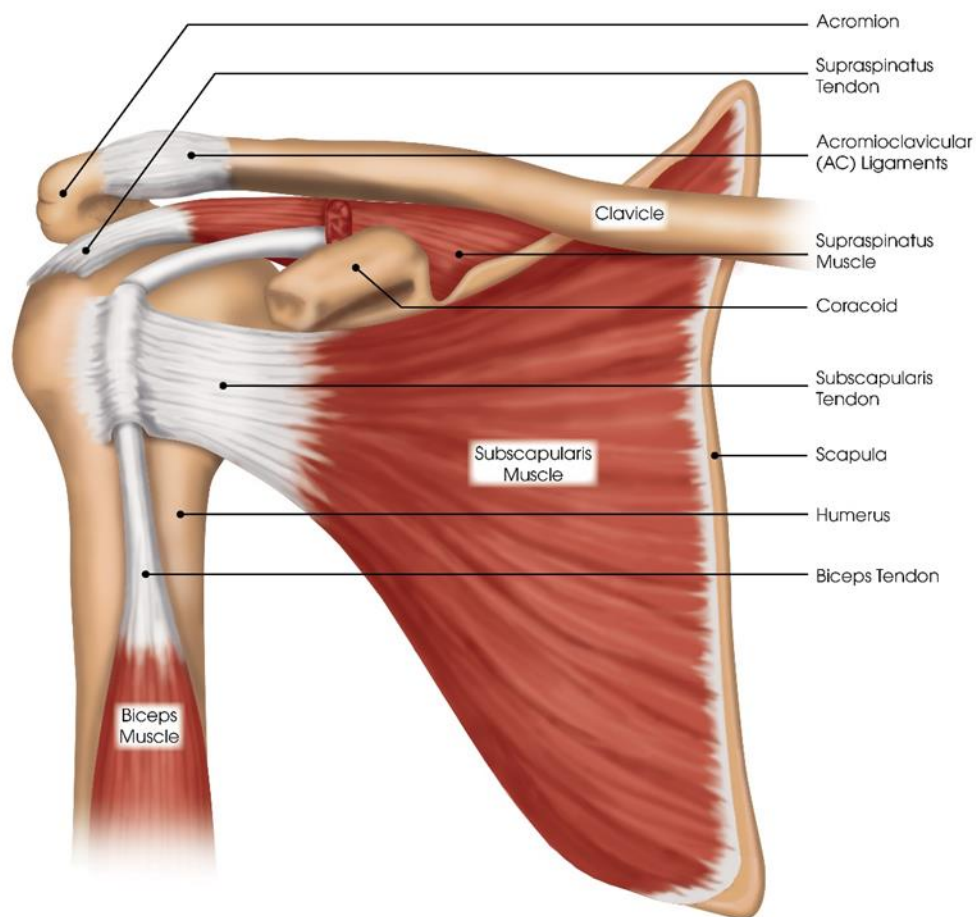


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Rotator Cuff Tear of the Subscapularis

The rotator cuff is a series of four muscles that run along the scapula (shoulder blade) around the glenoid (shoulder socket) and attach to the humeral head (ball) by their tendons. The muscles of the rotator cuff work to keep the humeral head (ball) centered in the glenoid (socket) as the arm moves. The subscapularis muscle runs along the underside of the scapula (shoulder blade) and attaches to the anterior (front) portion of the humeral head (ball). This muscle is critical for internal rotation of the humerus (arm bone) and stability of the shoulder joint. Injury or degeneration (wear and tear) can result in a tear of the subscapularis tendon. Not only do rotator cuff tears cause weakness and pain, but the resulting dysfunction results in an inability to keep the humeral head (ball) centered on the glenoid (socket), which causes additional irritation and pain of the shoulder.



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Frequent Signs and Symptoms

- Pain along the upper arm between the shoulder and elbow
- Pain that is increased when reaching out and overhead
- Aching pain at rest or at night while trying to sleep
- Loss of strength
- Limited motion of the shoulder, especially reaching behind for a back pocket or bra clasp
- Crepitus (a crackling sound) when moving the shoulder

Etiology (Causes)

- Direct injury to the shoulder, such as falling on an outstretched arm or getting the arm caught and forced backwards
- Aging or degeneration (wear and tear) of the tendon with normal use
- Shoulder dislocation (in patients older than age 40)

Risk Factors

- Contact sports or throwing sports
- Weightlifting and bodybuilding
- Heavy or repetitive overhead labor
- Previous injury to rotator cuff, including impingement
- Poor physical conditioning (strength and flexibility)
- Inadequate warm-up before activities
- Increasing age

Prevention

- Appropriately warm up and stretch before practice or competition
- Allow time for adequate rest and recovery between practices and competition
- Maintain appropriate conditioning:
 - Cardiovascular fitness
 - Shoulder flexibility
 - Strength and endurance of the rotator cuff muscles and muscles of the scapula (shoulder blade)
- Use proper technique when lifting and working overhead

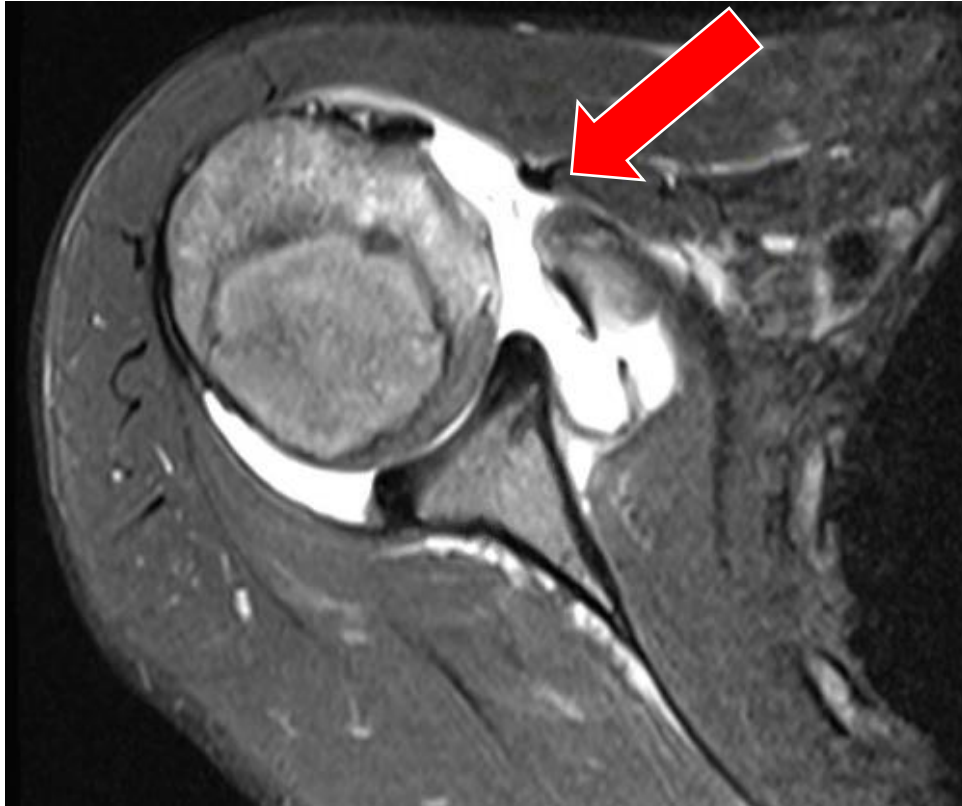


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Outcomes

Symptoms may improve by avoiding or limiting aggravating activities and performing physical therapy exercises to strengthen the remaining intact rotator cuff muscles to compensate for the tear. However, rotator cuff tears do not heal with conservative treatment and will tend to get larger and more painful with time. Eventually, an untreated rotator cuff tear may become nonfunctional and irreparable, sometimes within months. Surgery is often needed to repair the rotator cuff tear and alleviate pain and restore function. Dr. Chudik can perform arthroscopic surgery to re-attach the torn rotator cuff muscles back to the bone. Outcomes for arthroscopic rotator cuff repair are generally good. But based on the size and age of the tear, larger and older tears do not have as good of an outcome.



Red arrow in this MRI indicates a torn subscapularis tendon with retraction



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Potential Complications

- Intermittent pain that may progress to constant pain as the tear progresses
- Shoulder stiffness or loss of motion
- Persistent weakness
- Worsening of symptoms if treated without surgery
- Inability to return to same level of function even if the tendon is repaired
- Arthritis/rotator cuff arthropathy
- Risks of surgery, including infection, bleeding, injury to nerves, shoulder stiffness, weakness, re-tearing of the rotator cuff tendon, and persistent pain

Treatment Considerations

Treatment depends on the patient's medical health and demands (activity) level, the presence of arthritis, and whether the tear can be repaired. For large (possibly irreparable) tears, elderly patients with low demands, or patients who are poor surgical candidates because of other health conditions, restricting activity to prevent symptoms combined with physical therapy to optimize the function of the remaining intact (not torn) rotator cuff muscles is the most appropriate initial treatment. For irreparable tears that have failed the initial activity restriction and therapy, arthroscopic surgery to debride (clean up), partially repair the rotator cuff, or transfer a muscle to replace the subscapularis may be helpful to relieve symptoms and regain function. Reverse total shoulder replacement may be appropriate for some irreparable tears. For all other symptomatic rotator cuff tears, surgery is usually recommended to repair the rotator cuff tendon back to the arm bone. Surgery may be performed arthroscopically or with an open incision. Recovery usually requires six to eight weeks in a sling followed by four to six months of physical therapy.

Possible Medications

- Nonsteroidal anti-inflammatory medications, such as aspirin, ibuprofen (Motrin®), or Naprosyn®, Aleve®, Advil®, or other minor over-the-counter pain relievers, such as acetaminophen, Tylenol®, may be helpful. DO NOT take nonsteroidal anti-inflammatory medications within 10 to 14 days of surgery or following surgery, and stop these medications if they cause any bleeding or upset stomach.
- Pain relievers are not prescribed after this type of injury but may be prescribed after surgery as necessary. Use only as directed.
- Steroid injections reduce inflammation and can be helpful in certain cases, but should be used with proper discretion. They can negatively affect the biomechanical properties of the tendon and should not be used when surgery is planned.



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Modalities (Cold and Heat)

- Cold is used to relieve pain and reduce inflammation. Cold should be applied for 15 to 20 minutes every two to three hours for inflammation and pain, and immediately after any activity that aggravates your symptoms. Use ice packs or an ice massage with a cloth between the ice and your skin to prevent burning /freezing your skin.
- Heat may be used when the initial pain, swelling, and inflammation subsides. A physical therapist or athletic trainer may prescribe heat to help warm-up the injured joint and surrounding soft tissues before stretching and strengthening exercises.

Notify My Office if Symptoms Worsen



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