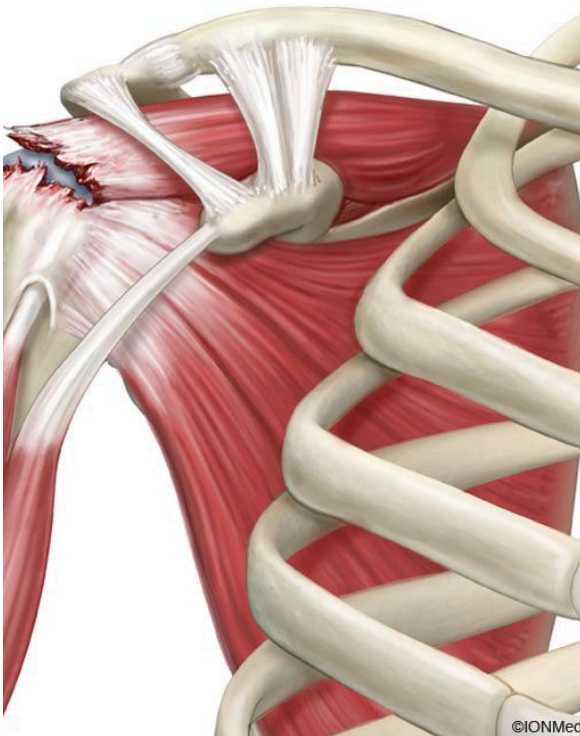


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-Orthopedic Surgery-

Rotator Cuff Tears



What is a rotator cuff tear?

The four rotator cuff tendons and attached muscles provide the majority of strength to the shoulder for lifting and rotating the arm. Unfortunately, in most people these tendons are the first part of the shoulder that starts to wear out over time. The tendons thin and weaken and become more at risk to injury. The most commonly affected is the tendon on top (supraspinatus) which gives strength to lift the arm. Thin, weak tendon tissue can fray and ultimately lead to tears. Typically, the tendon tears off of its attachment to the top of the shoulder ball (humeral head).

What are the types of rotator cuff tears?

Partial Tear: Here only a portion of the tendon tears off the bone, but some of the tendon is still attached. There are different severities of partial tears.

Full-Thickness Tear: This type of tear is also called a complete tear. This describes a tear where the tendon is fully separated from the bone in at least one area.

Symptoms and Causes

What are the causes of a rotator cuff tear?

Acute Tear: If you fall down on your outstretched arm or lift something too heavy with a jerking motion, you can tear your rotator cuff.

This type of tear can occur with other shoulder injuries, such as a broken collarbone or dislocated shoulder.

Degenerative Tear: Most tears are the result of a wearing down of the tendon that occurs slowly over time. This degeneration naturally occurs as we age. Anyone over 40 years of age could be at risk, but the risk increases significantly with each decade. All of us will get a rotator cuff tear at some point if we live long enough.

Rotator cuff tears are more common in the dominant arm. If you have a degenerative tear in one shoulder, there is a greater risk for a rotator cuff tear in the opposite shoulder even if you have no pain in that shoulder.

Several factors contribute to degenerative, or chronic, rotator cuff tears.

Repetitive Stress: Repeating the same shoulder motions again and again can stress your rotator cuff muscles and tendons. Baseball, tennis, rowing, and weightlifting are examples of sports activities that can put you at risk of overusing tears. Many jobs and routine chores can cause overuse of tears, as well. Lack of blood supply. As we get older, the blood supply in our rotator cuff tendons lessens. Without a good blood supply, the body's natural ability to repair tendon damage is impaired. This can ultimately lead to a tendon tear.

Bone Spurs: As we age, bone spurs (bone overgrowth) often develop on the underside of the acromion bone.

When we lift our arms, the spurs rub on the rotator cuff tendon. This condition is called shoulder impingement, and over time will weaken the tendon and make it more likely to tear.

People who do repetitive lifting or overhead activities are also at risk for rotator cuff tears. Athletes are especially vulnerable to overuse tears, particularly tennis players and baseball

pitchers. Painters, carpenters, and others who do overhead work also have a greater chance for tears. Although overuse of tears caused by sports activity or overhead work also occurs in younger people, most tears in young adults are caused by a traumatic injury, like a fall.

What are the symptoms of a rotator cuff tear?

The most common symptoms of a rotator cuff tear include:

- Pain at rest and at night, particularly if lying on the affected shoulder Pain when lifting and lowering your arm or with specific movements
- Weakness when lifting or rotating your arm Crepitus or crackling sensation when moving your shoulder in certain positions Tears that happen suddenly, such as from a fall, usually cause intense pain.
- There may be a snapping sensation and immediate weakness in your upper arm. A rotator cuff injury can make it painful to lift your arm out to the side.
- Tears that develop slowly due to overuse also cause pain and arm weakness. You may have pain in the shoulder when you lift your arm to the side, or pain that moves down your arm. At first, the pain may be mild and only present when lifting your arm over your head, such as reaching into a cupboard.
- Over-the-counter medication, such as aspirin or ibuprofen, may relieve the pain at first. Over time, the pain may become more noticeable at rest, and no longer goes away with medications. You may have pain when you lie on the painful side at night. The pain and weakness in the shoulder may make routine activities such as combing your hair or reaching behind your back more difficult.

Diagnosis and Tests

How is a rotator cuff tear diagnosed?

Physical Examination & Patient History: During your first visit, your doctor will talk to you about your symptoms and medical history. During the physical examination, your doctor will check all the structures of your injury and compare them to your non-injured anatomy. Most injuries can be diagnosed with a thorough physical examination.

Imaging Tests: Imaging Tests Other tests which may help your doctor confirm your diagnosis include:

X-rays. Although they will not show any injury, x-rays can show whether the injury is associated with a broken bone.

Magnetic resonance imaging (MRI) scan. If your injury requires an MRI, this study is utilized to create a better image of soft tissues injuries. However, an MRI may not be required for your particular injury circumstance and will be ordered based on a thorough examination by your Peninsula Bone & Joint Clinic Orthopedic physician.

Management and Treatment

What is the treatment for a rotator cuff tear?

Nonsurgical options

Magnetic resonance imaging (MRI) scan. If your injury requires an MRI, this study is utilized to create a better image of soft tissues injuries. However, an MRI may not be required for your particular injury circumstance and will be ordered based on a thorough examination by your Peninsula Bone & Joint Clinic Orthopedic physician.

If you have a rotator cuff tear and you keep using it despite increasing pain, you may cause further damage. A rotator cuff tear can get larger over time. Chronic shoulder and arm pain are good reasons to see your doctor. Early treatment can prevent your symptoms from getting worse. It will also get you back to your normal routine that much quicker.

The goal of any treatment is to reduce pain and restore function. There are several treatment options for a rotator cuff tear, and the best option is different for every person. In planning your treatment, your doctor will consider your age, activity level, general health, and the type of tear you have.

There is no evidence of better results from surgery performed near the time of injury versus later on. For this reason, many doctors first recommend nonsurgical management of rotator cuff tears.

In about 50% of patients, nonsurgical treatment relieves pain and improves function in the shoulder. Shoulder strength, however, does not usually improve without surgery.

Nonsurgical treatment options may include:

- A short period of rest. Your doctor may suggest resting and limiting overhead activities if pain is severe
- Activity modification. Avoid activities that cause shoulder pain.
- Non-steroidal anti-inflammatory medication. Drugs like ibuprofen and naproxen reduce pain and swelling.
- Strengthening exercises and physical therapy. Specific exercises will restore movement and strengthen your shoulder. Your exercise program will include stretches to improve flexibility and range of motion. Strengthening the muscles that support your shoulder can relieve pain and prevent further injury.
- Steroid injection. If rest, medications, and physical therapy do not relieve your pain, an injection of a local anesthetic and a cortisone preparation may be helpful. Cortisone is a very effective anti-inflammatory medicine

There are two primary advantages to nonsurgical treatment:

- Avoid the inconvenience and pain of surgery; rotator cuff repair often involves a lengthy recovery.
- Avoid the potential complications of surgery and anesthesia

The disadvantages of nonsurgical treatments are:

- No improvements in strength
- The tear may worsen over time, increasing in size and pulling farther away from the bone. As the muscle atrophies, the tear may become so severe that it cannot be repaired.
- Activities may need to be limited

Surgical Treatment

Repair of the rotator cuff tear with surgery is considered for many patients depending on the situation. Your doctor will discuss with you the potential benefits and risks of surgery. Younger and more active patients as well as patients with acute traumatic tears may benefit from earlier surgery. Any patient with persistent pain and weakness despite a period of nonsurgical treatment could consider surgery to improve their pain and function.

Surgical repair is performed with minimally invasive arthroscopic techniques. Through 3-4 tiny keyhole incisions, the torn tendon can be reattached to the bone. The surgery typically takes 1-2 hours and patients return home the same day. Modern anesthetic techniques (nerve blocks to numb the shoulder after surgery) make the early recovery easier and less painful.