Midlands Orthopaedic Centre

Trauma & Orthopaedics

Rotator cuff tears

Patient Information Leaflet

NHS
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Rotator cuff tears

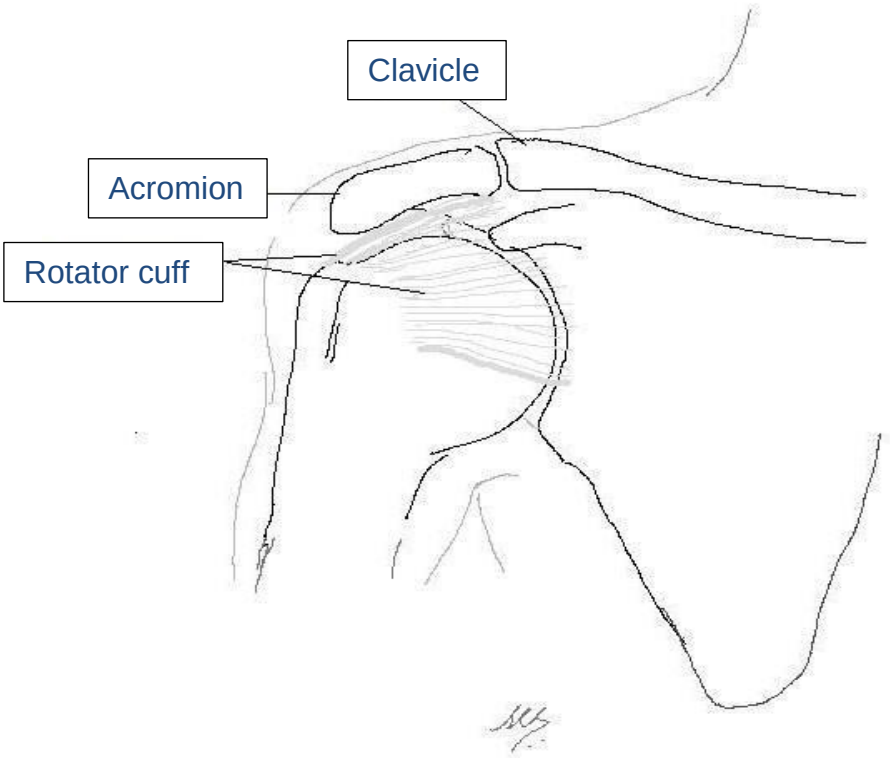
The rotator cuff tendons are key to the healthy functioning of the shoulder. They are subject to a lot of wear and tear, or degeneration, as we use our arms. A torn rotator cuff can cause pain and weakness in the shoulder. Most of the time patients with torn rotator cuffs are in late middle age. But rotator cuffs tears can happen at any age.

What is the rotator cuff, and what does it do?

The shoulder is made up of three bones: the scapula (shoulder blade), the humerus (upper arm bone), and the clavicle (collarbone). The upper part of the scapula that makes up the roof of the shoulder is called the acromion. The rotator cuff connects the humerus to the scapula. The rotator cuff is formed by the tendons of four muscles: the supraspinatus, infraspinatus, teres minor, and subscapularis.

Tendons attach muscles to bones. Muscles move the bones by pulling on the tendons. The rotator cuff helps raise and rotate the arm.

A bursa is located between the acromion and the rotator cuff tendons. A bursa is a lubricated sac of tissue that cuts down on the friction between two moving parts. Bursae are located all over the body where tissues must rub against each other. In this case, the bursa protects the acromion and the rotator cuff from grinding against each other.



What causes the rotator cuff to tear?

The rotator cuff tendons have areas of very low blood supply. The more blood supply a tissue has the better and faster it can repair and maintain itself. The areas of poor blood supply in the rotator cuff make these tendons especially vulnerable to degeneration from aging. The degeneration of aging helps explain why the rotator cuff tear is such a common injury later in life. Rotator cuff tears usually occur in areas of the tendon that had low blood supply to begin with and then were further weakened by degeneration. This problem of degeneration may be accelerated by repeating the same types of shoulder motions. This can happen with overhead athletes, but even doing routine chores like cleaning windows, washing and waxing cars, or painting can cause the rotator cuff to fatigue from overuse.

Excessive force can tear weak rotator cuff tendons. Sometimes injuries that tear the rotator cuff are painful, but sometimes they aren't. Researchers estimate that up to 40 percent of people may have a mild rotator cuff tear without even knowing it.

The typical patient with a rotator cuff tear is in late middle age and has had problems with the shoulder for some time. This patient then lifts a load or suffers an injury that tears the tendon. After the injury, the patient is unable to raise the arm. However, these injuries also occur in young people. Overuse or injury at any age can cause rotator cuff tears.

Diagnosis

Your doctor will ask questions about your medical history, your injury, and your pain. Your doctor will then do a physical examination of the shoulder. X-rays won't show tears in the rotator cuff. However, your doctor may want you to have a shoulder X-ray to see if there are bone spurs, a loss of joint space in the shoulder, or a down-sloping (hooked) acromion. These findings are associated with tears in the rotator cuff. An X-ray can also show if there are calcium deposits in the tendon that are causing your symptoms, a condition called calcific tendonitis.

Your doctor may ask you to have an ultrasound scan or a magnetic resonance imaging (MRI) scan to confirm a rotator cuff tear.

What treatment options are available?

Nonsurgical treatment

Your doctor's first goal will be to help control your pain and inflammation. Initial treatment is usually rest and anti-inflammatory medication, such as aspirin or ibuprofen. This medicine is used mainly to control pain. Your doctor may suggest a cortisone injection if you have trouble getting your pain under control. Cortisone is a very effective anti-inflammatory medication.

Your doctor will probably have a physical or occupational therapist direct your rehabilitation program. Hands-on treatments and various types of exercises are used to improve the range of motion in your shoulder and the nearby joints and muscles.

Later, you will do strengthening exercises to improve the strength and control of the rotator cuff and shoulder blade muscles. This will help your shoulder move smoothly during all of your activities. You may need therapy treatments for six to eight weeks. Most patients are able to get back to their activities with full use of their arm within this amount of time.

Surgery

A complete rotator cuff tear will not heal. Complete ruptures usually require surgery if your goal is to return your shoulder to optimal function. The exception is in elderly patients or patients who have other diseases that increase the risks of surgery. You will need to work with your surgeon to determine when is the best time to do the surgery.

Certain types of partial rotator cuff tears may not require surgical repair. If you have a partial tear, your surgeon will most likely want to further evaluate the situation and determine how much the tendon is torn and where the tendon is damaged. This information will be used to decide whether surgery should be recommended or whether you may want to consider non-surgical care for the partial tear of the tendon.

Repair of the rotator cuff can be done either as an open procedure or as a keyhole (arthroscopic) procedure or even as a combination of the two techniques (mini-open repair). With both techniques the surgeon will also remove some of the acromion bone to increase the space available for the rotator cuff tendons under the acromion bone (decompression).

The recovery time may vary with the two techniques, but overall results in respect of healing of the tendon are same, and individual decisions on which method is best will be made by your surgeon based on the examination and tests.

Salvage procedure

In other cases, the tendon tissue has simply worn away, and the remaining tendon is not strong enough to hold the necessary stitches. In these instances, simply removing all the torn tissue and fixing any other problems in the shoulder may reduce your pain. But this will probably not increase the strength or motion of your shoulder.

What should I expect after treatment?

Nonsurgical rehabilitation

Even if you don't need surgery, you may need to follow a program of rehabilitation exercises. Your doctor may recommend that you work with a physiotherapist. Your therapist can create an individualized program to help you regain shoulder function. This includes tips and exercise for improving posture and shoulder alignment. It is also very important to improve the strength and coordination in the rotator cuff and shoulder blade muscles. Your therapist can also evaluate the way you use your body when you do your activities and suggest changes to avoid further problems.

After surgery

Most patients will be able to go home on the day of surgery, though some patients will require an overnight stay in hospital. Your surgeon will most likely have you wear a sling to support and protect the shoulder for several weeks (generally four to six weeks) after surgery. You will be able to start most day to day activities after a few days, and driving after four to six weeks.

Rehabilitation after rotator cuff surgery can be a slow process. You will probably need to attend therapy sessions for two to three months, and you should expect full recovery to take six to nine months. Getting the shoulder moving as soon as possible is important. However, this must be balanced with the need to protect the healing tissues. Treatments start out with range-of-motion exercises and gradually work into active stretching and strengthening. You just need to be careful about doing too much, too quickly. Active therapy usually starts six weeks after surgery. You use your own muscle power in active range-of-motion exercises. Formal strengthening exercises will be delayed until 12 weeks.

Exercises focus on improving the strength and control of the rotator cuff muscles and the muscles around the shoulder blade. Some of the exercises you'll do are designed to get your shoulder working in ways that are similar to your work tasks and sport activities.

If you have any worries or concerns, or you need to ask about returning to work or sport, please contact one of the following:

- The Virtual Fracture Clinic helpline on ext. 3547 (9am to 5pm, Monday to Friday) or email dgft.vfc.dudley@nhs.net
- The Fracture Clinic on 01384 456111 ext. 2220 (9am to 5pm, Monday to Friday)
- The Emergency Department on 01384 456111 ext. 2300

This leaflet can be downloaded or printed from:

http://dgft.nhs.uk/services-and-wards/trauma-and-orthopaedics/

If you have any feedback on this patient information leaflet, please email dgft.patient.information@nhs.net

This leaflet can be made available in large print, audio version and in other languages, please call 0800 073 0510.

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此宣传单可提供大字版本、音频版本和其它语言版本，请拨打电话：0800 073 0510。

Ulotka dostępna jest również w dużym druku, wersji audio lub w innym języku. W tym celu zadzwoń pod numer 0800 073 0510.

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Aceasta brosura poate fi pusa la dispozitie tiparita cu caractere mari, versiune audio sau in alte limbi, pentru acest lucru va rugam sunati la 0800 073 0510.

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