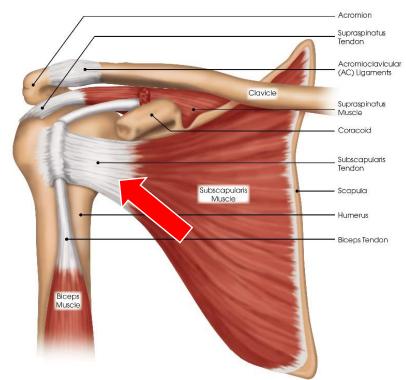
# SHOULDER, KNEE & SPORTS MEDICINE

# Pectoralis Major Tendon Transfer for Irreparable Subscapularis Tears

#### **Indications for Surgery**

The rotator cuff is a group of four muscles that run from the scapula (shoulder blade) and attach to the humeral head (top of upper arm bone) by their tendons. The subscapularis is one of the rotator cuff muscles that runs from the underside of the scapula (shoulder blade) to the front of the humerus (arm bone) and is responsible for helping stabilize and rotate the shoulder. When the rotator cuff is injured, the tendon is typically torn off the humerus (upper arm bone), retracts and cannot heal back on its own.



MRI of torn subscapularis tendon with retraction. Small arrow indicates where the subscapularis muscle should be attached to the humerus.

Illustration of intact subscapularis tendon

Rotator cuff tears tend to progress and become larger and more symptomatic. Additionally, as time goes by the rotator cuff tendon retracts further and the rotator cuff muscle atrophies (shrinks and weakens) and degenerates (irreversibly turns to useless fat and scar tissue). This makes the repair technically more difficult (potentially not possible) and the rotator cuff





## SHOULDER, KNEE & SPORTS MEDICINE

becomes less likely to heal and function normally. Once the rotator cuff reaches a point of significant atrophy and retraction, it is not reparable, and transfer of the pectoralis major muscle may be helpful in regaining some of the lost function of the subscapularis and shoulder.

#### **Contraindications to Surgery**:

- Infection
- Shoulder stiffness
- Inability or unwillingness to complete the postoperative program including immobilizing the shoulder in a sling for six to eight weeks and performing physical therapy three times per week for four to six months
- Patients with poor general health that are not well enough to proceed with surgery
- Shoulder arthritis that would prevent a successful outcome from muscle transfer surgery
- Arthritis

### **Potential Surgical Risks and Complications:**

- Infection
- Injury to nerves (numbness, weakness, paralysis) of the shoulder and arm
- Continued or recurrence of pain
- Failure of the pectoralis major transfer to heal
- Stiffness or loss of motion of the shoulder
- Inability to return to the same level of athletics or work
- Persistent weakness of the shoulder
- Finding damage to other structures such as the biceps tendon, labrum, and articular cartilage that may require further treatment at the time of surgery.

#### **Hospitalization and Anesthesia**

- Outpatient surgery (you go home the same day)
- General anesthetic with interscalene block (See Your Surgical Experience booklet)

#### **General Surgical Technique**

Dr. Chudik approaches rotator cuff tears arthroscopically through small incisions (arthroscopic portals) and can repair the great majority of tears entirely arthroscopically. Sometimes if the tendon is too far retracted or will not reach the correct attachment, Dr. Chudik may need to make a small open incision to repair the tendon. When the subscapularis rotator cuff cannot reach back to its anatomic position, the pectoralis major muscle tendon can be accessed through the same incision, detached from its normal insertion site on the humerus



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### SHOULDER, KNEE & SPORTS MEDICINE

and redirected to replace the unrepairable subscapularis muscle. Following this procedure, the patient will be immobilized for six to eight weeks in a sling with no active use of the operative shoulder, followed by six months of physical therapy.

#### **Preoperative Instructions**

- Discontinue birth control pills
- Stop blood thinners such as aspirin, Coumadin<sup>®</sup>, Lovenox<sup>®</sup>, Xarelto<sup>®</sup> according to the prescribing doctor's directions
- Stop anti-inflammatory medicines such as ibuprofen, Advil<sup>®</sup>, Motrin<sup>®</sup>, Naprosyn<sup>®</sup>, Alleve<sup>®</sup>, etc.
- Stop nutritional supplements and drinks like Vitamin C, ginseng, ginkgo biloba, etc.
- Stop smoking for surgery and during the first six weeks postoperatively to allow proper tissue healing

#### Do not eat or drink anything from midnight, the evening before surgery

#### **Post-operative Course**

- You will use a sling at all times except for bathing, dressing and exercising for six to eight weeks following surgery, especially while you sleep. This prohibits driving.
- You **will not** be allowed to actively move your repaired shoulder (moving it with its own shoulder muscles) and possibly your elbow (if the biceps tendon is involved) for at least six to eight weeks following surgery in order to protect the repair and allow healing.
- You may feel more comfortable sleeping sitting upright (on a couch or recliner chair) after surgery.
- Keep the wound clean and dry for three days following all arthroscopic surgery and ten to 14 days following open surgery. You may shower lightly after three days (all arthroscopic) and 14 days (open surgery), but wounds cannot be submerged under water for three weeks.
- Driving after six to eight weeks.
- Return to school/sedentary work in less than one to two weeks as long as you are in your sling and do not use the extremity. No typing, writing or purposeful movement.
- Physical therapy should begin two to three days after surgery and continue for four to six months. The success of rotator cuff repair is highly dependent on the post-operative rehabilitation. It is crucial to follow through on and maintain a proper therapy schedule.



## SHOULDER, KNEE & SPORTS MEDICINE

#### **Return to Activity**

You may return to unlimited activities when there is no pain, full shoulder range of motion and muscle strength, endurance and functional use has been restored. This usually requires greater than six months following a muscle transfer surgery. Dr. Chudik will tell you when it is safe to resume all activities. Dr. Chudik has special protocols for returning to throwing and golf.

#### **Scheduling Surgery**

Contact Dr. Chudik's surgery scheduler at 630-324-0402 or *contactus@chudikmd.com* to:

- Schedule the date and location of surgery (the hospital will call the day before with the confirmed arrival time)
- Schedule a pre-operative appointment
- Schedule a post-operative appointment to remove sutures and review post-operative instructions

### Notify My Office if Symptoms Worsen



