

## ***SUBSCAPULARIS DISRUPTION***

### **DESCRIPTION**

Pain and weakness of the shoulder due to partial or complete tearing of the subscapularis muscle and tendon from the upper arm (humerus). The subscapularis is one of the 4 rotator cuff muscles that surround the ball of the shoulder (humeral head). The subscapularis is the muscle in the front of the humeral head. It is the strongest of the 4 cuff muscles. The muscle attaches directly to the humerus in the lower 25% and via a tendon for the rest. The main function of the subscapularis is to help maintain the humeral head in the center of the socket and provide strength for rotating the arm inwards. This is an uncommon injury. It may occur as part of a rotator cuff tear.

### **FREQUENT SIGNS AND SYMPTOMS**

- Pain about the shoulder, often in the front of the shoulder and upper arm. The pain is worse with shoulder function, especially when reaching overhead or lifting.
- Occasionally tenderness, swelling, warmth and/or redness over the of the shoulder.
- Loss of strength, especially inward rotation of the shoulder and arm
- Increased outward rotation motion of the shoulder
- Crepitation (crackling sound) when the shoulder is moved
- Biceps tendon pain and inflammation (in the front of the shoulder) which is worse with bending the elbow or lifting
- Recurrent shoulder dislocation (if rupture is associated with, or caused by, initial dislocation)

### **CAUSES**

- Violent outer rotation of the shoulder / arm
- Hyperextension of the shoulder
- Direct blow to the shoulder or fall
- Activity too soon after shoulder surgery (especially shoulder stabilization surgery)
- Shoulder dislocation

### **RISK INCREASES WITH**

- Contact sports such as football, wrestling, basketball
- Previous injury to rotator cuff
- Poor physical conditioning (strength/flexibility)
- Inadequate warm-up prior to practice or play
- Inadequate protective equipment
- Shoulder dislocation
- Surgery that requires moving the subscapularis

### **EXPECTED OUTCOME**

Subscapularis tears do not heal on their own. Surgery is often recommended to optimize shoulder strength, alleviate pain, improve function and help prevent recurrent dislocation

## **POSSIBLE COMPLICATIONS**

- Persist pain
- Shoulder stiffness, frozen shoulder or loss of motion (uncommon)
- Persistent weakness
- Recurrence of symptoms, especially if treated without surgery
- Inability to return to same level of sports
- Recurrent shoulder dislocation
- Risks of surgery, including infection, bleeding, injury to nerves, shoulder stiffness, weakness, re-tear of subscapularis, persistent pain

## **GENERAL TREATMENT CONSIDERATIONS**

Initial treatment consists of medication and ice to relieve the pain, stretching and strengthening exercises. These all can be carried out at home, though referral to a physical therapist or athletic trainer may be prescribed. Surgery to reattach the tendon to the humerus is almost always recommended. This can be done open or arthroscopically. Surgery performed after 6 months has a poorer result than if performed within the first 3 months following injury. Surgery is performed open. Return to full activity usually requires 6 - 12 months.

## **MEDICATION**

- Non-steroidal anti-inflammatory medications, such as aspirin and ibuprofen (do not take if surgery planned in 7 days or less), or other minor pain relievers, such as acetaminophen, are often recommended. Take these as directed by your physician. Contact him/her immediately if any bleeding, stomach upset or an allergic reaction occurs.
- Strong pain relievers may be prescribed as necessary. Use only as directed and only as much as you need.

## **HEAT AND COLD:**

- Cold is used to relieve pain and reduce inflammation. Cold should be applied for 10 - 15 minutes every 2-3 hours for inflammation and pain, and immediately after any activity which aggravates your symptoms. Use ice packs or an ice massage.
- Heat may be used prior to performing stretching and strengthening activities prescribed by your physician, physical therapist or athletic trainer. Use heat pack or a warm soak.

## **NOTIFY OUR OFFICE IF**

- Symptoms get worse or do not improve in 2-4 weeks despite treatment
- You experience pain, numbness, or coldness in the hand
- Blue, gray or dusky color appears in the fingernails
- Any of the following occur after surgery:
  - Increased pain, swelling, redness, drainage or bleeding in the surgical area.
  - Signs of infection (headache, muscle aches, dizziness, or a general ill feeling with fever)
- New, unexplained symptoms develop. Drugs used in treatment may produce side-effects.