

**Ronak M. Patel, MD**

**Biceps Tenodesis**

**Rehabilitation Guidelines**

**\*may be in conjunction with rotator cuff repair rehab which takes precedence**

**Phase I: Immediate Motion Phase (Week 1 to Week 4)**

Goals: Allow healing of soft tissue, early-protected ROM, retard muscle atrophy, decrease pain/inflammation

Sling for 4 weeks (removed 2-3 times per day in order to perform the exercises that follow). Sling must be worn during sleep for the first 4 weeks.

**Week 1**

- 1) Wrist and hand AROM and gripping
- 2) Modalities prn for pain and inflammation

**Weeks 2-3**

- 1) Continue previous exercises
- 2) Pendulum exercises only with arm at 90 degrees
  - ELBOW CANNOT EXTEND PAST 90 DEGREES FOR THE FIRST 3 WEEKS- MUST STAY IN A SLING POSITION
  - EXTERNAL ROTATION LIMITED TO 20 DEGREES FOR 6 WEEKS
- 3) Initiate gentle pain-free passive ROM for shoulder forward elevation and external rotation; may progress to active assisted ROM
- 4) Initiate gentle elbow passive ROM

**Week 4**

- 1) Begin assisted range of motion with wand and pulley
- 2) Pendulum exercises
- 3) Active assisted range of motion of elbow

**Any strengthening activities related to elbow flexion, supination, or forward elevation of the arm with the elbow extended should be restricted until 9 weeks following biceps tenodesis.**

**Phase II: Intermediate Phase (Week 5 to Week 8)**

Criteria: Minimal pain and inflammation, stable shoulder Goals: Gradual increase in ROM, improve strength, decrease pain/inflammation

**Discontinue sling during day and night.**

- 1) Continue previous exercises
- 2) Initiate scapular strengthening with scapular retractions
- 3) Initiate AROM of elbow – pronation, supination, flexion, and extension
- 4) Gentle passive stretching at end of elbow ranges to maintain or increase flexibility
- 5) Initiate AROM of forward elevation in scapular plane beginning with gravity-eliminated positions (supine and side-lying) and progressing according to quality of motion (semi-recumbent, standing). Begin with elbow flexed and progress to elbow extended.
- 6) Isometrics with the arm at the side for rotator cuff or deltoid strengthening; may be advanced to elastic band with least resistance at week 7

**Any strengthening activities related to elbow flexion, supination, or forward elevation of the arm with the elbow extended should be restricted until 9 weeks following biceps tenodesis.**

### **Phase III: Strengthening Phase (Week 9 to Week 12)**

Criteria: Normal ROM, minimal pain

Goals: Improve strength and neuromuscular control, normalize arthrokinematics

- 1) Continue previous exercises
- 2) Initiate biceps isometrics; may advance to LIGHT (less than 1 lb) resisted biceps at week 10
- 3) Strengthening of triceps, rotator cuff, deltoid, and scapular stabilizers should be performed 3 times per week

**Stay high rep and low resistance with above exercises or any that affect the glenohumeral joint and may fire the biceps.**

### **Phase IV: Return to Activity Phase (3 months)**

Criteria: Full painless ROM, satisfactory clinical exam, muscle strength that fulfills work/sport requirements

- 1) Continue previous exercises
- 2) Advance biceps strengthening to 2 lb. or greater
- 3) Progress previous strengthening program; continue to increase weight resistance with isotonic
- 4) Focus exercises on eccentric strengthening of post. rotator cuff and scapular muscles
- 5) Add total body conditioning, including strength and endurance training if appropriate
- 6) Initiate sport/work specific drills or activities

**Initiate appropriate interval throwing, pitching, tennis, and golf program as appropriate at 16 weeks.**

Return to sport, work, and prior activity level unrestricted based on physician approval and completion of rehab

**Red Flags:**

OK to have mild discomfort with exercises, but if it persists > 1 hr., the intensity of the exercises must be decreased.

If there is an increase in night pain, the program must be altered to decrease the intensity.