



PATIENT GUIDE TO ROTATOR CUFF INJURIES

What is the rotator cuff?

The rotator cuff is made up of four muscles and their tendons. The muscles attach at the shoulder blade (scapula) and extend out to form a cuff around the shoulder joint and insert at the upper portion of the arm (humerus). These four muscles are the supraspinatus, subscapularus, infraspinatus, and teres minor. These four muscles help to elevate and rotate the arm. In addition, these muscles help to stabilize the ball of the shoulder joint (humeral head) in the shallow socket of the shoulder blade (glenoid). The rotator cuff works especially hard to stabilize the shoulder when the arm is in the overhead position. This is why overhead activities can cause pain in someone with a rotator cuff injury.

What is a rotator cuff injury?

Most rotator cuff injuries are an inflammation of the tendon called tendonitis. The tendon gets overworked or sometimes gets pinched between the bones of the shoulder and becomes inflamed. This term is “impingement syndrome”. In addition, there is a bursa which lies between the rotator cuff and the bone of the scapula (acromion). This bursa is a fluid filled sac that reduces the friction between the tendon and the acromion. Sometimes this subacromial bursa becomes inflamed along with the tendon, a condition called “bursitis”.

Sometimes the tendonitis will progress to the point that the tendon becomes frayed or torn. Tears of the rotator cuff can be partial thickness tears only go part way through the tendon. Full thickness tears extend all the way through the tendon, and the tendon is detached from the bone. Once a rotator cuff tear has occurred they do not heal.

How is the rotator cuff injured?

Most commonly, the rotator cuff tendons wear and weaken with use until they eventually tear. In addition, in a tendon that already has some “wear and tear” a small amount of

trauma, such as a pulling or lifting injury, can lead to a full thickness tear. Occasionally, there is a severe traumatic injury that also may cause the tear, such as an accident or fall. Rotator cuff tears occur most commonly in patients age 50 and older, and in people who play sports or perform a lot of overhead work.



How do I know my rotator cuff is injured?

Injuries to the rotator cuff most typically cause pain, especially with overhead activities. In addition, rotator cuff injuries or tears cause shoulder pain at night and lead to difficulty sleeping. Most patients that have a rotator cuff injury will complain of pain on the lateral or side of the shoulder. With large rotator cuff tears you may notice weakness in doing overhead activities. You may also have pain with activities of daily living, such as dressing, bathing, and reaching outward.

Do I need x-rays, a MRI, or any other test?

A set of x-rays is usually ordered to evaluate the bones around the shoulder. The bone above the rotator cuff, called the acromion, can be hooked, or have a bone spur, which leads to pinching and irritation of the rotator cuff. The x-rays are also used to evaluate for arthritis of the shoulder joint (glenohumeral joint), and acromio-clavicular joint (AC joint). A MRI Arthrogram may be ordered if a rotator cuff tear is suspected, or if the patient is not improving with conservative treatment.



Is there other damage to the shoulder when the rotator cuff is injured?

There is frequently other damage to the shoulder that can occur with rotator cuff injuries. The biceps tendon, which runs from the muscle in the front of the arm to the top of the shoulder joint, can become frayed or torn. You can also tear the labrum is a fibrous ring of tissue that surrounds the shoulder socket. In addition, the acromioclavicular joint, the joint on top of the shoulder, can become damaged or arthritic. Arthritis of the acromioclavicular joint commonly occurs along with rotator cuff injuries or tears.

What are the treatment options for rotator cuff injuries?

Many patients with a rotator cuff injury improve with conservative treatment. The treatment includes exercises, use of anti-inflammatory medications (NSAIDs), and possibly an injection of steroid (cortisone injection). The exercises may be a program

you can do at home, or more commonly a formal physical therapy program. A cortisone injection is commonly used in patients that do not get better with therapy or in severe cases. Many patients get better with these treatments and do not need surgery.

If patients do not get better with conservative therapy, or have an acute rotator cuff tear, surgery may be necessary.

How are rotator cuff injuries treated with surgery?

The surgery for rotator cuff injuries depends on the extent of the problem. Most rotator cuff tears can be repaired arthroscopically. The arthroscope is a fiber optic instrument (narrower than a pen) which is put into the joint through small incisions. A camera is attached to the arthroscope which allows me to fully evaluate the entire shoulder joint, including the ligaments, the rotator cuff, the labrum, and the cartilage surfaces. Small instruments ranging from 3-5 millimeters in size are inserted through additional incisions so that I can feel the joint structures for any damage, diagnose the injury, and then repair, reconstruct, or remove the damaged tissue. For cases involving bad tendonitis or partial thickness rotator cuff injuries the entire procedure is done with the arthroscope. The under side of the acromion is shaved down (an acromioplasty or decompression) which allows the rotator cuff to glide better, and not get pinched. If the rotator cuff is frayed, it is cleaned up (debrided).

For cases involving full thickness tears of the rotator cuff, the tear can sometimes be repaired completely arthroscopically. The bone is prepared for the tendon to be reattached, and then metal anchors (titanium suture anchors) are placed in the bone which contain sutures. These sutures are then weaved through the tendon, and the tendon is mobilized back to its bony attachment. These metal anchors are deep in the bone and do not need to be removed.

If the tear is large or longstanding, the surgery in rare cases needs to be performed with an open incision. This incision is placed in the area of the rotator cuff on the side of the shoulder, and the repair is performed with suture anchors and bone tunnels. This is called a “belts and suspenders” repair, which is the strongest repair that can be performed. This is called a “mini-open” rotator cuff repair.



What if I have pain or arthritis of my acromioclavicular (AC) joint?

Pain directly on top of the shoulder in the acromioclavicular (AC) joint can be treated with surgery. The surgery is to remove a small portion of the end of the clavicle bone, to eliminate rubbing between the bones. This then eliminates the pain. This procedure can be performed with the arthroscope or through a small 1 inch incision. There is no significant problem with arm strength when the end of the clavicle is removed.

What are some of the possible complications?

While complications are not common, all surgery has associated risk. Possible complications include stiffness of the shoulder after surgery or recurrent pain. Other

complications include an infection, bleeding, nerve damage, or problems with the anesthesia.

What do I need to do to prepare for surgery?

Our staff will help to set up the surgery through your insurance company and will instruct you on any paperwork that may be necessary. If you are over the age of 50, or have significant health conditions you may require an EKG and chest x-ray. You may also need to see your internist or family doctor to obtain a Letter of Medical Clearance. The day before the surgery, a member of the hospital or surgery center staff will contact you about what time to arrive for surgery. You may not eat or drink anything after midnight before your surgery.

How long will I be in the hospital?

Almost all patients are able to have surgery and go home the same day. Occasionally, patients will be admitted for an overnight stay.

What happens the day of surgery?

The day before surgery you will be told what time to report to the hospital. You will be admitted and taken to a pre-operative holding area where you are prepared for surgery. You will be asked several times which extremity I am operating on, this question is asked many times on purpose.

After the operation, you will be taken to the recovery room to be monitored. Once the effects of anesthesia have worn off and your pain is under control, you will be given your post-operative instructions and a prescription for pain medication. Please be aware that the process of getting checked in, prepared for surgery, undergoing the operation, and recovering from the anesthesia takes the majority of the day. I would recommend that you and your family members bring some reading material to help make the process easier.

How should I care for my shoulder after surgery?

Prior to your discharge, you will be given specific instructions on how to care for your shoulder. In general you can expect the following:

Diet:

Resume your regular diet as soon as tolerated. It is best to start with clear liquids before advancing to solid food.

Medication:

You will be given a prescription for pain medication before you go home.

Sling:

You will have a sling, which you will use for the first 2 to 4 weeks. You can remove the sling for showering, performing your home exercise program.

Ice:

You should apply ice over the dressing for 30 minutes every 1 to 2 hours for several days. Do not use heat the first week after surgery. You may be given a cold therapy unit the day of surgery.

Suture Removal:

Absorbable sutures do not need to be removed. There may be non-absorbable suture, and it will be removed on your first post-operative visit.

Follow-up office visit:

You will be instructed on when to follow-up in the office. This is usually 2 weeks after surgery.

Exercise:

You will be instructed prior to your surgery on exercise to begin the day after your surgery. You will start formal physical therapy anywhere from 2 days to 2 weeks post op.

Return to school or work:

You can return to school or work when your pain is under control, and you can manage your daily activities. If you need to use the arm to return, you may be out of work or school for a longer period of time.

What will rehabilitation involve?

The rehabilitation is based on several goals: 1) allowing the tissue to heal; 2) regaining your range of motion; 3) regaining strength; 4) return to full duty at work, or return to sports.

When can I return to sports?

In general, you will be allowed to return to sports in 4 - 6 months after surgery. You must have good motion, strength, and control of your shoulder and arm. How quickly you return to sports depends on several factors, including: 1) your own rate of healing; 2) the damage found at surgery; 3) if you have any complications (like stiffness); 4) how well you follow the post-operative instructions; 5) how hard you work in rehabilitation.

When can I return to full duty at work?

In general I keep people on clerical duties for 3 months after the surgery, which means no lifting with your operated arm. This is to protect the repair. In the 3rd and 4th month I allow you to perform light duty meaning lifting no more than 10 pounds. People generally get back to performing full duty at work from 4 to 6 months.

What is the success rate?

The success rate for a rotator cuff repair ranges from 85 to 95% for attaining pain relief. If weakness is a significant problem, the results for regaining strength can be more variable.

To schedule an appointment with one of our shoulder specialist please call:
(314) 336-2555.