

## Large and Massive Open Rotator Cuff Repair (> 5 cm) Post-Operative Rehabilitation Protocol

<input type="checkbox"/> <small>Only follow if checked</small>	<p><b><u>SUBSCAPULARIS INVOLVEMENT PRECAUTIONS:</u></b></p> <ol style="list-style-type: none"> <li>1. Limit Passive ER to 45° until 4 weeks post-op</li> <li>2. Full PROM by 8-10 weeks post-op</li> <li>3. NO active/resisted IR until 6 weeks post-op</li> </ol>
<input type="checkbox"/> <small>Only follow if checked</small>	<p><b><u>BICEPS TENODESIS PRECAUTIONS:</u></b></p> <ol style="list-style-type: none"> <li>1. No Resisted elbow flexion for 8 weeks</li> <li>2. No Resisted shoulder flexion for 8 weeks</li> </ol>

**\*\*IF STARRED, REFER TO CHECKED PRECAUTIONS ABOVE**

**MAJOR OBJECTIVES** for rehabilitation are:

1. Full PROM by 10 – 12 weeks and full AROM by 12 – 14 weeks.
2. **No PRE's** or active or passive **extension** until **8 – 10 weeks**.
3. Due to anterior deltoid splitting, protect deltoid for 3 – 4 weeks.
4. Perform rehabilitation activities in some degree of abduction to avoid avascularity to supraspinatus tendon.
5. Issue home ranger pulleys to progress flexion in plane of scapula

### I. Phase One – Protective Phase (Week 0 – 8)

- Goals:**
- Decrease pain and inflammation
  - Protect the repair
  - Prevent/Decrease glenohumeral stiffness

#### Treatment:

- A. Week 0 – 4**
1. Brace or sling (4-6 weeks); per physician instruction only
  2. Pendulum exercises
  3. Pulley (flexion only)
  4. PROM: (taken to patient tolerance)
    - a. Flexion up to 130°
    - b. ER in the scapular plane to 45°
    - c. IR in the scapular plane (**week 2 – 3**)
  5. AROM of cervical spine, elbow, and wrist
  6. Grip and wrist strengthening
  7. Seated scapular retractions (**no shoulder extension**)
  8. Ice and pain modalities
  9. Supine ER with wand (**week 2**)
  - \*10. Isometrics (submaximal): ER, IR and elbow flex (week 2–3)**

**B. Week 4 – 8**

1. Discontinue brace or sling and continue all above exercises
2. Supine wand Flexion to 130° (assist with non-surgical arm)
3. Supine AAROM with therapist assistance or with hands clasped
4. Scapular PNF (Start with passive, progress to active then resistive)
5. Soft tissue and joint mobilization with appropriate precautions
- \*6. **Theraband IR, ER, and Extension to neutral (week 7 – 8)**
- \*7. **Supine IR/ER in scapular plane (week 6)**
8. Isometric extension and flexion (week 6)

**II. Phase Two – Intermediate Phase (Week 8 – 14)**

- Goals:** Establish full PROM (Week 10 – 12)  
 Gradually increase strength  
 Continue to decrease pain and inflammation  
 Correct scapular compensations

**Treatment:**

**A. Week 8 – 10 (begin with AROM then progress with weight)**

1. Wand exercises for AROM
  - a. Flexion to tolerance
  - b. IR/ER to tolerance (at 90° shoulder ABD)
2. Initiate isotonic strengthening (in available ROM without compensation):
  - a. Supine flexion to tolerance
  - b. Sidelying ER
  - c. Abduction to 90 degrees
  - d. Biceps and triceps
  - e. Scapular muscles (i.e. rows with theratube)
  - f. Serratus punches
3. Progress to seated/standing flexion (if patient cannot elevate arm without hiking, then do more humeral head stabilization exercises)
4. Single arm pull-downs with weight (may need assistance with scapular upward rotation to prevent hiking)
5. Supraspinatus (full/empty can to 90° with proper scapulohumeral rhythm)
6. UBE
7. Prone Extension, ABD, and rowing with emphasis on scapular adduction
8. Supine rhythmic stabilization 2 positions (A. 100 degrees flexion, 20 degrees horizontal abduction) and (B. ER/IR with 45° Abduction)

**B. Week 10 – 14**

1. Continue all above exercises
2. Progress rhythmic stabilization to various positions
3. PNF diagonals with isometric holds (gentle)
4. Bodyblade (begin in scapular plane and progress to more difficult positions) **(week 12)**
5. Advance and update home exercise program, including aerobic activities

### III. Phase Three – Advanced Strengthening Phase (Week 15 – 24)

- Goals:** Maintain full, non-painful ROM  
Continue to increase strength and neuromuscular control  
Gradual return to functional activities

**Treatment:**

**A. Week 15 – 20**

1. Continue all above exercises as needed
2. Self capsular stretches
3. Aggressive strengthening program
  - a. Shoulder flexion, IR, ER
  - b. Shoulder ABD to 90 degrees
  - c. Supraspinatus
  - d. Elbow flexors/extensors
  - e. Scapular strengthening
  - f. PNF patterns
  - g. Push-ups (Plus)
4. Proprioceptive training related to specific goals and tasks
5. General conditioning program
6. Total gym
7. Trunk/core stabilization

**B. Week 21 – 24**

1. Continue above exercises
2. Plyometric exercises
3. Initiate interval sport program
4. Determine plan for carrying through with independent home or gym exercise program

### IV. Phase Four – Return to Activity Phase (Week 24 and beyond)

- Goals:** Gradual return to recreational and sports activities  
Return to full activity at **4 months**

**Treatment:**

**A. Week 24 – 28**

1. Continue all strengthening exercises
2. Continue all flexibility exercises
3. Continue progression on interval programs
4. Determine plan for carrying through with independent home or gym exercise program

**\* Developed and approved by Rolando Izquierdo, M.D. (Updated March 2016)**