

## 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 isolated biceps for 8 weeks

### I. Immediate Motion Phase (0-2 weeks)

Goals:

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

#### 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)

**Strengthening exercises:**

- Isometrics-flexion, extension abduction, ER, IR
- Rhythmic stabilization exercises (ER/IR and extension)

**Decrease pain/inflammation:**

- Ice, NSAIDS,modalities

#### 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

### II. Immediate Phase (Week 2-6)

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

**Week 2-3****Exercises:**

- Initiate isotonic program (no weight)
- Shoulder elevation
- Prone rowing
- Prone horizontal abduction
- Sidelying ER
- Shoulder abduction to 90 degrees
- Shoulder extension to neutral
  
- After one week, 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

**Week 4-5:** Progress to fundamental shoulder exercise program

**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 TOM
- 2) No pain or tenderness
- 3) Strength 70% compared to contralateral side

**Week 6-8****Exercises:**

- Continue isotonic program – fundamental shoulder
- Progress strengthening exercises
- Continue neuromuscular control exercises for scapular muscles
- Continue endurance exercises

**Week 9-12**

- Continue all exercises
- 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 isolated biceps isometrics

#### **IV. Return to Activity Phase (13-22)**

**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

**Exercises:**

- Continue ROM and strengthening program
- Continue self capsular stretches as needed
- Continue fundamental shoulder exercise program
- Initiate biceps isotonics
- 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