

**Definition:** The rotator cuff is a common source of pain in the shoulder. Pain can be the result of:

- **Tendinitis.** The rotator cuff tendons can be irritated or damaged.
- **Bursitis.** The bursa can become inflamed and swell with more fluid causing pain.
- **Impingement.** When you raise your arm to shoulder height, the space between the acromion and rotator cuff narrows. The acromion can rub against (or "impinge" on) the tendon and the bursa, causing irritation and pain.

## Etiology and Risk Factors

- Rotator cuff pain is common in both athletes and non-athletes. Athletes who use their arms overhead for swimming, volleyball, baseball, and tennis are particularly vulnerable. Those who do repetitive lifting or overhead activities are also susceptible.
- Pain may also develop as the result of a minor injury. Sometimes, it occurs with no apparent cause.

## Anatomy

- Your shoulder is made up of three bones: humerus, scapula, and clavicle.
- Your arm is kept in your shoulder socket by 4 muscles that make up your rotator cuff (Supraspinatus, Subscapularis, Infraspinatus, Teres minor). These muscles and tendons form a covering around the head of humerus and attach it to your shoulder blade.
- There is a lubricating sac called a bursa between the rotator cuff and the acromion. The bursa allows the rotator cuff tendons to glide freely when you move your arm.

## Symptoms

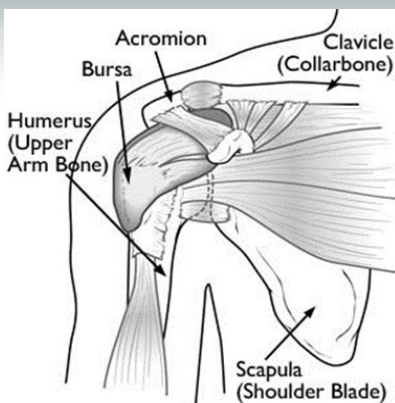
Rotator cuff pain commonly causes swelling and tenderness in the shoulder. You may have pain and stiffness when you lift your arm. There may also be pain when the arm is lowered from an elevated position. Beginning symptoms may be mild at the early stage

- Minor pain that is present both with activity and at rest
- Pain radiating from the front of the shoulder to the side of the arm
- Sudden pain with lifting and reaching movements
- Athletes in overhead sports may have pain when throwing or serving a tennis ball

As the problem progresses, the symptoms increase:

- Pain at night
- Loss of strength and motion
- Difficulty doing activities that place the arm behind the back

If the pain comes on suddenly, the shoulder may be severely tender. All movement may be limited and painful.



## Patient Education

To prevent shoulder pain

- Avoid repetitive movements
- Ice shoulder after sports
- Develop shoulder strength
- Focus on proper posture

## Prognosis

Many people recover with full function and strength after the combination of medication, physical therapy and steroid injections from rotator cuff tendinitis and shoulder impingement. Decreasing repetitive movements either in sports or at your job may need to change to remain pain-free.

After surgery, outcome is dependent upon the size of the tear and how long the tear has been present, as well as age and pre-injury level of function.

It can take 2 to 4 months to achieve complete relief of pain and restore range of motion, but it may take up to a year to gain strength and normal function.

## Treatment

The goal of treatment is to reduce pain and restore function.

### Nonsurgical Treatment

Initial treatment is nonsurgical and may take several weeks to months; many patients experience a gradual improvement and return to function.

**Rest.** Your doctor may suggest rest and activity modification, such as avoiding overhead activities.

**Non-steroidal anti-inflammatory medicines.** Drugs like ibuprofen and naproxen reduce pain and swelling.

**Physical therapy.** A physical therapist will initially focus on restoring normal motion to your shoulder and reducing pain. Stretching exercises will improve range of motion along with and maintain function. Once your pain is decreased and motion is normal you can start strengthening the rotator cuff muscles and return to normal activities.

**Steroid injection.** If rest, medications, and physical therapy do not relieve your pain, your doctor may suggest a cortisone shot. Cortisone is a very effective anti-inflammatory medicine. Cortisone usually works within a few days and can last for several weeks.

### Surgical Treatment

When nonsurgical treatment does not relieve pain, your doctor may recommend surgery.

The goal of surgery is to create more space for the rotator cuff. To do this, your doctor will remove the inflamed portion of the bursa. He or she may also perform an anterior acromioplasty, in which part of the acromion is removed. This is also known as a subacromial decompression. These procedures can be performed using either an arthroscopic or open technique.

Your surgeon may also treat other conditions present in the shoulder at the time of surgery. These can include arthritis between the clavicle (collarbone) and the acromion (acromioclavicular arthritis), inflammation of the biceps tendon (biceps tendonitis), or a partial rotator cuff tear.

After surgery, your arm may be placed in a sling for a short period of time. Your doctor will recommend physical therapy to focus on restoring normal motion to your shoulder and reducing pain.