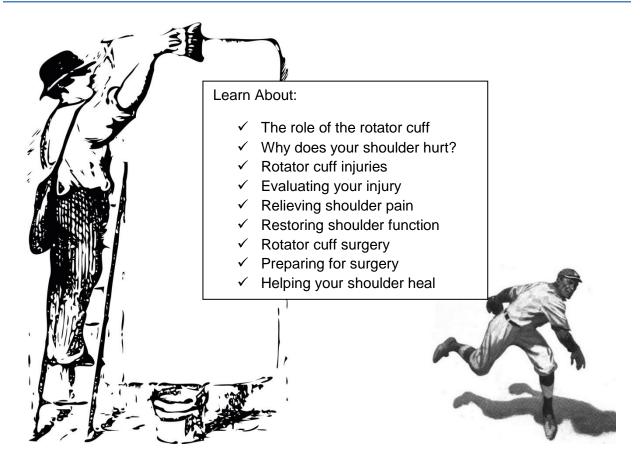
Rotator Cuff Injuries



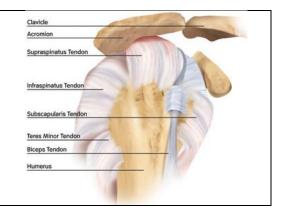
A rotator cuff injury can make everyday activities painful. You may have pain at work, at play, or even at rest.



The Role of the Rotator Cuff

The **rotator cuff** is the group of muscles and their tendons that act to stabilize the shoulder as you work or play. The components of your shoulder, along with the muscles of your upper body, work together to manage the stress your shoulder receives as you extend, flex, lift and throw. An injury can cause pain and weakness in your shoulder.

The **coracoid** and **acromion** are two parts of the scapula. The **bursa** is a fluid-filled sac that cushions the rotator cuff. **Tendons** are touch cords of connective tissue that attach the rotator cuff muscles to the humerus. The rotator cuff consists of four muscles: the **supraspinatus** runs over the top of the humeral head. The **subscapularis** runs across the front of the humeral head. The **infraspinatus** and **teres minor** both run across the balc of the humeral head.



Why Does Your Shoulder Hurt?

Your shoulder hurts because tissues in the shoulder are swollen or damaged. This damage may have been caused by:

- Repetitive Movements that involve reaching above your head, lifting heavy objects and throwing
- A sudden injury such as a fall on your shoulder or arm
- Age: The older you get, the weaker the rotator cuff becomes. It can then be injured more easily

Use the checklist provided to help you identify what causes	Do you have pain when you:	Yes	No
your pain	Scratch your mid-back?	0	0
	Throw a ball overhead?	0	0
	Comb your hair?	0	0
	Raise your arm?	0	0
	Sleep on your shoulder?	0	0
	Carry a suitcase?	0	0
	Are at rest?	0	0

Rotator Cuff Injuries

Tendonitis: is a common injury that often occurs from repetitive activities such as throwing or reaching overhead, which can strain your rotator cuff tendons. Tendonitis can cause deep, nagging pain that is caused by inflammation of tendons. Treating tendonitis consists of rest, medication, physical therapy or changes to equipment or technique.

Impingement syndrome: when the tendons of the rotator cuff muscle become irritated and inflammed as they pass through the subacromial space, the passage beneath the acromion. Inflammation can reduce this space, squeezing the soft tissues painfully against the bone. This can result in pain, weakness and loss of movement at the shoulder.

Calcific tendonitis and bursitis: is a sudden or chronic injury and inflammation which can cause calcium deposits to form in your rotator cuff. When depositis form within the tendons of the cuff, it is called calcific tendonitis. When depositis build in the bursa, it is called calcific bursitis. These hard depositis irritate the soft tissues of the joint.

Partial and/or complete tears: of the rotator cuff muscles or tendons can be caused by severe tendonitis or a sudden injury. In some cases, only a small bit of tendon will tear (partial tear). Or, the tendon may tear all the way through (complete tear). This can result in pain and may cause shoulder weakness.

Evaluating Your Injury

Your physician will evaluate your shoulder to help decide how best to help your injury heal. Your physician may begin by asking about your shoulder pain. The doctor will then feel and move your shoulder to check for sigs of weakness. Tests of your shoulder's movement, such as range of motion, will tell the doctor about your rotator cuff's flexibility, strength and stability. Your doctor may also order imaging tests, which will tell your physician even more about your injury. Imaging tests can include X-rays, magnetic resonance imaging (MRI), and arthrograms. Other tests such as ultrasound may also be used.

Relieving Shoulder Pain

The goal of treatment is to reduce pain and restore function. In most cases, initial treatment is nonsurgical. Although nonsurgical treatment 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.

Ice: Applying ice on a swollen area helps reduce inflammation nd helps to relieve the pain. Apply an ice pack for 15 minutes at a time, 2 to 3 times per day. As a convenience alternative, you can use a bag of frozen peas, which will conform easily to your shoulder's shape.

Heat: Heat application helps to soothe your sore muscles, though it doesn't actually reduce inflammation. Apply heat several times a day for 10 or 15 minutes at a time.

Non-steroidal anti-inflammatory medicines: Drugs like ibuprofen and naproxen reduce pain and swelling. Since any anti-inflammatory medications can be harsh on your stomach, thye should be taken with a full meal.

Restoring Shoulder Function

Shoulder exercises are designed to help restore your shoulder's function. Improving your flexibility can reduce pain. Stretching exercises also can help increase your range of pain-free motion. Depending on your injury, shoulder exercises may be assigned before or after your surgery. Follow all exercise instructions from your healthcare provider carefully.

 Pendulum Exercise - will help develop a full range of motion without pain. 1. Lean over with your good arm supported on a table or chair. Relax the arm on the injured side, letting it hang straight down. 2. Slowly move the relaxed arm in a small circle. Rotate 20 times. Reverse direction and repeat. Then, slowly swing the arm back and forth. Next, swing it side-to-side. *** Do this exercise 3 times a day. Do each arm movement 20 times in each direction. 	PENDULUM EXERCISES
 Wall Walk Stand with your injured shoulder about 2 feet away from a wall. Raise your arm to shoulder level and gently "walk" your fingers up the wall as high as you comfortably can. Hold for 10 seconds. Then walk the fingers back down. Repeat 3 to 5 times. *** Ask your healthcare provider if it is safe for you to do this stretch. 	
 Pretzel Twists - helps stretch and strengthen shoulders. Reach the injured arm over your good shoulder, keeping your arm level. Use the back of your good hand to gently press your injured arm toward your shoulder. Repeat 1 to 3 times, holding for 10 to 15 seconds. Reach behind your head with your good arm, holding a towel. Grasp the towel behind your back with your injured arm. Gently pull up with your good hand. Repeat 1 to 3 times, holding for 10 to 15 seconds. Place your hands together behind your body. Gently use your good hand to lift your injured arm up and back. Repeat 1 to 3 times, holding for 10 to 15 seconds. 	
 Internal Rotation Attach rubber tubing or a bungee cord to a doorjamb or other stationary object. Stand with your injured side toward the door – far enough away that the tubing is just starting to stretch. Keeping your elbow against your side and your arm in an "L" shape, slowly pull the tubing across your body. Slowly return to the starting position. Repeat 5 to 15 times. 	

Extern	al Rotation		
1.	Attach rubber tubing or a bungee cord to a doorjamb or other stationary object.		
2.	Stand with your injured side <i>away</i> from the door – far enough that the tubing is just starting to stretch.		
3.	Keeping your elbow against your side and your arm in an "L" shape, slowly pull the tubing away from your body.	- Au	Lin the
4.	Slowly return to the starting position. Repeat 5 to 15 times.	1.2 01	, , , , , , , , , , , , , , , , , , ,
Scapul	ar Stabilization		
1.	Lean over with your good arm supported on a table or chair. Relax the arm on the injured side, letting it hang straight down. Form your hand into a loose fist.		
2.	Keep your shoulder down and your arm straight. Lift your arm up and away from your body until it points straight out.		
3.	Hold for 5 seconds, then slowly lower your arm back to its starting position. Repeat 10 times.		
	Note: If your elbow starts to feel tired or sore, you can change your arm position. Flex the elbow gently inward, so the arm no longer makes a straight line.		

Rotator Cuff Surgery

Rotator cuff surgery can help correct problems like impingement, calcium deposits, or tears . Your doctor may recommend surgery for a torn rotator cuff if your pain does not improve with nonsurgical methods. Continued pain is the main indication for surgery. If you are very active and use your arms for overhead work or sports, your doctor may also suggest surgery.

Other signs that surgery may be a good option for you include:

- Your symptoms have lasted 6 to 12 months
- You have a large tear (more than 3 cm)
- You have significant weakness and loss of function in your shoulder
- Your tear was caused by a recent, acute injury

Preparing for the Procedure

Your hospital or surgery center will contact you with specific details about your appointment. You will likely be asked to arrive at the hospital an hour or two before your surgery. Do not eat or drink anything after midnight the night before your surgery. You will most likely be admitted to the hospital on the day of your surgery. Be prepared by bringing clothing such as undergarments, socks; and footwear. Prior to admission, a member of the anesthesia team will evaluate you.

The Procedure

The three techniques most commonly used for rotator cuff repair include traditional open repair, arthroscopic repair, and mini-open repair. The type of repair performed depends on several factors, including your surgeon's experience and familiarity with a particular procedure, the size of your tear, your anatomy, and the quality of the tendon tissue and bone. You may have other shoulder problems in addition to a rotator cuff tear, such as osteoarthritis, bone spurs, or other soft tissue tears. During the operation, your surgeon may be able to take care of these problems, as well.

Many surgical repairs can be done on an outpatient basis and do not require you to stay overnight in the hospital. Your orthopedic surgeon will discuss with you the best procedure to meet your individual health needs.

Beginning Your Recovery

After surgery, you will need to protect your healing shoulder. You may be told to use an ice pack and a sling. Depending on the type of surgery you had, you may be asked not to use your shoulder at all until cleared to do so. Once your shoulder has healed enough, your doctor or physical therapist will have you gently move your shoulder to prevent stiffness and swelling. A rehabilitation program will likely be prescribed to help you restore your shoulder's range of motion. Talk to your surgeon or physical therapist to see what kinds of movement are safe for you.

Hospital Post-Op

You may be given pain medication at the hospital, as well as a prescription to help alleviate any later discomfort. The nurse who has been monitoring your blood pressure and pulse will then arrange for your release once you are clear-headed and alert. Before surgery, arrange to have a friend or member of your family drive you home after you leave the hospital. Comfortable, loose-fitting clothes are recommended during the early days of recovery.

Home Care

The success of your surgery will depend in large on how well you follow your orthopedic surgeon's instructions regarding home care during the first few weeks after surgery. You will have stitches or staples running along your wound or a suture beneath your skin. Avoid getting the wound wet until it has thoroughly sealed and dried. A bandage may be placed over the wound to prevent irritation from clothing or support stockings.