

## **Shoulder Rotator Cuff Tear (Partial Thickness Articular Surface Tendon Avulsion)**

The scapula (shoulder blade) forms a joint the humerus (upper arm bone). These bones are held together by ligaments and four muscles that form a cuff of tendons around the joint. The muscles include the supraspinatus, infraspinatus, teres minor and subscapularis. The rotator cuff helps control motion at the joint by allowing full-circle rotation and stabilization of the shoulder at the same time.

The rotator cuff is at risk to become inflamed (tendonitis), but it is also at risk to tear in athletes who throw overhead. In young athletes, the tear occurs on the tendon at its insertion onto the arm bone. It occurs because the humerus pinches against the scapula during throwing, hitting or swinging a racquet above the head. The inner side of the rotator cuff can become pinched in between and subsequently become torn. It is relatively uncommon for young people to have complete tears of the rotator cuff tendon.

### **Symptoms**

Symptoms of a rotator cuff injury include:

- Pain and restriction of motion at the shoulder joint
- Shoulder weakness
- Pain on the top of the shoulder when performing overhead activities
- Pain with lying on the involved shoulder

### **Diagnosis**

A doctor will examine the shoulder and arm to assess strength, joint stability and range of motion, and to check for pinching or a tear of the tendons. Most cases of rotator cuff tendonitis can be diagnosed by an exam. An MRI would be done with a special dye injected into the shoulder to better visualize the tears in the rotator cuff.

### **Treatment**

Treatment begins with limiting overhead motion and staying away from the sports that cause pain, until the problem is resolved. Rest is important to prevent further injury, since inflamed tendons are more likely to tear. Ice and anti-inflammatory medication also can help reduce swelling and pain. After a period of rest, physical therapy can re-establish range of motion at the joint and strengthen all of the shoulder muscles, including the rotator cuff. If there is no improvement with a course of therapy, you may require arthroscopic surgery to clean up the tear and evaluate the rest of the joint for other injuries. Rarely, the rotator cuff tear may require a full repair.