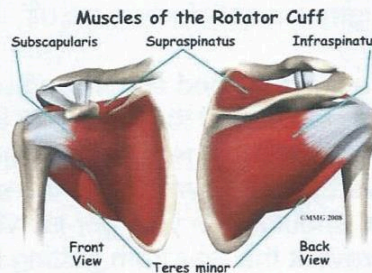


## Your diagnosis is a torn rotator cuff tendon(s).

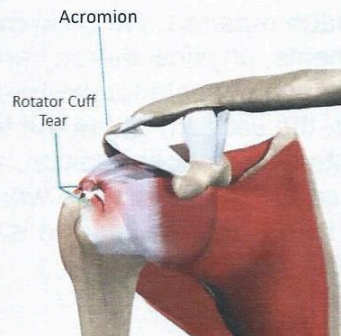
### What is the rotator cuff?

Your rotator cuff is made up of four of the muscles and tendons in your shoulder. These muscles and their tendons connect your upper arm bone with your shoulder blade. They also help hold the ball of your upper arm bone firmly in your shoulder socket. This structure allows the shoulder the greatest range of motion of any joint in the body and the combination of the tendons is able to support over 5000 pounds of pressure.



### What causes a rotator cuff tear?

A rotator cuff tear may result from an acute injury such as a fall, or may be caused by chronic wear and tear which results in degeneration of the rotator cuff tendons. Impingement (compression) of the tendon against the acromion as the arm is raised is believed to be a major cause of cuff tears in individuals older than 40 years.



## **What are the symptoms of a rotator cuff tear?**

The most common symptom of a rotator cuff tear is pain in the front of the shoulder that radiates down the side of the arm. This may be present with overhead activities such as lifting or reaching. Activities that require reaching above the head – like combing your hair or reaching up to a high shelf – can be difficult and painful. Other symptoms include weakness and limited motion. Night pain is common and can affect sleep.

## **How is a rotator cuff tear treated?**

Non-surgical treatment of rotator cuff tears includes the use of anti-inflammatory medication, steroid injections, and physical therapy. The goal is to relieve pain and restore strength to the involved shoulder. Non-surgical (conservative management) will not result in healing of the rotator cuff tear but for some people the relief of pain and return of some functional strength is a satisfactory result.

The rotator cuff tendons have a limited blood supply and without a good blood supply tissues of the body are less able to heal. If the tendon of the rotator cuff has a full thickness (complete) tear, the tendon may need to be repaired surgically. The choice of surgery will depend on the severity of the symptoms, the extent of the tear, and the functional requirements for that shoulder. In younger individuals, repair of the tendon is most often recommended to prevent the tear from getting bigger. If chronic pain and disability are present at any age, repair of the rotator cuff should be considered.

Surgery to repair a torn rotator cuff is usually very successful at relieving pain in the shoulder but it does not always result in a return of the strength of the shoulder.

## **What will happen if the rotator cuff is not repaired?**

It is difficult to predict long-term outcomes for patients with complete rotator cuff tears who choose not to have the tendon repaired. We do know the tendon will not heal without surgery but in some patients, physical therapy and rest will allow for the remaining rotator cuff tendons to compensate for the torn tendon. However, for patients with a complete rotator cuff tear, the concern is that the tear will continue to get bigger, causing increased pain and limited function. In addition, when the tendon is completely torn off of the bone, the rotator cuff muscle begins to weaken (atrophy), and essentially die. If the tear is long standing, sometimes the muscle is too atrophied to repair and surgical options become limited.

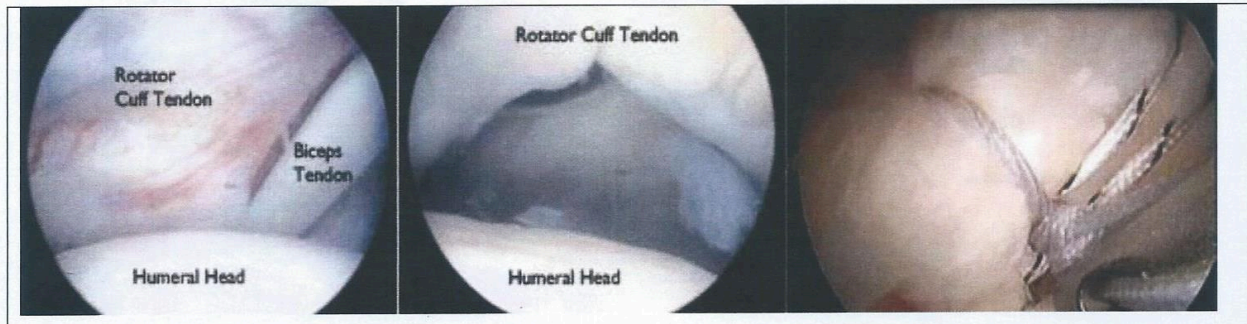
## What is the surgery for a torn rotator cuff?

Surgery to repair a torn rotator cuff most often involves re-attaching the tendon to the head of humerus (upper arm bone). A partial tear, however, may need only a trimming or smoothing procedure called a debridement. A complete tear within the thickest part of the tendon is repaired by stitching the two sides back together.



This tendon takes a long time to heal - at three months it is about 50% healed and at six months it is about 80% healed. This is why there is such a slow and conservative rehabilitation.

The following images show the rotator cuff and the repair through the arthroscope:



Normal tendon

Torn tendon

Repaired tendon

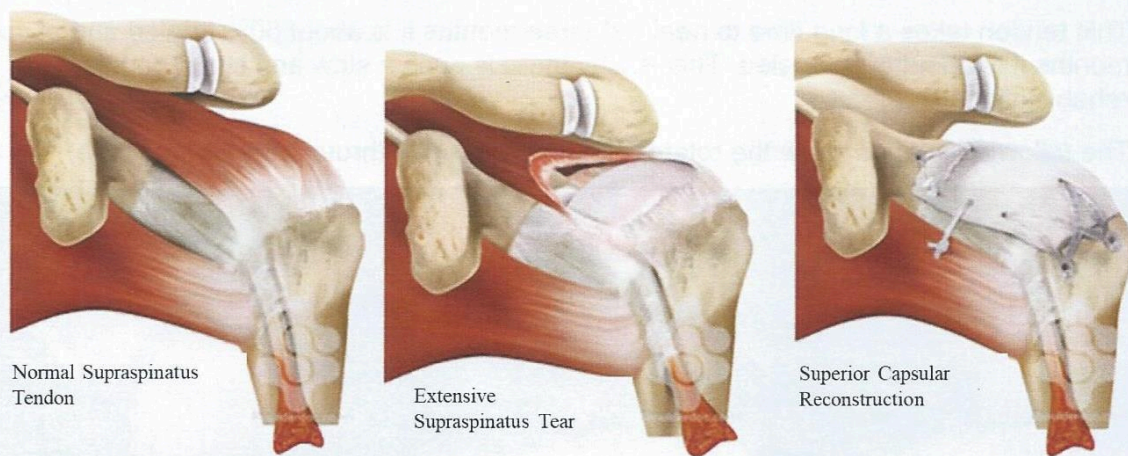
Any bone spurs will be removed/smoothed, and if needed, the end of the collar bone (clavicle) will also be removed. The surgery usually takes one to two hours.

### What if the cuff tear is very large or not able to be repaired?

If the tear in the supraspinatus tendon (rotator cuff tendon that is at the top of the shoulder) is too large repairing it by suturing the tear back to the bone may not be possible. In this case, a Superior Capsular Reconstruction may be considered.

The superior capsule of the shoulder joint is the upper part of the lining (capsule) of the joint. The superior capsule helps to center the humeral head on the glenoid socket which helps to raise the arm. This is typically the role of the supraspinatus tendon but the situation where there is has a large tear it cannot function in this manner.

Reconstruction of the superior capsule is an arthroscopic procedure where allograft tissue is attached to the top of the shoulder joint, spanning from the top of the glenoid to the top of the humeral head – in the same area where the supraspinatus tendon passed. The rotator cuff tendon in the area is cleared of damaged tissue but as much of the muscle and tendon is left in place as possible.



### What is the recovery like from surgery to repair a rotator cuff tear?

Rotator cuff repair can require a long recovery period, especially if the tear was large. Diligence with outpatient physical therapy and a home exercise program are extremely important to achieve the best result possible.

Some of the pre-repair symptoms may continue for a number of months after surgery. You may continue to feel pain when you try to sleep on the affected side. In addition, you may note weakness of your arm and difficulty with routine activities such as combing your hair or reaching behind your back.

Returning to work or playing sports will depend on the surgery that was performed, but it will usually take several months to resume your regular activities.