

## ***PECTORALIS MAJOR TENDON RUPTURE / TEAR***

### **DESCRIPTION**

Partial or complete rupture of the Pectoralis Major Tendon. This structure is the tendon attachment of the pectoralis major muscle to the arm (humerus). The pectoralis major muscle becomes a tendon at the outer chest and the tendon attaches into the humerus. There is loss of continuity between the pectoralis major muscle and the humerus and thus, loss of function of this muscle. The function of the pectoralis major is to forcefully bring the arm to the midline or across the body as well as to rotate the arm inwards. Usually this injury is the tendon pulling off the humerus, though occasionally the muscle may tear in the mid-belly or at the junction where the muscle becomes tendon.

### **FREQUENT SIGNS AND SYMPTOMS**

- A “pop” or rip or tearing and severe sharp, often burning pain is felt in the chest at the time of injury
- Tenderness, swelling, warmth and/or redness, and later bruising, over and around the pectoralis muscle-tendon, chest, and armpit region
- Pain and weakness trying to forcefully bring the arm across the body or rotate the arm inward
- Loss of contour of the armpit region, especially when pushing your hands together in front of your body
- Loss of firm fullness when pushing on the area where the tendon ruptured (a defect between the ends of the tendon and bone where they separated from each other).

### **CAUSES**

- Sudden episode of stressful over-activity
- Direct blow or injury to the chest.
- Fall from a height

### **RISK INCREASES WITH**

- Sports that require excessive muscle stress, such as with bench press weight lifting
- Contact sports with minimal protective devices to chest
- Wrestling
- Poor physical conditioning (strength/flexibility)
- Previous pectoralis major tendon Injury, including untreated pectoralis major tendinitis
- Cortisone injection into the pectoralis major tendon
- Oral anabolic steroid use

### **EXPECTED OUTCOME**

Usually curable with appropriate treatment. Return to sports is usually after 6 to 9 months

### **POSSIBLE COMPLICATIONS**

- Weakness of the arm / pectoralis major, especially untreated.
- Re-rupture of the tendon after treatment
- Prolonged disability
- Risks of surgery, including infection, injury to nerves (numbness, weakness or paralysis), bleeding, hematoma, pseudocyst, shoulder stiffness, shoulder weakness, pain with strenuous activity
- Loss of chest / armpit contour
- Inability to repair rupture.

## **GENERAL TREATMENT CONSIDERATIONS**

Initial treatment consists of rest and icing the area. A sling may be given for comfort. Small or partial pectoralis major tendon injuries may be treated with heat, ultrasound and shoulder motion exercises. These may be done with the assistance of the physical therapist or athletic trainer. Strengthening may be started after a few weeks.

Treatment of complete tears is somewhat controversial. Tears in the midbelly and at the muscle-tendon junction are usually not amenable to repair and are thus treated without surgery.

For the active athlete, surgical reattachment of the tendon to the humerus is often advocated. Without surgery the loss of normal armpit contour and weakness of the shoulder will persist. Repair within the first few weeks provides a better result and is technically easier to perform. After surgery and immobilization, physical therapy is usually needed to regain shoulder motion and strength.

## **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.
- Pain relievers may be prescribed by your physician. Use only as directed and only as much as you need.

## **COLD THERAPY:**

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.

## **NOTIFY OUR OFFICE IF**

- Pain increases, despite treatment
- Any of the following occur after surgery:
  - Signs of infection including fever, increased pain, swelling, redness, drainage or bleeding in the surgical area.
- New, unexplained symptoms develop. Drugs used in treatment may produce side-effects.