

## REHABILITATION FOLLOWING OPEN/ARTHROSCOPIC BICEPS TENODESIS

**PRECAUTIONS:**

- No heavy object lifting overhead
- No jerking movements
- Do not use affected shoulder in sitting or rising
- No active biceps contractions for 4-6 weeks
- No active shoulder flexion for 4-6 weeks

Sling x 4 weeks (brace/abduction pillow for first 2)

### **Phase I. Protection Phase (0-2 weeks)**

**Goals:**

- Re-establish non-painful ROM
- Retard muscular atrophy
- Re-establish dynamic stabilization
- Decrease pain/inflammation

A. Week One

Range of Motion:

- Pendulums
- Rope and pulley (non painful arc of motion)
- L-bar exercises (Elevation in scapular plane and ER/IR beginning at 30 degrees abduction and progressing to 45 degrees abduction
  - Shoulder PROM flexion approx. 90° initially then gradually increase during first 2 weeks
  - Shoulder PROM ER/IR @ 45° ABD to tolerance (caution w/ excessive ER)
  - Elbow PROM initially 20°- 90 then gradually increase

Strengthening exercises:

- Submaximal, pain free shoulder isometrics- extension abduction, ER, IR
- Rhythmic stabilization exercises (ER/IR and extension)

Decrease pain/inflammation:

- Ice, NSAIDS, modalities

B. Week Two

- Continue all Rom exercises
- May initiate heat prior to exercise
- Initiate ER/IR with L-bar at 90 degrees abduction
- Progress elevation to full Rom
- Progress isometrics
- Initiate ER/IR tubing at 0 degrees abduction
- Elbow PROM week 2: 10° - 125°

## **II. Early Motion Phase (Week 3-6)**

### **Goals:**

- Regain and improve muscular strength
- Normalize arthrokinematics
- Improve neuromuscular control of the shoulder complex
- Diminish pain

Criteria to progress to Phase II:

1. Full ROM
2. Minimal pain and tenderness
3. Good MMT or IR, ER, flexion

### A. Week 3-4

#### Exercises:

- Initiate isotonic program (no weight)
- Shoulder elevation
- Prone rowing
- Sidelying ER
- Shoulder abduction to 90 degrees, begin shoulder ER/IR at 90 deg abduction
- Shoulder extension to neutral
- Scapular strengthening (no prone horiz abduction), exercises with elbow at 90 deg flexion
  
- After week 4, provided patient has no pain and proper form, initiate exercise with 1 pound weight
  
- Normalize arthrokinematics of shoulder complex
  - Continue L-bar ROM
    - Elevation in scapular plane
    - ER/IR at 90 degrees abduction
  
- Joint mobilization: Inferior, posterior and anterior glides

#### Decrease pain and inflammation:

- Continue use of modalities, ice as needed
- May use heat prior to exercise program

### C. Week 4-5: Progress to fundamental shoulder exercise program

## **Phase III. Dynamic Strengthening Phase (Week 6-12)**

### **Goals:**

- Improve strength/power/endurance
- Improve neuromuscular control
- Prepare athlete to return to sport

Criteria to progress to Phase III

1. Full non-painful ROM
2. No pain or tenderness

3. Strength 70% compared to contralateral side

A. Week 5-6

Exercises:

- Continue isotonic program – fundamental shoulder
- Progress strengthening exercises
- Continue neuromuscular control exercises for scapular muscles
- Continue endurance exercises
- Initiate active shoulder scaption to 90 (full cans)
- Initiate active shoulder abduction
- Initiate isometric biceps week 6-8

Week 8-12

- Continue all exercises
- Initiate light resistance strengthening program

**Phase IV: Return to Activity Phase (13-16)**

**Goals:** Progressively increase activities to prepare for full functional return

Criteria to progress to Phase IV

1. Full ROM
2. No pain or tenderness
3. Satisfactory muscular strength
4. Satisfactory clinical exam

A. Exercises:

- Continue ROM and strengthening program
- Continue self capsular stretches as needed
- Continue fundamental shoulder exercise program
- Initiate biceps isotonics
- Initiate plyometric activities (2 hand chest pass, side to side throws, soccer throws)
- Initiate sport program (week (10-12) if patient achieves specific criteria
- Initiate one hand plyometric drills (wall dribbles, baseball throws, shovel throws)
- Continue or initiate interval sports program
- Gradually return to overhead activities i.e. sports