoracodorsal nerve</td>
<td>Extension, adduction and medial rotation of humerus</td>
</tr>
</tbody>
</table>
Scapulohumeral muscles

Deltoid, Teres major, and cuff muscles (Supraspinatus, infraspinatus, Subscapularis, and teres minor muscle)
### Scapulohumeral muscles

**Deltoid, Teres major, and cuff muscles (Supraspinatus, infraspinatus, Subscapularis, and teres minor muscle)**

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<tbody>
<tr>
<td>Supraspinatus</td>
<td>Medial two-thirds of the supraspinoius fossa of the scapula and the deep fascia that covers the muscle</td>
<td>Most superior facet on the greater tubercle of the humerus</td>
<td>Suprascapular nerve [C5, C6]</td>
<td>Rotator cuff muscle; initiation of abduction of arm to 15° at glenohumeral joint</td>
</tr>
<tr>
<td>Infraspinatus</td>
<td>Medial two-thirds of the infraspinoius fossa of the scapula and the deep fascia that covers the muscle</td>
<td>Middle facet on posterior surface of the greater tubercle of the humerus</td>
<td>Suprascapular nerve [C5, C6]</td>
<td>Rotator cuff muscle; lateral rotation of arm at the glenohumeral joint</td>
</tr>
<tr>
<td>Teres minor</td>
<td>Upper two-thirds of a flattened strip of bone on the posterior surface of the scapula immediately adjacent to the lateral border of the scapula</td>
<td>Inferior facet on the posterior surface of the greater tubercle of the humerus</td>
<td>Axillary nerve [C5, C6]</td>
<td>Rotator cuff muscle; lateral rotation of arm at the glenohumeral joint</td>
</tr>
<tr>
<td>Teres major</td>
<td>Elongate oval area on the posterior surface of the inferior angle of the scapula</td>
<td>Medial lip of the intertubercular sulcus on the anterior surface of the humerus</td>
<td>Inferior subscapular nerve [C5, C6, C7]</td>
<td>Medial rotation and extension of the arm at the glenohumeral joint</td>
</tr>
<tr>
<td>Subscapularis</td>
<td>Medial two-thirds of the subspapular fossa on the scapular</td>
<td>Lesser tubercle of the humerus</td>
<td>Subscapular nerve C5, 6, 7</td>
<td>Medial rotation and adduction of the shoulder joint</td>
</tr>
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<tr>
<td>Deltoid</td>
<td>Inferior edge of the crest of the spine of the scapula, lateral margin of the acromion, anterior border of lateral one-third of clavicle</td>
<td>Deltoid tuberosity of humerus</td>
<td>Axillary nerve [C5, C6]</td>
<td>Major abductor of arm (abducts arm beyond initial 15° done by supraspinatus); clavicular fibers assist in flexing the arm; posterior fibers assist in extending the arm</td>
</tr>
</tbody>
</table>
Muscles of the arm

- **Coracoid process**
- **Biceps brachii long head**
- **Biceps tendon insertion on supraglenoid tubercle of scapula**
- **Tuberosity of radius**
- **Biceps brachii short head**
- **Coracobrachialis muscle**
- **4. Coracobrachialis bursa**
Muscles of the arm

- Clavicle
- Deltoid
- Sternum
- Pectoralis major
- Biceps brachii
- Brachialis
- Brachioradialis
- Coracobrachialis m.
- Pectoralis minor m.
- Brachialis m.
- Brachialis insertion onto coronoid process of ulna
Lateral head

Long head

Triceps Brachii

Lateral Head

Long Head

Medial Head
# Muscles of the arm

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<tr>
<td>Biceps brachii</td>
<td>Long head—supraglenoid tubercle of humerus</td>
<td>Radial tuberosity, fascia of forearm via bicipital aponeurosis</td>
<td>Musculocutaneous nerve (C5, C6)</td>
<td>Flexes and supinates forearm</td>
</tr>
<tr>
<td></td>
<td>Short head—tip of coracoid process of scapula</td>
<td></td>
<td></td>
<td>Flexes arm when forearm is fixed</td>
</tr>
<tr>
<td>Coracobrachialis</td>
<td>Tip of coracoid process of scapula</td>
<td>Middle third of medial surface of humerus</td>
<td>Musculocutaneous nerve (C5, C6, C7)</td>
<td>Flexes and adducts arm</td>
</tr>
<tr>
<td>Brachialis</td>
<td>Distal half of anterior surface of humerus</td>
<td>Coronoid process and tuberosity of ulna</td>
<td>Musculocutaneous nerve (C5, C6)</td>
<td>Flexes forearm</td>
</tr>
<tr>
<td>Triceps brachii</td>
<td>Long head—infraglenoid tubercle of scapula</td>
<td>Posterior surface of olecranon process of ulna</td>
<td>Radial nerve (C6, C7, C8)</td>
<td>Extends forearm, long head stabilizes head of abducted humerus</td>
</tr>
</tbody>
</table>
Thank You