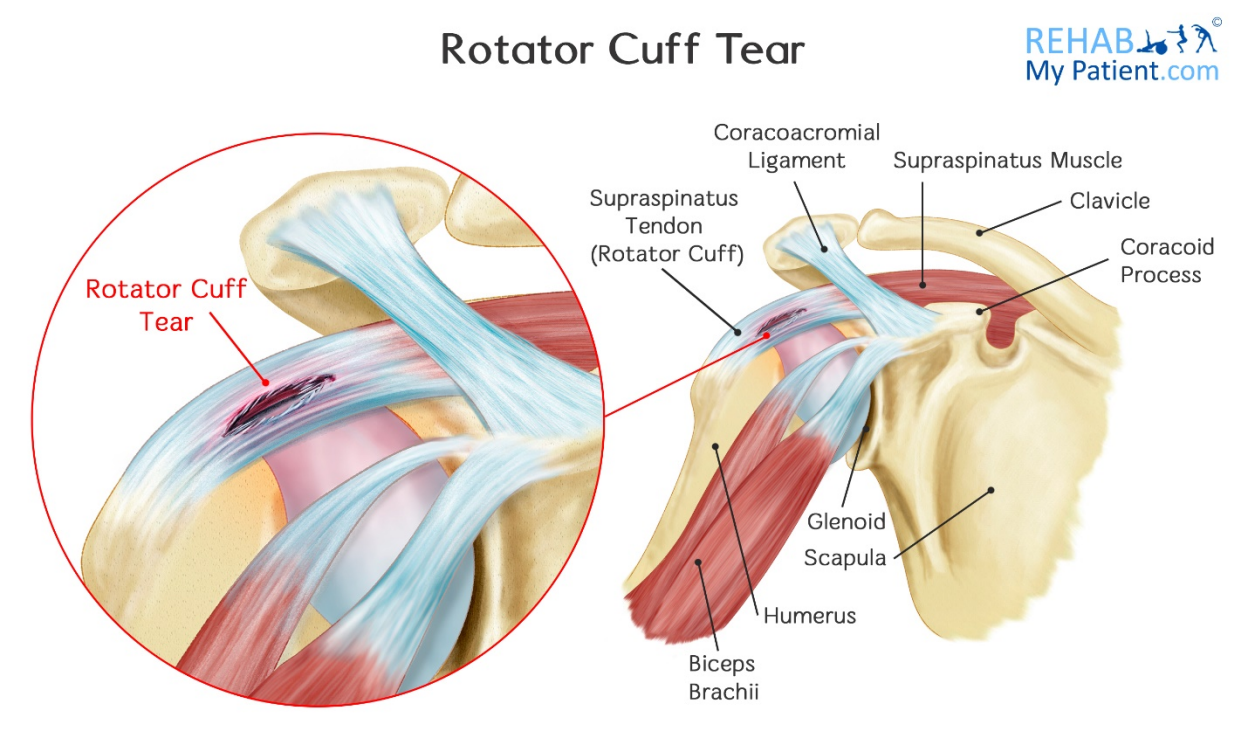
Rotator Cuff Tear

A rotator cuff tear is one of the more common causes of disability and pain amongst adults. Back in 2008, close to two million individuals in the United States went to see their doctor because of a problem with their rotator cuff. Torn rotator cuffs will cause the shoulder to weaken. Daily activities, such as getting dressed and putting on clothes can be painful and difficult to do.

Rotator Cuff Tear Anatomy

The rotator cuff is composed of four different muscles that join together as tendons and form a covering surrounding the head of the humerus. The rotator cuff connects the humerus to the shoulder blade and aids in rotating and lifting your arm. While all four rotator cuff muscles can tear, the most common by far is the supraspinatus muscle.



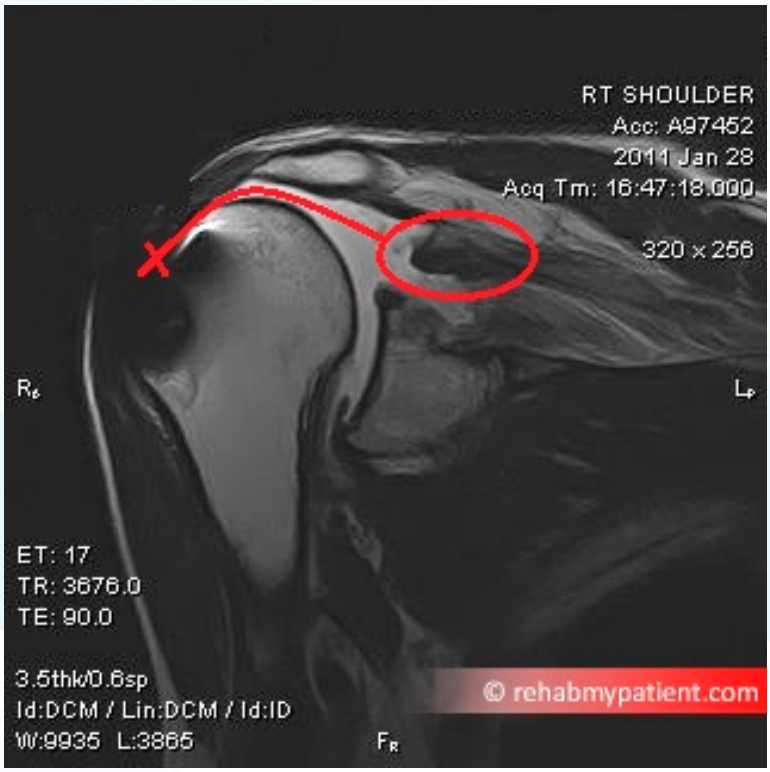
The supraspinatus sits above the spine of the shoulder blade, and attaches to the top of the arm bone (humerus) via a tendon. A rotator cuff tear most commonly relates to a tear of this tendon.

Tears Are Usually Classified Into the Following:

- Fraying of the supraspinatus tendon (usually occurs along the top of the tendon).
- Partial thickness tear (the tear goes partially though the width of the tendon).
- Full thickness tear (the tear goes all the way through the tendon).
- Rupture (the tendon is completely split into two parts.
- Retraction (the tendon has split into two parts, and one part has migrated towards the shoulder blade).

There is a lubricating sac known as the bursa that lies between the rotator cuff and the bone that sits on the top of the shoulder. The bursa allows the rotator cuff tendons to freely glide whenever you move your arm. When the tendons are damaged or injured, the bursa will become painful and inflamed. So it is not uncommon to have “subacromial bursitis” with a rotator cuff tear.

The problem usually occurs under a joint known as the AC Joint (acromioclavicular joint), which is a joint that sits next to the shoulder joint (the main ball and socket joint).



An MRI scan showing a full rupture with retraction of the supraspinatus tendon. The tendon should join where the X is.

How Do Rotator Cuff Tears Occur?

Rotator cuff tears usually occur due to one of two ways: degenerative, and trauma.

1. **Degeneration:** due to osteoarthritis of the AC Joint and degeneration of the supraspinatus tendon. The osteoarthritis may form small rogue pieces of bone called osteophytes and these can impinge into the tendon, causing a tear.
2. **Trauma:** falling over and landing on the shoulder, or an outstretched arm is a common way to damage the rotator cuff tendon. Also sports injuries can cause it too.

How to Treat a Rotator Cuff Tear:

1. **Physiotherapy / Manual Therapy**
   It’s important to see a physical therapist to assess the damage. If the tear is likely to be bad, your therapist may refer you for an ultrasound scan or MRI scan. If the tear is small, the therapist will probably start rehabilitation. This will involve increasing mobility to your shoulder, reducing inflammation and stability exercises.

2. **Modification of Activities**
   Avoid any activities that cause pain in the shoulder, especially sleeping on the affected side, and lifting your arm to the side or above your head.

3. **Anti-Inflammatory Medication**
   An anti-inflammatory medication can help to reduce the swelling and pain in the affected area. Use this for 2 weeks to get you over the initial pain.

4. **Exercises**
   Specific types of exercises will often help to restore movement and strengthen the joint. The exercise program will include a variety of different stretches for improving movement and flexibility. When you strengthen the muscles that support the shoulder, you can relieve pain and prevent any further injury from occurring.

5. **Rotator Cuff Repair Surgery**
   Rotator cuff surgery is commonly recommended with large tears, especially if pain is very bad or the shoulder is very weak. However, rehabilitation time can be long (6-9 months) and there is a risk of frozen shoulder following the surgery.

6. **Steroid Injection**
   If physical therapy, medication and rest aren't able to relieve your pain, you might need an injection of a local anesthetic and cortisone. This is one of the most effective types of an anti-inflammatory medication. The injection can help reduce the inflammation but will not help the tendon to heal.

Tips:

- Try to avoid falling on an outstretched arm or lifting an object that is too heavy using a jerking motion. In doing so, you could end up tearing your rotator cuff.
- Repeating the same activity and motion over and over will cause stress on the tendons and muscles of the rotator cuff. Tennis, baseball, weightlifting and rowing are all examples of activities that leave you at risk for tearing the tendon.
- As you age, the blood supply to the tendon lessens. If there isn't a good blood supply, the ability of the body to repair damage to the tendon is hindered.
- As you grow older, bone spurs will often develop on the underside of the shoulder bone. Whenever the arms are lifted, the spur will rub on the rotator cuff, which weakens it and leaves it prone to tearing.
- Carpenters, painters and others performing a great deal of overhead work are more prone to tearing.