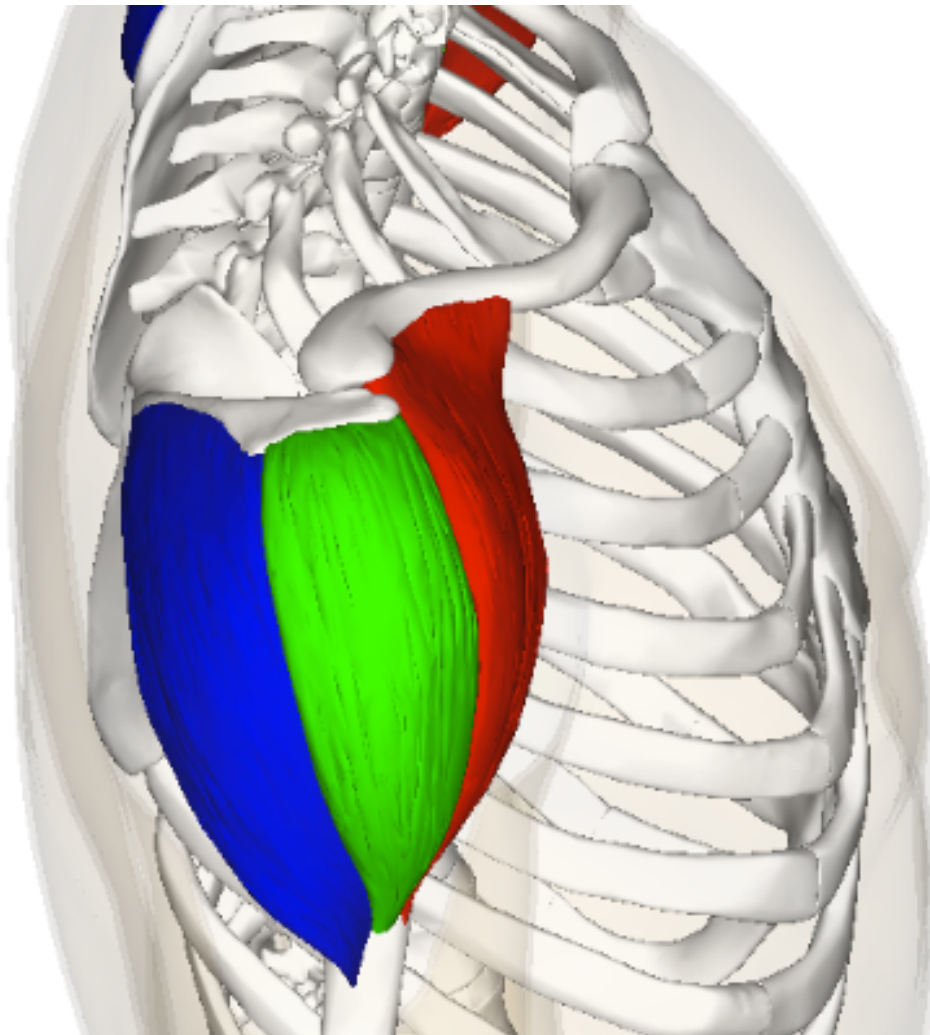


ANATOMY OF THE DELTOIDS

STUDY GUIDE



**WANT AN IN-DEPTH BREAKDOWN
& VIDEO DEMONSTRATIONS?**

Check out the course:
"Lesson 8: Deltoids"

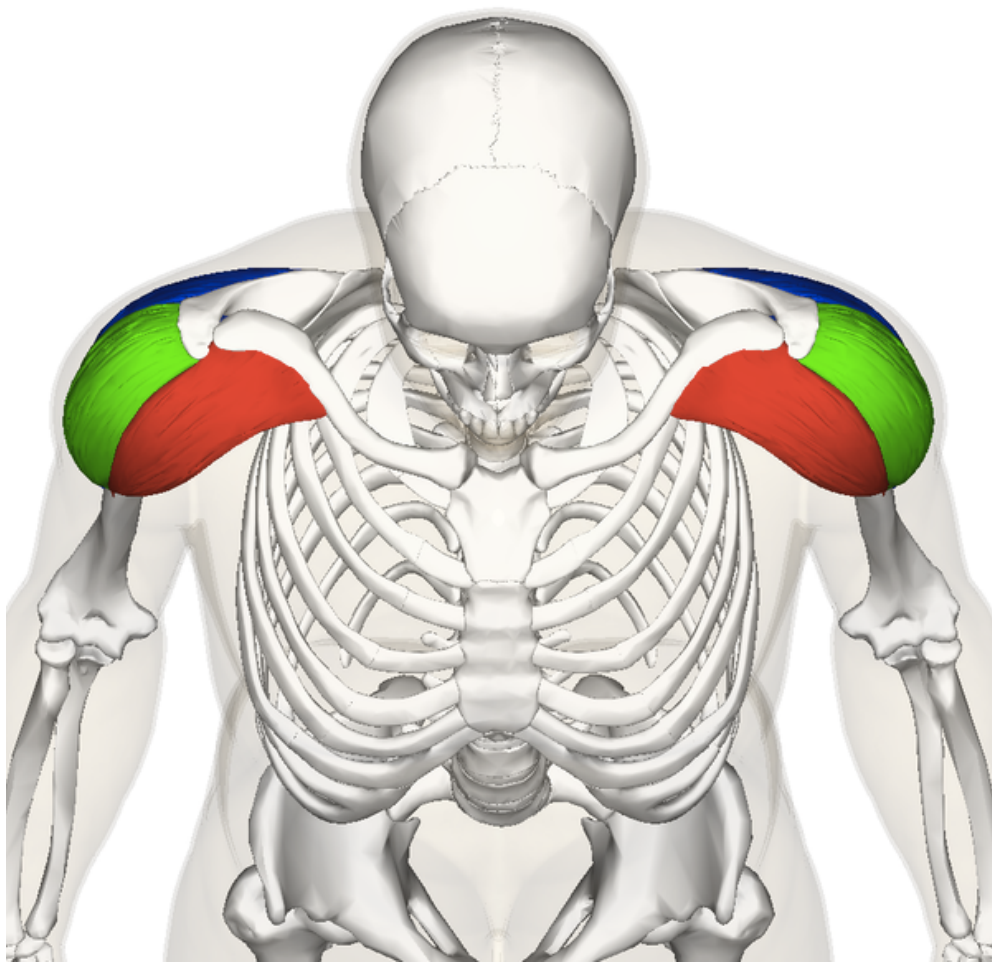


ANATOMY OF THE DELTOIDS:

The deltoid is commonly divided into 3 distinct parts based on function, fiber arrangement, neural innervation, and distinct separation at the proximal attachment.

The 3 divisions are:

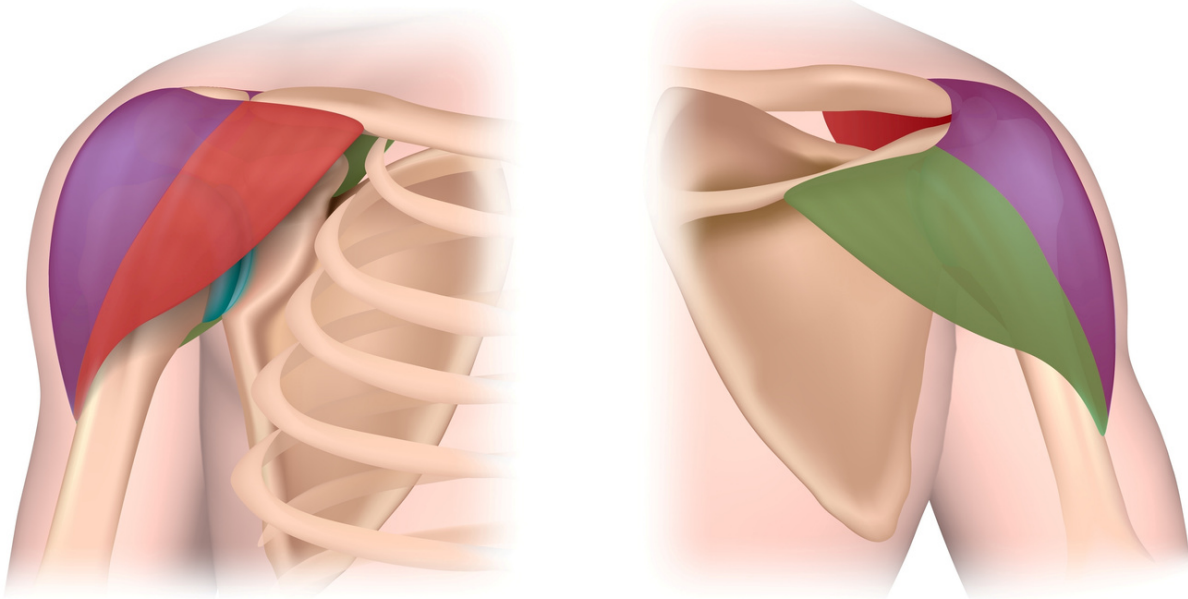
- Anterior deltoid
- Middle deltoid (there is no such thing as a "medial" deltoid)
- Posterior deltoid



ANATOMY OF THE DELTOIDS:

What joint do these muscles cross?

- These muscles originate on the distal third of the clavicle, acromion process, and spine of the scapula, and insert into the deltoid tuberosity of the humerus. These muscles cross the shoulder (glenohumeral joint) and assist in motion of the arm. They have no attachment to the rib-cage or torso, so unlike our axial scapular muscles, under most circumstances the deltoids cannot move the scapula and shoulder girdle.



Anterior deltoid

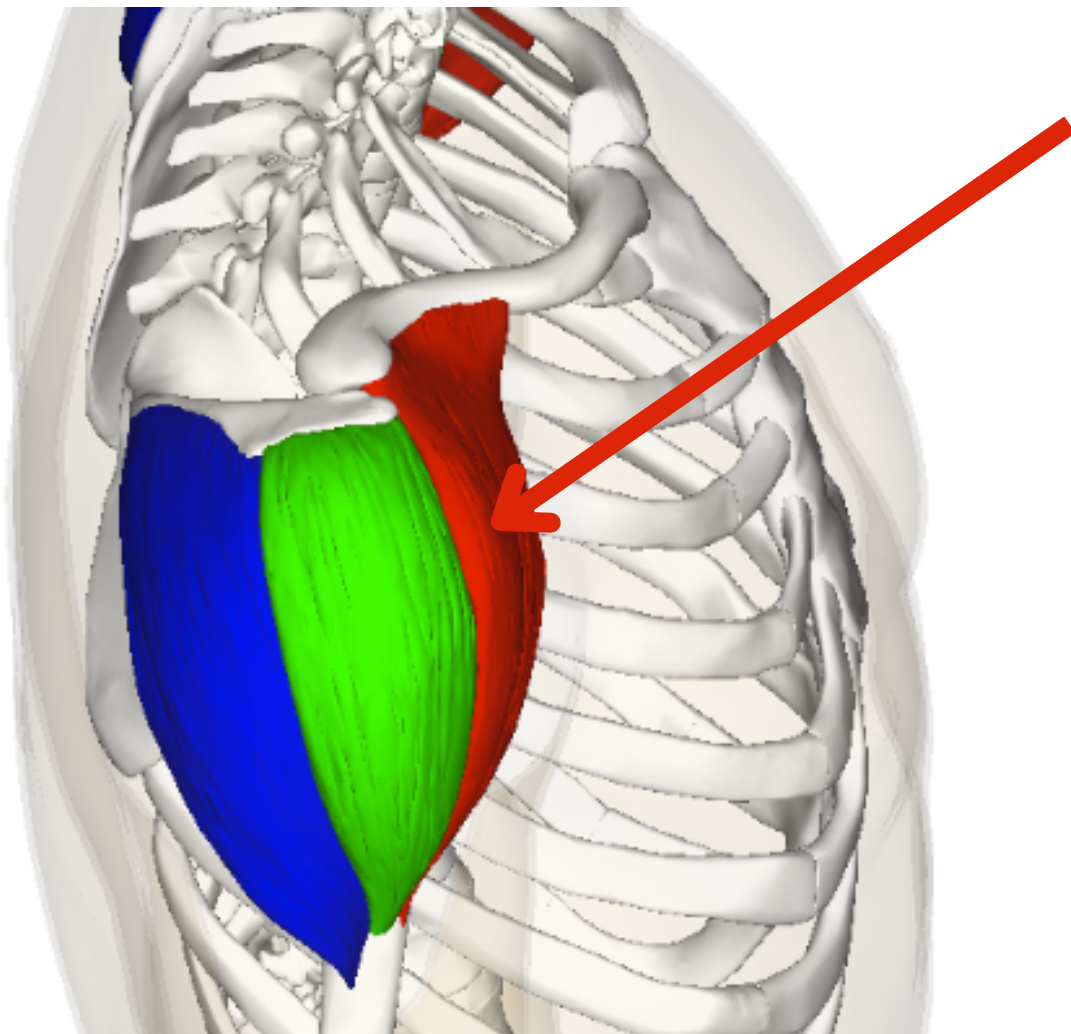
Lateral deltoid

Posterior deltoid

ANATOMY OF THE DELTOIDS:

Anterior Deltoid:

- **Origin:** Lateral 1/3 of the clavicle
- **Insertion:** Deltoid tuberosity of humerus
- **Actions:** Flexion, horizontal adduction, and internal rotation



TEST YOUR KNOWLEDGE:

Anterior Deltoid:

- What direction (plane) do the fibers of anterior deltoid run?
- Based on the direction of fibers - in what plane do you think this muscle will play the largest role? (Highlight the joint actions in that plane)
- When this muscle shortens which direction will it pull the arm? (If you are having a hard time with this question, imagine front raises - an exercise commonly used to "target" the anterior deltoids)?
- What is the name of the joint action that occurs in that same direction?
- What happens when you raise your arm to the side by 90 degrees (elbow level with shoulder)? What plane are the fibers aligned?
- Now, which direction will they pull the arm, and what is this joint action called?

TEST YOUR KNOWLEDGE: ANSWER KEY

Anterior Deltoid:

- What direction (plane) do the fibers of anterior deltoid run?

Up and down

- Based on the direction of fibers - in what plane do you think this muscle will play the largest role? (Highlight the joint actions in that plane)

Sagittal

- When this muscle shortens which direction will it pull the arm? (If you are having a hard time with this question, imagine front raises - an exercise commonly used to "target" the anterior deltoids)?

Up

- What is the name of the joint action that occurs in that same direction?

Flexion

- What happens when you raise your arm to the side by 90 degrees (elbow level with shoulder)? What plane are the fibers aligned?

Horizontally/Transverse plane

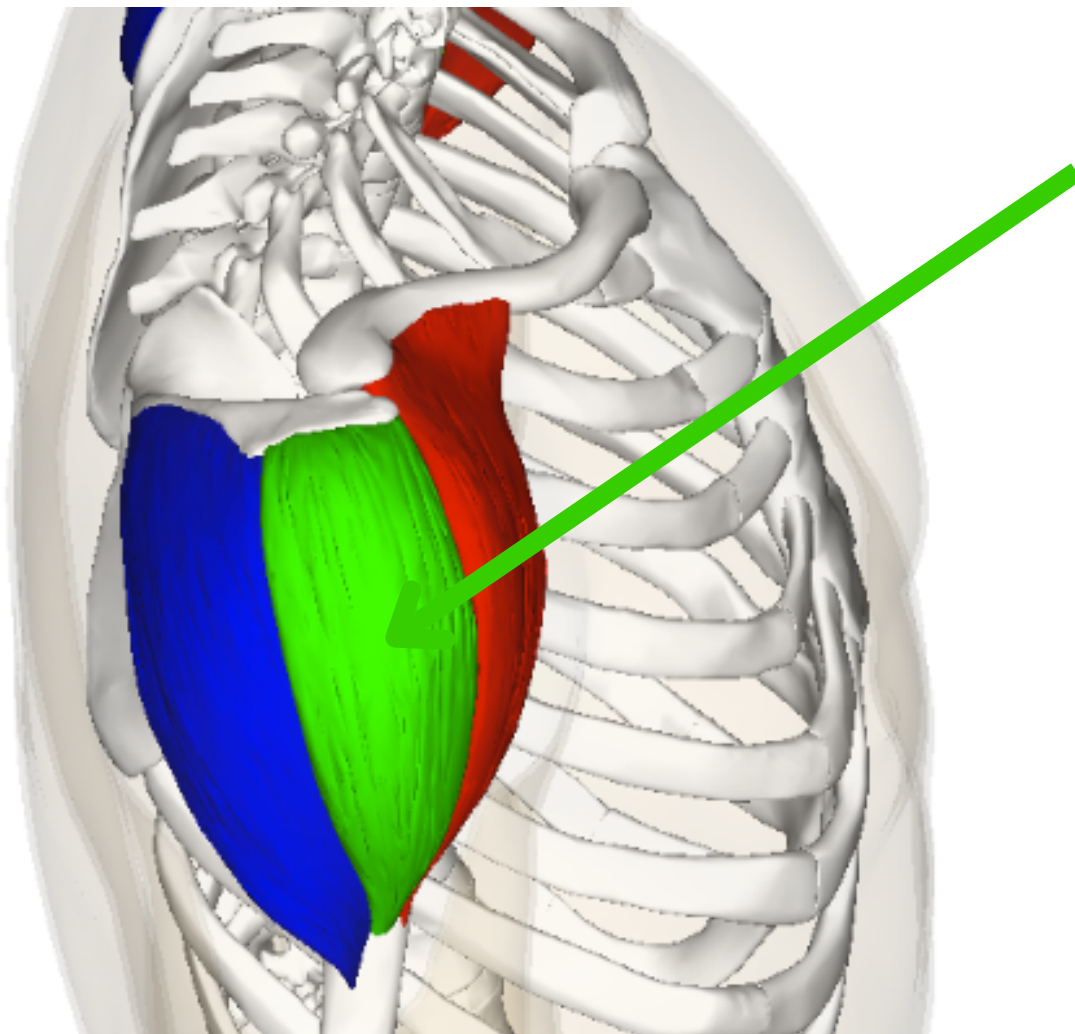
- Now, which direction will they pull the arm, and what is this joint action called?

In or across the body - Horizontal adduction

ANATOMY OF THE DELTOIDS:

Middle Deltoid:

- **Origin:** Acromion process
- **Insertion:** Deltoid tuberosity of humerus
- **Actions:** Abduction



TEST YOUR KNOWLEDGE:

Middle Deltoid:

- With fibers that run up and down on the side of the body, which plane is this muscle best oriented to work in?
- What are the names of the joint actions that occur in that plane?
- Which of those two joint actions is the middle deltoid capable of producing?

TEST YOUR KNOWLEDGE: ANSWER KEY

Middle Deltoid:

- With fibers that run up and down on the side of the body, which plane is this muscle best oriented to work in?

Frontal

- What are the names of the joint actions that occur in that plane?

Abduction and adduction

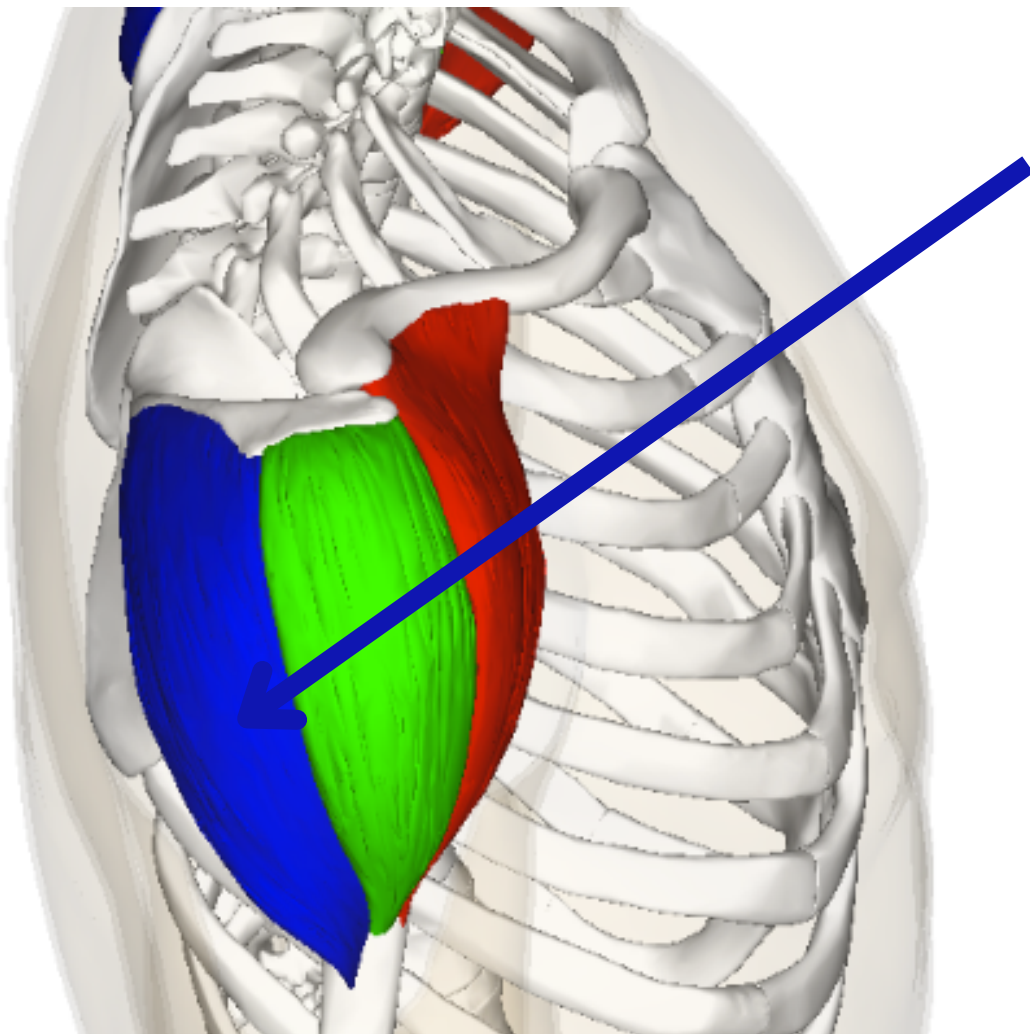
- Which of those two joint actions is the middle deltoid capable of producing?

Abduction

ANATOMY OF THE DELTOIDS:

Posterior Deltoid:

- **Origin:** Spine of scapula
- **Insertion:** Deltoid tuberosity of humerus
- **Actions:** Horizontal abduction, extension, and external rotation



TEST YOUR KNOWLEDGE: ANSWER KEY

Posterior Deltoid:

- What direction (plane) do the fibers of the posterior deltoid run?

Up and down

- In what plane/planes do you think this muscle will function best?

Sagittal/transverse

- When this muscle shortens which direction will it pull the arm?

Up and back

- What is the name of the joint action that occurs in that same direction?

Extension

- What happens when you raise your arm to the side by 90 degrees (elbow level with shoulder)? In what plane are the fibers aligned?

Transverse/horizontal



Complete review and bibliography:

Online Course:
"Lesson 8: Deltoids"

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