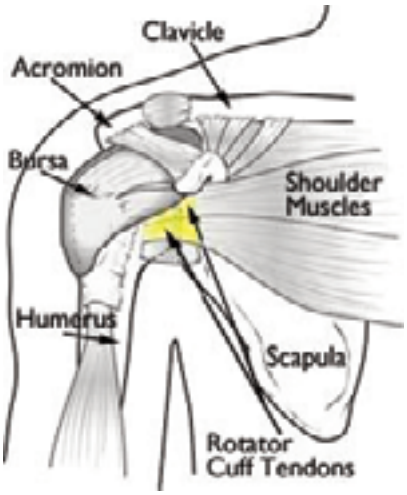
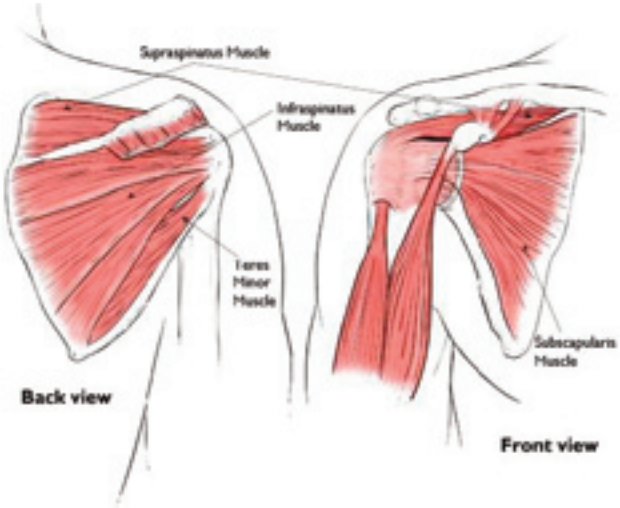
Rotator Cuff Tear





A rotator cuff tear is a common cause of pain and disability among adults. In 2008, close to 2 million people in the United States went to their doctors because of a rotator cuff problem. A torn rotator cuff will weaken your shoulder. This means that many daily activities, like combing your hair or getting dressed may become painful and difficult to do.

Anatomy

Your shoulder is made up of three bones: your upper arm bone (humerus), your shoulder blade (scapula), and your collarbone (clavicle). The shoulder is a ball-and-socket joint: The ball, or head, of your upper arm bone fits into a shallow socket in your shoulder blade.

Your arm is kept in your shoulder socket by your rotator cuff. The rotator cuff is a network of four muscles that come together as tendons to form a covering around the head of the humerus. The rotator cuff attaches the humerus to the shoulder blade and helps to lift and rotate your arm.

There is a lubricating sac called a bursa between the rotator cuff and the bone on top of your shoulder (acromion). The bursa allows the rotator cuff tendons to glide freely when you move your arm. When the rotator cuff tendons are injured or damaged, this bursa can also become inflamed and painful.

Description

When one or more of the rotator cuff tendons is torn, the tendon no longer fully attaches to the head of the humerus. Most tears occur in the supraspinatus tendon, but other parts of the rotator cuff may also be involved. In many cases, torn tendons begin by fraying. As the damage progresses, the tendon can completely tear, sometimes with lifting a heavy object.

There are different types of tears:

- **Partial Tear:** This type of tear damages the tendon, but does not completely sever it.
- **Full-Thickness Tear:** This type of tear is also called a complete tear. In most cases, tendons tear off where they attach to the head of the humerus. With a full-thickness tear, there is basically a hole in the tendon.

Cause

There are two main causes of rotator cuff tears: Injury and degeneration:

- **Injury or 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

Orthopaedic Associates of Muskegon

West Michigan Spine Center

Grand Haven Bone & Joint

1400 Mercy Drive, Ste 100
Muskegon, MI 49444
231-733-1326

1445 Sheldon Rd, Suite G1
Grand Haven MI 49417
616-296-9100

www.oamkg.com
www.wmspinecenter.com

tendon that occurs slowly over time. This degeneration naturally occurs as we age. 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 motions:** sports, weightlifting, and other overuse motions
- **Lack of blood supply:** Aging causes a decrease in blood supply to the shoulder; this can lead to a rotator cuff tear
- **Bone spurs:** Aging can cause bone spurs (bone overgrowth) and 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.

Risk Factors

- Age: usually 40 +
- Repetitive motions; sports, other physical work
- Trauma / falls
- Certain not well understood genetic factors or anatomic variations

Symptoms

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.

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. Over-the-counter medication, such as aspirin or ibuprofen, may relieve the pain at first.

Examination

After discussing your symptoms and medical history, your doctor will examine your shoulder. Range of motion, tenderness, and strength will be measured. Your doctor will check for other problems with your shoulder joint. He may also examine your neck to make sure that the pain is not coming from a "pinched nerve," and to rule out other conditions, such as arthritis.

Imaging Tests

- **X-rays:** These are usually taken initially to evaluate the bony architecture
- **Magnetic resonance imaging (MRI) or ultrasound:** These studies can better show soft tissues like the rotator cuff tendons. They can show the rotator cuff tear, as well as where the tear is located within the tendon and the size of the tear. An MRI can also give your doctor a better idea of how "old" or "new" a tear is because it can show the quality of the rotator cuff muscles.

Treatment

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. 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.

Nonsurgical Treatment

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:

- Rest. Your doctor may suggest rest and limiting overhead activities
- Activity modification. Avoid activities that cause shoulder pain
- Medications: NSAIDS
- Strengthening exercises and physical therapy

- Steroid injection

The chief advantage of nonsurgical treatment is that it avoids surgery. Additionally, some types of tears might not be able to be surgically repaired.

The disadvantages of nonsurgical treatment include:
- No improvements in strength
- Size of tear may increase over time
- Activities may need to be limited

Surgical Treatment

Your doctor may recommend surgery 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

Surgery to repair a torn rotator cuff most often involves reattaching the tendon to the head of the humerus (upper arm bone). After surgery, your arm is typically immobilized in a sling for 6 weeks. Formal physical therapy is a critical part of the recovery process to regain motion and strength. Recovery can be quite prolonged after surgical repair with complete recovery taking up to a year.

Adapted from American Academy of Orthopaedic Surgeons. For more information, see orthoinfo.aaos.org