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## **Biceps Tenodesis Protocol**

### **Days 0-27**

- **Immobilization: Remain in the sling with pillow for 4 weeks.**
- PT removes bandage on POD #3, keep steri-strips intact as long as possible
- If any drainage/oozing is present recover with 4x4's and notify Dr. Livermore's team
  
- **Elbow ROM:**
  - Passive ROM in all planes of motion
  - Gentle active assisted elbow motion
  - **Precautions:** No bicep tension for 6 weeks to protect repaired tissues (this includes long lever arm flexion ROM, no resisted forearm supination, elbow flexion or shoulder flexion)
- **Shoulder ROM:**
  - Pain free, gentle passive ROM for shoulder flexion, abduction, IR and ER
  - AAROM: pulleys (non painful arc of motion)
    - **Shoulder Precautions:**
      - ER as tolerated but do not force into end feel or pain.
      - NO extension or horizontal extension past the body for 4 weeks.
  - Cervical spine and scapular active range of motion
- **Isometrics**
  - Begin submaximal isometrics for IR, ER, abduction and adduction week 3

### **Days 28-41**

- **Immobilization:** Remove abduction pillow, allowed to wean from the sling as pain tolerates. Caution against resisted elbow flexion or shoulder flexion to protect repair.
  - **Precautions:** No bicep tension for 6 weeks to protect repaired tissues (this includes long lever arm flexion ROM, no resisted forearm supination, elbow flexion or shoulder flexion)

- **Elbow ROM:**
  - Continue passive and active assisted elbow ROM
- **Shoulder ROM:**
  - Continue gentle passive ROM for flexion, abduction, ER, and IR. Goal of full shoulder ROM by week 6.
  - Joint mobilization: inferior and posterior glides
  - AAROM: pulleys (non painful arc of motion)

### **Week 6-8 Post op**

- **Goals:**
  - Achieve full active ROM
  - Achieve full rotator cuff strength with arm in neutral
- **Elbow Strengthening:**
  - Begin active elbow flexion and supination without resistance
- **Shoulder Exercise:**
  - Normalize arthrokinematics of shoulder complex with active motion
  - Prone rowing to neutral
  - Prone horizontal abduction to neutral
  - Sidelying ER
  - Shoulder ER/IR resisted band exercises at neutral
  - Continue with passive and AAROM exercise as needed to achieve full ROM

### **Week 8 - 12 Post Op**

- **Goals:**
  - Full active ROM with normal scapular mechanics
  - Full strength with rotator cuff at 90 degrees of abduction in scapular plane
  - Full scapular strength
- **Exercises:**
  - Begin gentle biceps resistance exercises. Focus on light weight / high reps (max 8-10 lbs.) for Weeks 8-10 – include both elbow flexion and forearm supination.
    - May advance biceps strengthening without limit after Week 10 (both flexion and supination).
  - Continue prior scapular and rotator cuff strengthening
  - General shoulder strengthening exercises
  - Balance board in push up position
  - Prone swiss ball walkouts
  - Rapid alternating movements in supine D2 diagonal

### **Week 12 - 15**

- **Goals:**
  - Demonstrate stability with higher velocity movements and change of direction
  - Full rotator cuff strength with multiple rep testing at 90 degrees abduction
- **Exercises:**
  - Begin working toward more functional activities including core and hip strength with shoulder exercises
  - Higher velocity activities, including plyometrics and rapid Theraband drills

### **4 Months +**

- Initiate throwing program, overhead racquet program or return to swimming or as directed by Dr. Livermore.

Progression within the time frames along with modality usage is left up to the discretion of the treating therapist. Please contact Dr. Livermore if a patient is struggling with PROM before their 6-week recheck appointment. If you have questions regarding this protocol, please contact (316) 630-9300