

DELTOID



Deltoid is a large muscle in a triangular shape that covers the shoulder joint and gives the shoulder its round shape. It is made up of three parts – the anterior (clavicular), middle (acromial), and posterior (spinal) portions. Its main functions are to move the shoulder away from the body and keep the upper arm bone stable. It also helps in lifting the arm forward.

ANATOMY

[Origin]

- Lateral third of clavicle
- Acromion
- Spine of Scapula

[Insertion]

- Deltoid Tuberosity of Humerus

[Action]

- Clavicular part: flexes and medially rotates arm
- Acromial part: abducts arm
- Spinal part: extends and laterally rotates arm



CLINICAL RELEVANCE

The Importance of Deltoid Muscle

All heads of the deltoid work together to produce abduction of the Shoulder Joint. It helps lift the arm front, side, and backward. Deltoid pain can affect anyone who does repetitive overhead activities (eg. house painters, swimmers, Waterpolo players, and pitchers). It also is active with carrying objects eg suitcases or reaching up for objects, to prevent subluxation/dislocation. The deltoid compensates for the loss of strength in the rotator cuff.

Shoulder Dislocation and Deltoid Muscle

During dislocation of the shoulder or fracture of surgical neck of the humerus, axillary nerve may be injured. The damage to axillary nerve leads to paralysis of the deltoid muscle.

EVIDENCE BASED EXERCISES

According to an EMG study, the exercises that demonstrated significant muscle contractions of Deltoid are;

- Anterior Deltoid: Dumbbell Shoulder Press
- Middle Deltoid: Bent-Arm Lateral Raise, 45-degree Incline Row
- Posterior Deltoid: Seated Rear Lateral Raise, 45-degree Incline Row

Dumbbell Shoulder Press



Bent-Arm Lateral Raise



Seated Rear Lateral Raise



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