

# Large and Massive Arthroscopic Rotator Cuff Repair (> 3 cm) Post-Operative Rehabilitation Protocol

# SUBSCAPULARIS INVOLVEMENT PRECAUTIONS: 1. Limit Passive ER to 45° until 4 weeks post-op 2. NO active/resisted IR until 6 weeks post-op 3. Begin active ER early: 0 – 30° (at 30° of ABD) BICEPS TENODESIS PRECAUTIONS: 1. No Resisted elbow flexion for 8 weeks 2. No Resisted shoulder flexion for 8 weeks 3. No Lifting > 1 to 2 lbs. for 8 weeks

### \* IF CHECKED PRECAUTIONS IN BOX ABOVE SUPERCEDE PROTOCOL

### **MAJOR OBJECTIVES** for rehabilitation are:

- 1. 130° passive flexion and 30° passive ER seated/standing by (6 weeks) post-op.
- 2. Full PROM by 8-10 weeks and full AROM by (12 14 weeks).
- 3. Avoid Active Extension for (8 weeks)
- 4. **No PRE's** or Active or Passive extension until (8 10 weeks).
- 5. Issue pulleys to progress flexion in plane of scapula
- **6. ADL BOX Immediately:** Patient can generally use arm to eat, read, wash face, brush teeth, etc. in front of body (anterior to plane of scapula) without pain.
- 7. Always stabilize the scapula when performing strength exercise

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

Goals: Decrease pain and inflammation

Protect the repair

Prevent/Decrease glenohumeral stiffness

# **Treatment:**

### A. Post-op Week 0-4

- 1. Brace or sling (4-6 weeks based on tissue quality)
  - a. per physician instruction
- 2. Pendulum exercises- Immediately
- 3. Pulleys Shoulder flexion (Week 1)
- 4. Seated Table walk-outs (walk hand out and back on table)
- 5. Passive Stretching in Supine:
  - a. Flexion 130°
  - b. ER in the scapular plane to 30°
- 6. AROM of cervical spine, elbow, and wrist
- 7. Grip and wrist strengthening
- 8. Seated scapular retractions (no shoulder extension)
- 9. Ice and pain modalities
- 9. Supine ER with wand (week 2)



10. AAROM exercises (use of cane for ER with towel under elbow)

### B. Week 4-8

- 1. Discontinue brace or sling and continue all above exercises (4-6 weeks)
- 2. Pulley (flexion in plane of scapula)
- 3. Active Assisted Supine cane Flexion to 130° (assist with non-surgical arm)
- 4. Supine AAROM with therapist assistance or with hands clasped
- 5. AROM: NO RESTRICTIONS (progress from supine to semi-recumbent gatching") "gatching" is finding the critical point in their vertical angulation where they can still have some gravity resistance and work their forward elevation.
- 6. Scapular PNF (Start with passive, progress to active then resistive)
- 7. Soft tissue and joint mobilization with appropriate precautions
- 8. UBE- No resistance (6 week)
- \*9. Isometrics (manual submaximal): ER, IR and elbow flex (week 6)
- \*10. Supine IR/ER in scapular plane (week 6)
- \*11. Theraband IR, ER, and Extension to neutral (week 7-8)

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

Goals:

Establish full PROM (Week 8 to 10)

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



### C. Week 10 - 14

- 1. Continue all above exercises
- 2. Full AROM by 12 14 weeks
- 3. Progress rhythmic stabilization to various positions
- 4. PNF diagonals with isometric holds (gentle)
- 5. Bodyblade (begin in scapular plane and progress to more difficult positions) (week 12)
- 6. Advance and update home exercise program, including aerobic activities

### III. Phase Three – 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
- 5. Common Questions with Return to Golf
  - Return to putting: 8 weeks
  - Return to Chipping and ½ swing pitches: 10-12 weeks
  - No full swings until 4 months
  - The gradually progress to playing 9 holes by 5 months post op