

## Biceps Tenodesis Protocol

### Phase 1 – Passive Range of Motion (0-4 weeks)

#### Goals/Guidelines for

##### Phase 1:

- Therapy to start around 1-2 weeks post-op
- Sling abduction pillow worn for 3-4 weeks day/night or as indicated by physician
- Gentle elbow AAROM
- No resisted elbow flexion or forearm supination
- Full shoulder PROM, proceed slow with ER
- No soft tissue techniques to the proximal biceps tendon/tenodesis site
- Enhance/ensure adequate scapular function
- Pain Control

#### At Initial evaluation:

- Remove post-surgical dressings if needed
- Initial HEP to include scapular retractions, supported arm hangs, active assisted elbow and forearm motion, active wrist and hand motion
- Edema management
- Pain control

#### Example exercises for progression as able:

- Continue with scapular retraction/clocks
- Continue with pain free elbow/forearm PROM/AAROM: elbow flexion/extension and forearm supination/pronation
- Continue with wrist/hand AROM (flexion, extension, deviation, ball squeeze, tendon glides)
- Continue with supported arm hangs, progress to unsupported if pain free
- Continue with edema management for hand and wrist (tendon glides, tubigrip, edema glove, Kinesiotape)
- Modalities PRN for pain/inflammation
- Gentle soft tissue mobilization (avoid proximal biceps tendon/tenodesis site)
- Joint mobs grade 1&2, avoid posterior capsule stretching
- Shoulder PROM all planes, ER/IR at 45 degrees abduction, do not push into painful motion but no motion limitations
- Shoulder isometrics (abduction, adduction, ER, IR only)
- Cervical/thoracic stretching

#### Milestones to progress to phase II:

- Appropriate healing of the surgical incision
- Full PROM of shoulder and elbow
- Completion of phase I activities without pain or difficulty

## Phase II – Active Range of Motion (4-6 weeks)

### Goals/Guidelines for

#### Phase 2:

- Week 3-4: Wean from sling - may continue use with IADLs, in community, or overnight (as indicated by physician)
- Progress PROM to full range
- Elbow AROM into gentle strengthening
- Pain control
- No weight bearing through arms (i.e. no quadruped or pushing up from chair)
- Can return to light computer work
- Can begin light waist level functional activities

### Treatment/exercise for progression:

- Initiate gentle scar massage 2-3 days following suture removal
- Elbow and forearm AROM without resistance
- Joint mobs grade 3&4 to GH/SCJ/ACJ and scapulothoracic mobility including posterior capsule
- Shoulder AAROM pulleys, table slides, supported wall climbs (watch scapular control)
- Shoulder circles, ABCs
- Continue with shoulder isometrics
- Elbow isometrics flexion/extension, supination/pronation
- Arm bike, no resistance
- Thoracic mobilization and stretching exercises
- Modalities PRN for pain/inflammation

### Milestones to progress to phase III:

- Restore full AROM of shoulder and elbow
- Appropriate scapular posture at rest and dynamic scapular control with ROM
- Completion of phase II activities without pain or difficulty

## Phase III – Early Strengthening Phase (6-8 weeks)

### Goals/Guidelines for

#### Phase 3:

- Normalize strength, endurance, and neuromuscular control once pt has near full ROM
- Return to chest level full functional activities

### Treatment/exercise for progression:

- Continue A/PROM of shoulder and elbow as needed
- Initiate biceps curls with light resistance, progress as tolerated
- Initiate supination/pronation with light resistance
- Begin rhythmic stabilization drills: ER/IR in the scapular plane; Flexion/extension and abduction/adduction at various angles of elevation
- Body blade
- Strengthen shoulder flexion in scapular plane to 90 degrees
- ER strengthening in side lying
- Prone: extension, rowing, W, T, (avoid “I” and “Y”)

### Milestones to progress to phase IV:

- Appropriate rotator cuff and scapular muscular performance for chest level activities
- Completion of phase III activities without pain or difficulty

## **Phase IV - Strengthening (8-10)**

### **Goals/Guidelines**

#### **for Phase 4:**

- Maintain full non-painful AROM
- Avoid excessive anterior capsule stress

### **Treatment/Exercise for progression:**

- Closed chain exercises: pushups, wall ball circles, serratus press (progression: on wall, countertop, quadruped)
- IR strengthening: bands, free weights
- PNFs, diagonals

### **Milestones to return to overhead work and sport activities:**

- Clearance from MD
- No complaints of pain
- Adequate ROM, strength and endurance of rotator cuff and scapular musculature for task completion
- Compliance with continued home exercise program

## **Phase V – Sports/Advanced Strengthening (10+ weeks)**

### **Goals/Guidelines for Phase 5:**

- Return to full work and recreational activities
- Avoid excessive anterior capsule stress

### **Treatment/exercise for progression:**

- Weightlifting, cable column (avoid military press and wide grip bench press)
- Strengthening overhead if ROM and strength below 90-degree elevation is good
- Progressive return to upper extremity weightlifting program emphasizing the larger, primary upper extremity muscles
- Transition to work conditioning program if appropriate

This protocol was updated and reviewed by Dr. Carl DiRaimondo (MD), Rebecca Schnell (OTR), Megan McHenry (OTR), Baleigh Delorit (OTR) of Orthopedics & Sports Medicine BayCare Clinic Manitowoc on 9/9/2024.

## References:

- Wilcox III, R. B. (2016). Biceps tenodesis protocol. The Brigham and Women's Hospital, Inc. Department of Rehabilitation Services.
- Wilcox III, R. B. (2016). Arthroscopic rotator cuff repair protocol. The Brigham and Women's Hospital, Inc. Department of Rehabilitation Services.