

Rotator Cuff Injury

What is a rotator cuff injury?

A rotator cuff injury is a strain or tear in the group of tendons and muscles that hold your shoulder joint together and help move your shoulder.

How does it occur?

A rotator cuff injury may result from:

- using your arm to break a fall
- falling onto your arm
- lifting a heavy object
- use of your shoulder in sports with a repetitive overhead movement, such as swimming, baseball (mainly pitchers), football, and tennis, which gradually strains the tendon
- manual labor such as painting, plastering, raking leaves, or housework.

What are the symptoms?

The symptoms of a torn rotator cuff are:

- arm and shoulder pain
- shoulder weakness
- shoulder tenderness
- loss of shoulder movement, especially overhead.

How is it diagnosed?

Your doctor will perform a physical exam and check your shoulder for pain, tenderness, and loss of motion as you move your arm in all directions. Your doctor also will ask whether your shoulder pain began suddenly or gradually. An x-ray may be done to rule out fractures and bone spurs.

Based on these results, your doctor may order other tests and procedures either right away or later, including:

- magnetic resonance imaging (MRI), which creates images of your shoulder and surrounding structures with sound waves
- an arthrogram, which is an x-ray or MRI that is taken after a special dye has been injected into your shoulder joint to outline its soft structures
- arthroscopy, a surgical procedure in which a small instrument is inserted into your shoulder joint so your doctor can look directly at your rotator cuff.

What is the treatment?

A tendon in your shoulder can be inflamed, partially torn, or completely torn. What is done about it depends on how torn it is and how much it hurts.

If your tear is a minor one, it can be left to heal by itself if it doesn't interfere with your everyday activities. Your treatment plan should include:

- proper sitting posture, in which your head and shoulders are balanced
- rest for your shoulder, which means avoiding strenuous activity and any overhead motion that causes pain
- ice packs at least once a day, and preferably two or three times a day
- doing the exercises your doctor gives you
- anti-inflammatory drugs
- physical therapy to strengthen your shoulder as it heals.

If you have a bad tear, you may need to have it repaired by arthroscopy. Arthroscopy is also used to perform surgery on a joint, not only for seeing its interior. The rough edges of a torn tendon can be trimmed and left to heal. Larger tears can be stitched back together. After surgery, your treatment plan will include physical therapy to strengthen your shoulder as it heals.

How long will the effects of a torn rotator cuff last?

Full recovery depends on what is torn and how it is treated.

When can I return to my sport or activity?

The goal of rehabilitation is to return you to your sport or activity as soon as is safely possible. If you return too soon you may worsen your injury, which could lead to permanent damage. Everyone recovers from injury at a different rate. Return to your sport or activity will be determined by how soon your shoulder recovers, not by how many days or weeks it has been since your injury occurred. In general, the longer you have symptoms before you start treatment, the longer it takes to get better. You may safely return to your sport or activity when:

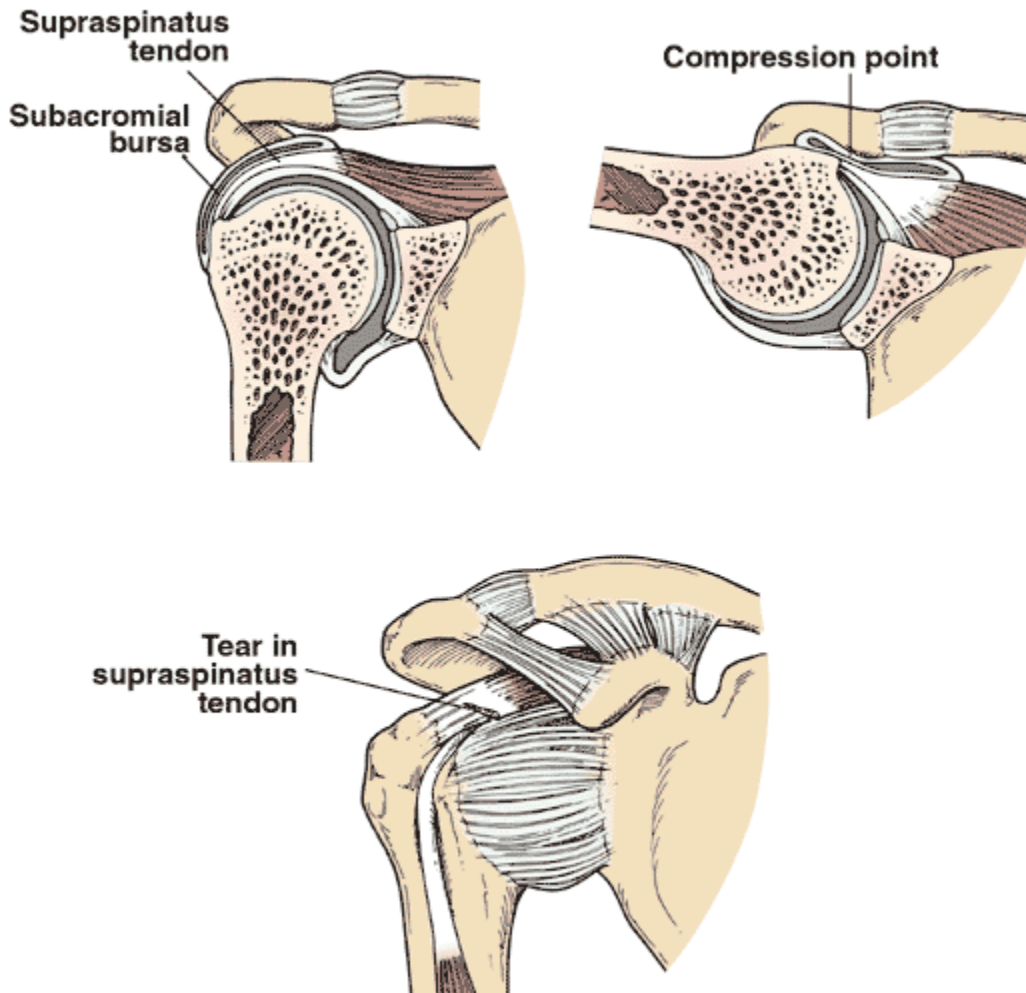
- Your injured shoulder has full range of motion without pain.
- Your injured shoulder has regained normal strength compared to the uninjured shoulder.

In throwing sports, you must gradually build your tolerance to throwing. This means you should start with gentle tossing and gradually throw harder. In contact sports, your shoulder must not be tender to touch and contact should progress from minimal contact to harder contact.

What can be done to help prevent this from recurring?

The best way to prevent a recurrence is to strengthen your shoulder muscles and keep them in peak condition with shoulder exercises.

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Rotator Cuff Strain Rehabilitation Exercises

You may do all of these exercises right away.

Phase I

- **Isometrics**

- External rotation:** Standing in a doorway with your elbow bent 90° and the back of your hand pressing against the door frame, attempt to press your hand outward into the door frame. Hold for 5 seconds. Do 3 sets of 10.
- Internal rotation:** Standing in a doorway with your elbow bent 90° and the front of your hand pressing against the door frame, attempt to press your palm into the door frame. Hold for 5 seconds. Do 3 sets of 10.

- **Wand exercises**

A. Flexion: Stand upright and hold a stick in both hands, palms down. Stretch your arms by lifting them over your head, keeping your elbows straight. Hold for 5 seconds and return to the starting position. Repeat 10 times.

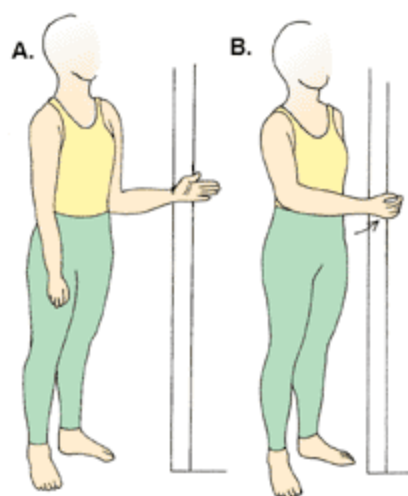
B. External rotation: Lie on your back and hold a stick in both hands, palms up. Your upper arms should be resting on the floor, your elbows at your sides and bent 90°. Using your good arm, push your injured arm out away from your body while keeping the elbow of the injured arm at your side. Hold the stretch for 5 seconds. Repeat 10 times.

C. Shoulder abduction and adduction: Stand upright and hold a stick with both hands, palms down. Rest the stick against the front of your thighs. While keeping your elbows straight, use your good arm to push your injured arm out to the side and up as high as possible. Hold for 5 seconds. Repeat 10 times.

Phase II

- **Tubing exercise for external rotation:** Stand resting the hand of your injured side against your stomach. With that hand grasp tubing that is connected to a doorknob or other object at waist level. Keeping your elbow in at your side, rotate your arm outward and away from your waist. Make sure you keep your elbow bent 90 degrees and your forearm parallel to the floor. Repeat 10 times. Build up to 3 sets of 10.
- **Tubing exercise for internal rotation:** Using tubing connected to a door knob or other object at waist level, keep your elbow in at your side and rotate your arm inward across your body. Make sure you keep your forearm parallel to the floor. Do 3 sets of 10.
- **Scaption:** Stand with your arms to your side and with your elbows straight. Slowly raise your arms to eye level. As you raise your arms, they should be spread apart so that they are and only slightly in front of your body (at about a 30 degree angle to the front of your body). Point your thumbs toward the ceiling. Hold for 2 seconds and lower your arms slowly. Do 3 sets of 10. Hold a soup can or light weight when doing the exercise and increase the weight as the exercise gets easier.
- **Sidelying external rotation:** Lie on your uninjured side with your injured arm at your side and your elbow bent to 90°. Keep your elbow against your side, raise your forearm and hold for 2 seconds. Slowly lower your arm. Do 3 sets of 10. You can start doing this exercise holding a soup can or light weight and gradually increase the weight as long as there is no pain.
- **Horizontal abduction:** Lie on a table or the edge of a bed face down with your injured arm hanging down straight to the floor. Raise your arm out to the side, parallel to the floor. Hold for 2 seconds and then lower it slowly. Start this exercise with no weight. As you get stronger add a light weight or hold a soup can. Do 3 sets of 10.
- **Push ups with a plus:** Begin on the floor on your hands and knees. Keep your arms a shoulder width apart and lift your feet off the floor. Arch your back as high as possible and round your shoulders (this is the "plus" part of the exercise). Bend your elbows and lower your body to the floor. Return to the starting position and arch your back again. Do 3 sets of 10.

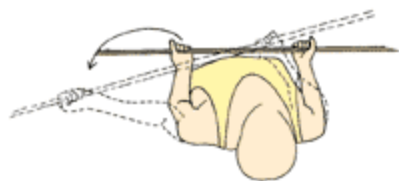
Rotator Cuff Injury Exercises – Phase I



Isometrics



A. Flexion



B. External rotation



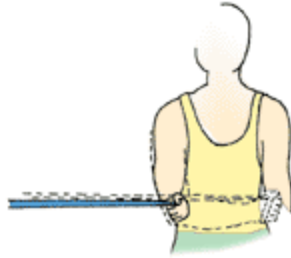
C.. Shoulder abduction

Wand exercises

Rotator Cuff Injury Exercises – Phase II



**Tubing exercise for
external rotation**



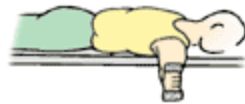
**Tubing exercise for
internal rotation**



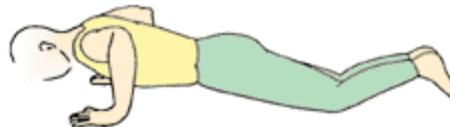
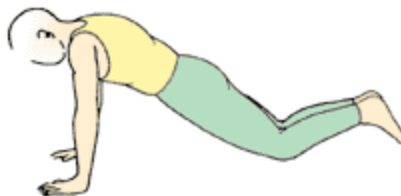
Scaption



Sidelying external rotation



Horizontal abduction



Push-ups with a plus