

# ROTATOR CUFF TEAR



## ■ ■ ■ Description

A rotator cuff tear is characterized by pain and weakness of the shoulder due to tearing of the rotator cuff tendons and is often associated with inflammation of the bursa (subacromial bursa). The rotator cuff is a series of four muscles that surround the ball of the shoulder (humeral head). The muscles attach to the shoulder blade on one side and to the humeral head on the other. The muscles attach to bone via tendons. The main function of the rotator cuff is to maintain the humeral head in the center of the socket. The rotator cuff is important in keeping the humeral head in the socket when initiating shoulder motion, such as to reach overhead or perform any activity that requires shoulder strength. The rotator cuff is also important in maintaining shoulder stability and in guiding shoulder motion.

## ■ ■ ■ Common Signs and Symptoms

- Pain around the shoulder, often at the outer portion of the upper arm
- Pain that is worse with shoulder function, especially when reaching overhead or lifting
- Aching when not using your arm; often, pain awakens you at night, especially when sleeping on the affected side
- Occasionally, tenderness, swelling, warmth, or redness over the outer aspect of the shoulder
- Loss of strength
- Limited motion of the shoulder, especially reaching behind (back pocket, bra) or across your body
- Crepitation (a crackling sound) when moving the shoulder
- Biceps tendon pain (in the front of the shoulder) and inflammation, worse with bending the elbow or lifting

## ■ ■ ■ Causes

- Strain from sudden increase in amount or intensity of activity
- Direct blow or injury to the shoulder
- Aging, degeneration of the tendon with normal use
- Acromial (roof of the shoulder) spur

## ■ ■ ■ Risk Increases With

- Contact sports, such as football, wrestling, and boxing
- Throwing sports, such as baseball, tennis, or volleyball
- Weightlifting and bodybuilding
- Heavy labor
- Previous injury to rotator cuff, including impingement
- Poor physical conditioning (strength and flexibility)
- Inadequate warm-up before practice or play
- Inadequate protective equipment
- Increasing age
- Spurring of the acromion
- Repeated cortisone injections

## ■ ■ ■ Preventive Measures

- Appropriately warm up and stretch before practice or competition.
- Allow time for adequate rest and recovery between practices and competition
- Maintain appropriate conditioning:
  - Cardiovascular fitness
  - Shoulder flexibility
  - Strength and endurance of the rotator cuff muscles and muscles of the shoulder blade
- Use proper technique.

## ■ ■ ■ Expected Outcome

Symptoms may resolve spontaneously. However, rotator cuff tears do not heal on their own. Surgery is often needed to optimize shoulder strength and alleviate pain.

## ■ ■ ■ Possible Complications

- Persistent pain that may progress to constant pain
- Shoulder stiffness, frozen shoulder, or loss of motion
- Persistent weakness
- Recurrence of symptoms, especially if treated without surgery
- Inability to return to same level of sports, even with surgery
- Risks of surgery, including infection, bleeding, injury to nerves, shoulder stiffness, weakness, retearing of the rotator cuff tendon, deltoid detachment, acromial fracture, excessive removal of acromion, and persistent pain

## ■ ■ ■ General Treatment Considerations

Initial treatment consists of medication and ice to relieve the pain, stretching and strengthening exercises, and modification of the activity that initially caused the problem to occur. These all can be carried out at home, although referral to a physical therapist or athletic trainer may be recommended. An injection of cortisone to the area around the tendon (within the bursa) may be recommended. In athletes, surgery is usually recommended to remove the chronically scarred bursa and spur from the acromion and repair the tendon to itself or back to bone. Surgery may be performed arthroscopically or with an open incision. Return to full activity usually requires 6 to 12 months.

## ■ ■ ■ 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.

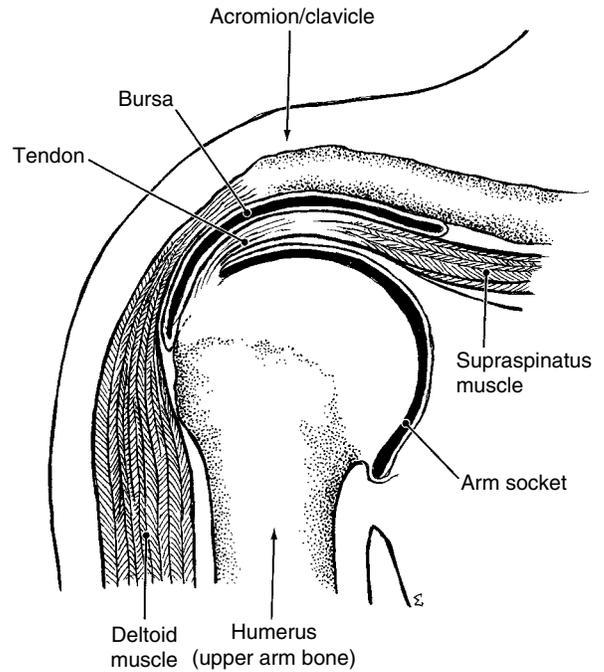
- Pain relievers are usually not prescribed for this condition. If your physician does prescribe pain medications, use only as directed.
- Cortisone injections reduce inflammation, and anesthetics temporarily relieve pain. There is a limit to the number of times cortisone may be given because it may weaken muscle and tendon tissue.

**■ ■ ■ Heat and Cold**

- Cold is used to relieve pain and reduce inflammation for acute and chronic cases. 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.
- Heat may be used before performing stretching and strengthening activities prescribed by your physician, physical therapist, or athletic trainer. Use a heat pack or a warm soak.

**■ ■ ■ Notify Our Office If**

- Symptoms get worse or do not improve in 4 to 6 weeks despite treatment
- You experience pain, numbness, or coldness in the hand
- Blue, gray, or dusky color appears in the fingernails
- New, unexplained symptoms develop (drugs used in treatment may produce side effects)



**Figure 1**

From Economou SG, Economou TS: Instructions for Surgery Patients. Philadelphia, WB Saunders, 1998, p. 549.

Notes:

(Up to 4400 characters only)

Notes and suggestions