

Before you start your exercises

The exercises described below are to help you strengthen the muscles in your shoulder (especially the rotator cuff --the part that helps circular motion--muscles). These exercises should not cause you pain. If the exercise hurts, stop exercising. Start again with a lighter weight.

Look at the pictures with each exercise so you can use the correct position. Warm up before adding weights. Stretch your arms and shoulders, and do pendulum exercises: Bend from the waist, letting your arms hang down. Keep your arm and shoulder muscles relaxed, and move your arms slowly back and forth. Perform each exercise slowly: Lift your arm to a slow count of 3 and lower your arm to a slow count of 6.

Keep repeating each exercise until your arm is tired. Use a light enough weight that you don't get tired until you've done the exercise about 20 to 30 times. Increase the weight a little each week (but never so much that the weight causes pain). Start with 2 ounces the first week. Move up to 4 ounces the second week, 8 ounces the next week and so on.

Each time you finish doing all 4 exercises, put an ice pack on your shoulder for 20 minutes. It's best to use a plastic bag with ice cubes in it or a bag of frozen peas, not gel packs. If you do all 4 exercises 3 to 5 times a week, your rotator cuff muscles will become stronger, and you'll get back normal strength in your shoulder.

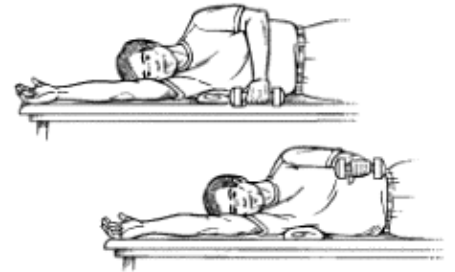
Exercise 1



Start by lying on your stomach on a table or a bed. Put your left arm out at shoulder level with your elbow bent to 90° and your hand down. Keep your elbow bent, and slowly raise your left hand. Stop when your hand is level with your shoulder. Lower the hand slowly. Repeat the exercise until your arm is tired. Then do the exercise with your right arm.

Exercise 2

Lie on your right side with a rolled-up towel under your right armpit. Stretch your right arm above your head. Keep your left arm at your side with your elbow bent to 90° and the forearm resting against your chest, palm down. Roll your left shoulder out, raising the left forearm until it's level with your shoulder. (Hint: This is like the backhand swing in tennis.) Lower the arm slowly. Repeat the exercise until your arm is tired. Then do the exercise with your right arm.



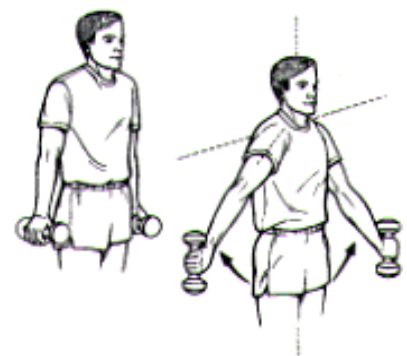
Exercise 3



Lie on your right side. Keep your left arm along the upper side of your body. Bend your right elbow to 90°. Keep the right forearm resting on the table. Now roll your right shoulder in, raising your right forearm up to your chest. (Hint: This is like the forehand swing in tennis.) Lower the forearm slowly. Repeat the exercise until your arm is tired. Then do the exercise with your left arm.

Exercise 4

In a standing position, start with your right arm halfway between the front and side of your body, thumb down. (You may need to raise your left arm for balance.) Raise your right arm until almost level (about a 45° angle). (Hint: This is like emptying a can.) Don't lift beyond the point of pain. Slowly lower your arm. Repeat the exercise until your arm is tired. Then do the exercise with your left arm.



whether or not you should have a cortisone injection. It is a very common practice that actually works quite well.

Steroid Injection

The medication is placed in the subacromial space, which is that area above the rotator cuff itself and the top of the shoulder blade. The injection is quite safe and easy to perform. We are not going deep into the shoulder joint. In general, the side effects are similar to having a flu shot, those being infection and bleeding which are extremely uncommon. The cortisone itself as well is quite safe as a single injection.

Repeated injections, more than three in one year, can lead to degeneration and weakening of some of the tissue. Repeated use of cortisone *taken orally* (seen in patients with severe asthma problems and rheumatoid arthritis), include cataracts, diabetes and thinning of the bones. The risk of any of these problems is *almost nonexistent* when cortisone treatment is given as a local injection. Mild side effects occasionally noted from cortisone injections include menstrual spotting in females, and all patients can sense a mild euphoric effect from the cortisone for two days or so.

Medications

Medications are often frequently prescribed; however, stomach ulcers or kidney problems can result from prolonged use of aspirin, Motrin, Advil, Alleve and other fancier (more expensive) antiinflammatories. Your home therapy program can be as effective as a visit to the physical therapy department, and besides being more convenient has the added benefit of avoiding someone who might inadvertently overwork your shoulder.

X-Rays

X-rays are rarely helpful in these injuries. If a follow-up visit in 4-6 weeks fails to show expected improvement an x-ray may be ordered looking for other problems as bone spurs or degenerative arthritis. Approximately one in twenty individuals with impingement syndrome will ultimately require surgery to repair their problem and/or rotator cuff tear.

Surgery

Surgery for impingement syndrome without a rotator cuff tear is very commonly performed as an arthroscopic surgery whereby the surgeon cleans out all the inflamed and swollen tissues as well as remove some of the bone and ligament that form the roof over the rotator cuff tear. This is an outpatient surgery, however, it still requires a significant amount of rehabilitation with most individuals returning to relatively normal activities within a three month period of time. If there is in fact a rotator cuff tear present, this usually requires a more complicated surgery where a small incision is made and the rotator cuff tendon is essentially sewn back together. Recovery from this procedure generally requires a lengthier period of time. Generally speaking, this type of surgery is reserved for younger individuals, as older patients frequently have a difficult time with therapy and regaining normal strength and motion following this type of surgery.

Healing

In summary, the most important aspect of the treatment of you shoulder pain is to avoid activities that aggravate that pain, first and foremost. This problem is very mechanical and continued pain only leads to more swelling, irritation, and inflammation and ultimately if this process is left unchecked for prolonged periods of time it can develop into a rotator cuff tear. Secondly, exercises must be done on a regular basis, which is the key to strengthening your rotator cuff so as to alleviate the impingement that causes all the swelling, inflammation and pain. Lastly, have patience. This process of healing takes eight to twelve weeks in general and frequently longer for those individuals who have had prolonged symptoms.

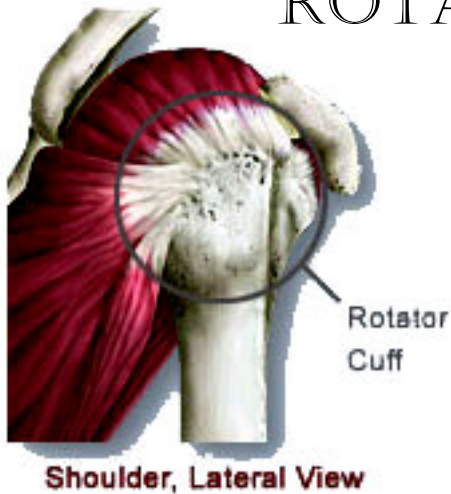
edited 10-2003 by TSG

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SHOULDER ROTATOR CUFF INJURY



Shoulder pain is an extremely common condition seen in medical practice. There are a wide variety of causes of shoulder pain; however, most shoulder pain develops from problems with the rotator cuff. The primary problem in this situation results from the two bones that lie below and above the rotator cuff

impinging upon the rotator cuff itself, and this condition is referred to as "the impingement syndrome". A comprehensive therapy program is quite successful in the treatment of rotator cuff problems and the required steps need to be taken in order to help resolve your shoulder pain.

Causes

Rotator cuff injuries generally occur from one or two basic processes: the first process is a traumatic event such as falling onto the ground. The second process occurs as an over-use injury, which generally occurs over a period of weeks, months and even years. The over-use condition is much more common than the traumatic condition, and frequently the problem may result from a combination of both. An over-use process is simply excessive stress over a prolonged period of time that leads to irritation, inflammation, swelling, and pain of the rotator cuff tendon and bursa.

Aggravating factors

Eliminating aggravating activities is most important! Activities that are over-head, using the arms outstretched, lifting, pushing or pulling heavy objects. Each time you aggravate it you are simply creating excessive forces and irritation of the rotator cuff, thus prolonging your injury. This is like picking a scab off of a wound over and over, and the injury will never heal. Of course, there are a variety of other conditions that could aggravate your shoulder pain including sleeping on the arm incorrectly and things such as cooking and cleaning. No matter what the situation, try to avoid all activities that aggravate your shoulder pain.

Therapy

The next key component of treatment of your shoulder pain is therapy: Several key exercises have been outlined that focus on strengthening the rotator cuff. Please be aware, that the rotator cuff is a group of four small muscles not much bigger than the size of your fingers. The exercise program is designed and developed to strengthen these small

muscles; it is not an excessively vigorous activity, like going to the weight room. You will not be sweating and your muscles should not be sore. If you start developing pain from your exercises back off on either the number of sets that you are doing or the number of repetitions. The best treatment is to do one-to-three sets, starting with one and gradually moving up as time progresses. Do about 20 repetitions of each exercise and then the exercise that should be performed about three times per week. If these exercises start aggravating your activities once again, you should back off on either the number of sets, repetitions or add an extra day of recovery into this process.

Healing

The healing time of the rotator cuff is on the order of eight to twelve weeks and sometimes longer. Do not expect a "quick fix" with the exercises. Take your time; go at your own pace. If you have had your pain for several years expect that this may take three to six months.

Torn Rotator Cuff

What about a possible tear in the rotator cuff?

Small rotator cuff tears can heal on their own if the process that leads to the rotator cuff tear is eliminated and the rotator cuff is given enough time to heal. Persons more likely to have rotator cuff tears are those with persistent severe pain and certain abnormalities that are identified on physical examination. In any situation, conservative care is used even in the worst shoulder pain cases, and this is for three primary reasons. 1) Most people do not have significant tears and will see gradual improvement as they start doing a therapy program. 2) individuals with a rotator cuff tear need to start basic rehabilitation as they will do much better following surgery after basic conditioning and reestablishment of full range of motion. 3) MRI's are often inaccurate. Conservative treatment is almost always the most appropriate initial step.

Please be aware that your therapy program should be limited by any significant pain so that even if we do have a tear, we do not make the tear any worse. The *next* consideration of your shoulder pain when due to rotator cuff problems **and** impingement syndrome is