

## **ROTATOR CUFF REPAIR REHABILITATION PROGRAM**

Rotator cuff repair can be performed with an “all open”, “all arthroscopic” or “mini-open arthroscopically-assisted” technique. The advantage of the latter two techniques is that detachment of the deltoid is avoided which results in improved post-operative pain in most patients. The all arthroscopic technique is technically difficult to perform but can further reduce pain and scarring after surgery. Regardless of which technique is selected most patients will require concomitant acromioplasty, coracoacromial ligament resection and bursectomy. A distal clavicle resection is performed in cases of symptomatic AC joint arthritis. The rehabilitation process is divided into four phases. These phases may overlap depending on the **individual progress** of each patient.

### **PHASE I: PRE-OPERATIVE**

With this protocol, patients presenting with a rotator cuff tear may be seen in physical therapy prior to a rotator cuff repair. The area of focus with the preoperative visit includes preparing the shoulder for surgery and mental preparation of the patient to deal with surgery and the postoperative rehabilitation course.

### **CLINICAL GOALS**

- ◆ Restore active and passive range of motion as tolerated
- ◆ Decrease the patient’s pain level.
- ◆ Ensure complete understanding of surgery and postoperative rehabilitation
- ◆ Issue Shoulder Kit
  - Wand
  - Door pulley
  - Therabands

Exercise booklet

### **TESTING**

- ◆ Bilateral ROM
  - Assess functional ability

### **EXERCISES**

- ◆ Codman's
- ◆ PROM exercises for flexion, extension, external rotation, and internal rotation
  - Pulley exercises for elevation
- ◆ Wand exercises if tolerated
- ◆ Thera-tubing if tolerated
- ◆ Scapular Protraction, retraction, shrugs

## **PHASE II: 0 TO 6 WEEKS AFTER SURGERY\*\***

### **CLINICAL GOALS**

- ◆ Pain free ADL's in immobilizer 24/7
- ◆ Daily compliance with HEP 4x/day
- ◆ Pain free sleep through the night

### **TESTING**

- ◆ Bilateral ROM

### **EXERCISES**

- It is important to begin active scapular exercises as soon as possible including shrugs, protraction and retraction exercises.
- The patient's shoulder will be protected in an abduction immobilizer to allow healing of the repaired musculotendinous unit. This protection is 24 hours per day except when performing **passive** ROM exercises and bathing. However, patients are allowed waist level and hand to face activities (e.g. eating, writing, keyboarding) as tolerated. Protection is achieved with a shoulder immobilizer.
- Begin hand/wrist/elbow motion and grip strengthening to reduce stiffness/swelling and to encourage circulation.
- Early passive range of motion exercises in supine position for flexion and external rotation will begin one day post-op. The patient is instructed in these exercises as well as Codman and pulley exercises for elevation.
- Ice should be utilized after exercise during this phase to control pain and swelling.
- CPM is utilized for many patients in order to provide PROM.

### **CLINICAL FOLLOW-UP**

- ◆ Patient will return to see the physician 1 week, 4 weeks and 8 weeks post-op.
- ◆ Patient will follow up with physical therapist as needed during this phase to check progress (usually 2-3 x/week).

- ◆ Patient should have **75% of passive** range of motion compared to the noninvolved side, measured in flexion, external rotation in neutral, and internal rotation behind the back.

### **PHASE III: 6 WEEKS TO 3 MONTHS**

#### **CLINICAL GOALS**

- ◆ Passive ROM at 6 weeks equal to 75% of noninvolved side for:
  - flexion
  - external rotation
  - internal rotation
- ◆ Full ROM (equal to noninvolved side) between 6 and 12 weeks
- ◆ Begin strengthening

#### **TESTING**

- ◆ Bilateral ROM
- ◆ Assess functional ability

#### **EXERCISES**

- ◆ 4-6 weeks - discontinue using the immobilizer
- ◆ Begin **Active** ROM exercises:
  - Active assistive ROM using wand
  - Active shoulder flexibility exercises
- ◆ Begin progressive resistance exercises as tolerated:
  - 6wks: **Submaximal Isometrics** exercises in all planes.
  - 6-10 wks: **Theraband exercises**; grade of tubing and exercise disposition (concentric or eccentric) will vary according to the patient's strength and tolerance. **Start** with internal/external rotation with the elbow tucked at the patient's side then progress to flexion/abduction to 90 degrees, extension and adduction.
  - 8- 12 wks: Dumbbell exercises for the rotator cuff are implemented **after** satisfactory

**Emphasis** must be made on proper scapular stabilization and control. Accurate assessment of the scapular stabilizing musculature strength and flexibility is critical to proper shoulder function.

#### **CLINICAL FOLLOW-UP**

- ◆ Patient will follow-up weekly with therapist for home exercise program updates
  - The patient should have full active and passive ROM (equal to noninvolved side) with good scapular control.
  - Adequate strength to perform pain free ADL's and non-labor, work related activities.

## PHASE IV: 3 TO 6 MONTHS

### CLINICAL GOALS

- ◆ Full ROM
- ◆ Maximize strength and function

### TESTING

- ◆ Bilateral ROM
- ◆ Strength evaluation using hand held dynamometer

### EXERCISES

- ◆ Begin a more **aggressive** shoulder stretching program as indicated. This may include selfstretching or partner stretching.
- ◆ Increase the resisted strengthening program to include **heavier** weight.
- ◆ Implementation of a **sport/activity specific** functional progression.
- ◆ Strengthening continued in areas of weakness as **documented**.
- ◆ Generally it takes 4-6 months for return to full activity and 6-9 months to reach full rehabilitation potential.

### CLINICAL FOLLOW-UP

- ◆ The patient will follow-up monthly or as needed between 3 and 6 months postop.
- ◆ The patient will return at 6 months postop to see the physician and the therapist.
  - 90% strength compared to noninvolved side determined by hand held dynamometer.
  - Patient should be performing pain free activities of daily living.
- ◆ Pain free with any and all activities at home, work, leisure sports or hobbies.

**\*\*As always progression through the Phases is individualized for each patient and a successful**