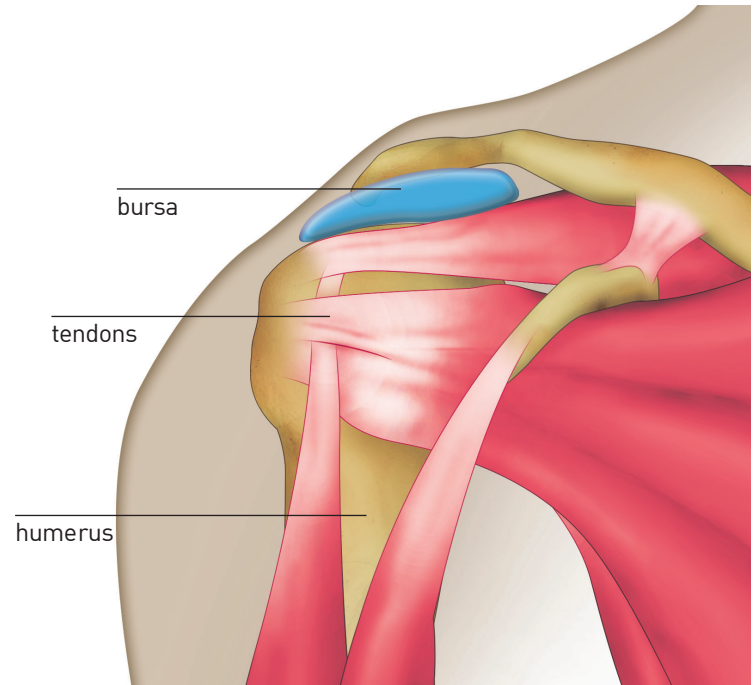


### Overview

The *rotator cuff* is a group of four tendons that covers the humeral head and controls arm rotation and elevation. These muscles and their tendons work together with the deltoid muscle to provide motion and strength to the shoulder for all waist-level and shoulder-level or above activities.

*Rotator cuff tendonitis* is an inflammation of a group of muscles in the shoulder together with an inflammation of the lubrication mechanism called the *bursa*. In fact, *bursitis* should not be considered a diagnosis but rather a symptom of rotator cuff tendonitis. This condition is often caused by or associated with repetitive overhead activities such as throwing, raking, washing cars or windows and many other types of highly repetitive motions. It may also occur as a result of sudden injury or degeneration. Rotator cuff injuries are the most common cause of shoulder pain and limitation of activities in sports in all age groups. Rotator cuff tendonitis is the mildest form of rotator cuff injury.



### Causes & Symptoms

The shoulder has a unique arrangement of muscles and bone. The rotator cuff is sandwiched between two bones much like a sock lies between the heel and the edge of a shoe. In the same way that repeated walking eventually wears out the sock, the rotator cuff muscles fray with repeated rubbing on the bone. As the muscle begins to fray, it responds to the injury by becoming inflamed and painful. With continued fraying, like a rope, it may eventually tear.

The classic symptoms include a “toothache” like pain radiating from the outer arm to several inches below the top of the shoulder. Pain may also occur in the front and top of the shoulder. It may interfere with sleeping comfortably. It may even awaken people from a sound sleep with a nagging pain in the upper arm.

The symptoms are usually aggravated by raising the arms overhead or in activities that require reaching behind the body, such as retrieving an object from the back seat of a car. Furthermore, reaching behind the back to fasten underclothing or to pass a belt may aggravate the arm and shoulder pain.

A clicking in the shoulder may occur when raising the arm above the head.



### Treatment

A thorough history and physical exam will nearly always lead to an effective diagnosis. X-rays will often show changes on the arm bone where the rotator cuff muscles attach, but an MRI provides the definitive diagnosis. This test clearly shows the muscles and indicates if the muscle is inflamed, injured or torn.

The following steps should be taken as a conservative approach to treating rotator cuff tendonitis:

- Stop or markedly decrease the activity that required the use of the shoulder.
- Apply ice to the affected area.
- Take anti-inflammatory medication to reduce arm and shoulder pain.
- Begin an exercise program to maintain flexibility.
- Avoid carrying heavy objects with the affected arm or using a shoulder-strap bag on the affected side.

In the early phases, non-steroidal anti-inflammatory drugs (NSAIDs) such as ibuprofen or naproxen may provide benefit. However, to allow the inflammation to resolve, it is vital to curtail any repetitive activity and it is equally important to try to keep the elbow below the shoulder level when using the arm.

Daily stretching while in a hot shower is also beneficial. If shoulder pain becomes more severe, prescription-strength medication or a cortisone type injection may help. Cortisone injections can be very effective in the treatment of the pain. When used, injections should be done in conjunction with a home exercise program for flexibility and strengthening, modification of activities and ice. Our team at the Spine Center works closely with patients to establish a routine that works towards effective treatment and return to full mobility. Other pain controlling options include heat, ice, ultrasound and therapeutic massage.

For those with recurrent episodes of tendonitis and some risk factors, rotator cuff tendonitis may take months to heal and in rare cases may require surgery.