

DELTOID DISRUPTION



■ ■ ■ Description

Deltoid disruption is a partial or complete rupture of the deltoid muscle or its attachment to bone. The deltoid is the most important muscle for shoulder function and motion. With this rare injury, the deltoid muscle pulls off the roof of the shoulder (acromion), end of the collar bone, or part of the shoulder blade (scapula), resulting in loss of one attachment of the deltoid muscle and thus loss of function of this muscle. It is even less common for the deltoid to pull off the humerus (arm bone). This condition results in poor shoulder function.

■ ■ ■ Common Signs and Symptoms

- A “pop” or rip or tearing and severe sharp pain in the shoulder at the time of injury
- Tenderness, swelling, warmth or redness, and later bruising over and around the shoulder
- Pain and weakness trying to raise the arm to the side, inferior front, or behind, depending on the part torn
- Loss of contour of the shoulder; more evident when trying to contract the muscle or lift the arm
- Loss of firm fullness when pushing on the area where the tendon ruptured (a defect between the end of the muscle and bone where they are separated from each other)

■ ■ ■ Causes

- Sudden episode of stressful overactivity, particularly a major force to an already maximally contracted deltoid muscle
- Direct blow or injury
- Possibly throwing
- Shoulder surgery (particularly on the rotator cuff)

■ ■ ■ Risk Increases With

- Sports that require excessive deltoid muscle stress, especially throwing sports
- Contact sports
- Poor physical conditioning (strength and flexibility)
- Previous deltoid muscle injury or surgery requiring movement of the deltoid
- Oral anabolic steroid use

■ ■ ■ Preventive Measures

- Appropriately warm up and stretch before practice and competition.
- Allow time for adequate rest and recovery between practices and competition.
- Maintain appropriate conditioning:
 - Cardiovascular fitness
 - Shoulder flexibility
 - Muscle strength and endurance

■ ■ ■ Expected Outcome

- This condition is usually curable with early and appropriate treatment.

■ ■ ■ Possible Complications

- Weakness of the shoulder, especially if untreated
- Rerupture of the muscle after treatment
- Prolonged disability
- Risks of surgery, including infection, injury to nerves (numbness, weakness, or paralysis), bleeding, hematoma, shoulder stiffness, shoulder weakness, pain with strenuous activity, and recurrent disruption
- Loss of shoulder contour
- Inability to repair deltoid

■ ■ ■ General Treatment Considerations

Initial treatment usually consists of rest and icing the area. A sling may be given for comfort. Small or partial deltoid muscle injuries may be treated with heat, shoulder motion, stretching exercises, and gradual strengthening. These may be done with the assistance of a physical therapist or an athletic trainer. Treatment of larger or complete tears requires surgical exploration and repair. This can be difficult to perform because the deltoid does not have much tendon to hold sutures

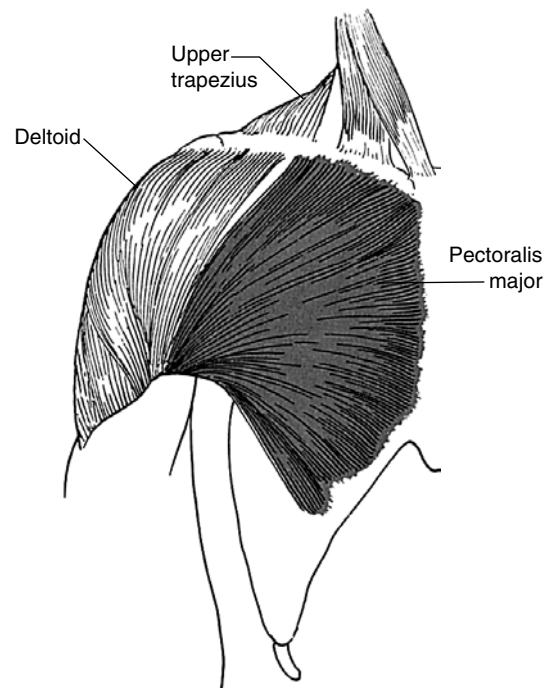


Figure 1

From Jenkins DB: Hollinshead's Functional Anatomy of the Limbs and Back, 6th ed. Philadelphia, WB Saunders, 1991, p. 79.

for repair. Tears in the mid-belly of the muscle are not amenable to repair. Delay in treatment also may not allow for surgical reattachment; thus early repair (within a few weeks) is often advocated. Without surgery, weakness and poor function of the shoulder will persist. After surgery and immobilization, physical therapy is usually needed to regain shoulder motion and strength.

■ ■ ■ Medication

- Nonsteroidal anti-inflammatory medications, such as aspirin and ibuprofen (do not take within 7 days before surgery), or other minor pain relievers, such as acetaminophen, are often recommended. Take these as directed by your physician. Contact your physician immediately if any bleeding, stomach upset, or signs of an allergic reaction occur.
- Pain relievers may be prescribed by your physician. Use only as directed and only as much as you need.

■ ■ ■ Cold Therapy

Cold is used to relieve pain and reduce inflammation. Cold should be applied for 10 to 15 minutes every 2 to 3 hours for inflammation and pain and immediately after any activity that aggravates your symptoms. Use ice packs or an ice massage.

■ ■ ■ Notify Our Office If

- Pain increases, despite treatment
- Any of the following occur after surgery:
 - Signs of infection, including fever, increased pain, swelling, redness, drainage, or bleeding in the surgical area
 - New, unexplained symptoms develop (drugs used in treatment may produce side effects)

Notes:

(Up to 4400 characters only)

Notes and suggestions