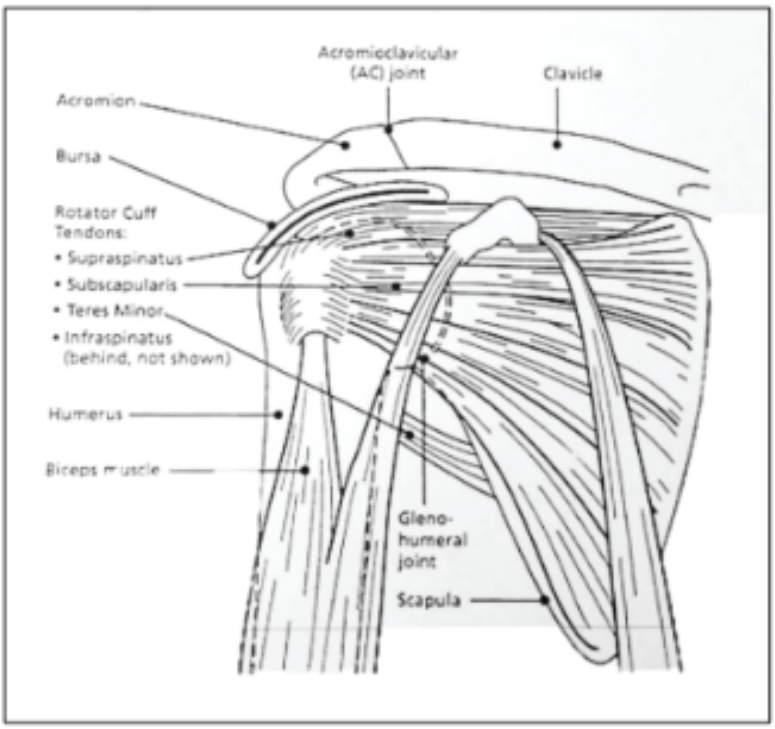
MOUNTAIN
ORTHOPAEDICS

ROTATOR CUFF TEARS

"Doc, I was at the gym the other day, and I'm sure I tore my rotating cup!" Thus start many conversations in my office with patients who are concerned about having a torn tendon in their shoulder. The proper term for the sheet of tendons that surrounds the supper arm bone, or the humerus, is the "rotator cuff", just like the cuff on one's shirtsleeve.

Anatomy:

Tendons connect muscle to bone allowing the motor or muscle to move the attached bone. This is opposed to ligaments that connect one bone to another to provide stability of a joint. Thus the rotator cuff is a sheet of four tendons that allows for active motion of the shoulder joint, where a ligament like the anterior cruciate ligament helps provide stability of the knee joint.



The rotator cuff is responsible for positioning the shoulder in space to allow the hand and fingers to manipulate and control our daily tasks at home and at work. The deltoid muscle assists power movements of the shoulder.

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Rotator Cuff Tears:

When a rotator cuff tendon is torn, deep, aching pain is usually felt on the outside of the shoulder and radiates down into the upper and mid-arm. This pain is often made worse with activity and is particularly bothersome at night, waking people from sleep on a regular basis. Some have such significant pain that they end up sleeping in a chair or recliner, as laying down completely in bed is just too painful. Weakness of the shoulder is also commonly noted.

Most tears occur in 50 year olds and older. Rarely will a person under the age of 40 have a rotator cuff tear, however they can occur. Ninety percent of tears occur simply by wear and tear and are called attritional tears. The tendons become stiffer and thinner with age, and often are rubbed through by the overlying bone. Ten percent or less of tears occur with one traumatic event, such as falling on one's elbow. Traumatic tears almost always require surgery to obtain a good, functional outcome.

History of Rotator Cuff Repairs:
The first rotator cuff repairs were described around the early 1900's. For many decades thereafter, this surgery was attempted occasionally due to somewhat unpredictable results. In 1972, Charles Neer, a surgeon from New York published a landmark article about shoulder problems and surgery and ushered in the modern age of shoulder surgery. Since then, techniques have evolved rapidly allowing better treatment options for patients with much more reliable results.

As early as 1930 a surgeon by the name of Burman introduced arthroscopic evaluation of the shoulder. Viewing a joint through small punctures with a scope type device is called arthroscopy, arthro meaning joint. He stated that surgery of the shoulder would be feasible once instruments were developed to allow this as opposed to just looking into the joint with a scope. His predictions have proved to be true.

Up until twelve to fifteen years ago almost all shoulder surgery was performed through open incisions. Many surgeons and patients were anxious to find ways to perform, and have surgery performed on them, through smaller incisions, and ultimately small puncture wounds. This has become a reality over the past decade.

Current Treatment:

Most shoulder surgery, including rotator cuff repairs, can now be accomplished safely and effectively with the assistance of the arthroscope. Recovery from this type of surgery is usually quicker, with less pain, however, the time required for healing of the tendon and bone is unchanged. Thus, the time required for complete healing and return to full work and sports activities is usually about the same as with open shoulder surgery.

There are also some significant limitations with arthroscopic shoulder surgery. Recent studies suggest that large and massive rotator cuff tears have a significantly higher failure rate if performed arthroscopically than with open surgery. So even though this type of surgery is very appealing, it is not for everyone, particularly if the risk of failure is unacceptably higher.

When surgery is necessary, most patients surgeons, and physical therapists agree that surgery performed with the assistance of the arthroscope is usually a much more pleasant experience.

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Recovery from Surgery:

This surgery is most often performed as an outpatient or same day surgery. An arm sling with a waistband and pillow is typically used for six weeks as a reminder not to move one's arm away from the body using the rotator cuff muscle. Doing so will often result in failure of the repair. Showers are usually permitted within three days following surgery, if the procedure was performed with the scope, getting the wounds wet, then covering them with just a band aid thereafter. Physical Therapy is a critical part of recovery and starts usually two weeks after surgery.

Doing too much too soon can often result in failure of the repair. Repeat repairs are much less stressful than is a first time repair.

Return to Work and Sports:

Most people can return to light duty or deskwork within about a week or two. Heavy lifting or manual labor usually should be delayed four to six months. Golf is usually permitted within the same time frame, but overhead or throwing sports are typically not recommended for up to a year, if ever.

Conclusion:

Rotator cuff tears are common in our society and can be a source of significant pain and impairment. Surgery is usually recommended, but non-surgical treatment remains an option for some. The result of rotator cuff repair is reliable, but requires an extended period of time to recover and return to normal activities.

For additional patient education information go to www.orthodoc.aaos.org/drpepper/