



## Shoulder: Biceps Tenodesis Protocol

**Dr. Adam V Metzler,**

**Sports Medicine and Trauma Orthopaedic Surgery**

If you have any questions about this protocol or about the patient, do not hesitate to email Dr. Metzler at: [ametzler@orthonky.com](mailto:ametzler@orthonky.com)

The purpose of this protocol is to provide the clinician, therapist, and patient with a GUIDELINE of the postoperative rehabilitation course of a patient that has undergone a Biceps Tenodesis for biceps dysfunction.

### **Phase I – Passive Range of Motion Phase (starts approximately post op weeks 1- 4)**

Goals:

1. Alleviate shoulder pain and inflammatory response
2. Achieve gradual restoration of passive range of motion (PROM)
3. Enhance/ensure adequate scapular function
4. Precautions/Patient Education:
5. **NO resistive biceps strengthening x 6 weeks**
6. **Patient must be advised to avoid active supination x 6 weeks(ex:opening door knob, using a screwdriver)**
7. NO excessive shoulder external rotation range of motion (ROM) / stretching. Stop when you feel the first end feel.
8. Use of a sling to minimize activity of biceps x 3 weeks
9. Ace wrap upper forearm as needed for swelling control
10. NO lifting of objects with operative shoulder
11. Keep incisions clean and dry
12. No friction massage to the proximal biceps tendon / tenodesis site
13. Patient education regarding limited use of upper extremity despite the potential lack of or minimal pain or other symptoms

Activity:

1. Shoulder pendulum hang exercise
2. PROM elbow flexion/extension and forearm supination/pronation
3. AROM wrist/hand
4. Begin shoulder PROM all planes to tolerance /do not force any painful motion
5. Scapular retraction and clock exercises for scapula mobility progressed to scapular isometric exercises
6. Ball squeezes
7. Sleep with sling as needed supporting operative shoulder, place a towel under the elbow to prevent shoulder hyperextension
8. Frequent cryotherapy for pain and inflammation
9. Patient education regarding postural awareness, joint protection, positioning, hygiene, etc.
10. May return to computer based work

Milestones to progress to phase II:

1. Appropriate healing of the surgical incision
2. Full PROM of shoulder and elbow
3. Completion of phase I activities without pain or difficulty

### **Phase II – Active Range of Motion Phase (starts approximately post op week 5-6)**

Goals:

1. Achieve gradual restoration of AROM
2. Begin light waist level functional activities
3. Wean out of sling by the end of the 2-3 postoperative week
4. Return to light computer work

Precautions: No lifting, pushing, pulling

Activity:

1. Begin gentle scar massage and use of scar pad for anterior axillary incision
2. Progress shoulder PROM to active assisted range of motion (AAROM) and AROM all planes to tolerance
3. NO resistance exercises. Active elbow flexion/extension and forearm supination/pronation for 6 weeks
4. Begin incorporating posterior capsular stretching as indicated

### **Phase III – Strengthening Phase (starts approximately post op week 7-9)**

Goals:

1. Normalize strength, endurance, neuromuscular control
2. Return to chest level full functional activities

Precautions:

Do not perform strengthening or functional activities in a given plane until the patient has near full ROM and strength in that plane of movement

Activity:

1. Continue A/PROM of shoulder and elbow as needed/indicated
2. Initiate biceps curls with light resistance(therabands only for first 2 weeks of strengthening)
3. Initiate resisted supination/pronation
4. Begin rhythmic stabilization drills
5. External rotation (ER) / Internal Rotation (IR) in the scapular plane
6. Milestones to progress to phase IV:
7. Appropriate rotator cuff and scapular muscular performance for chest level activities
8. Completion of phase III activities without pain or difficulty

### **Phase IV – Advanced Strengthening Phase (starts approximately post op week 10)**

Goals:

1. Continue stretching and PROM as needed/indicated
2. Maintain full non-painful AROM
3. Return to full strenuous work activities
4. Return to full recreational activities

Precautions:

1. Avoid excessive anterior capsule stress
2. With weight lifting, avoid military press and wide grip bench press.

### **Phase III (12-24 weeks)- Functional return**

Goals

1. Pain free return to full activities with normal shoulder girdle strength
2. Continue strengthening with increased weights, endurance and speed. May begin adding free weights to program as indicated.
3. Progress plyometric program light too heavy

4. Possible return to most sports activities after 4 months as directed or approved by physician

**Exercises:**

1. Continue strengthening scapula/shoulder/trunk
2. Simulate sports specific activities: tennis, golf, baseball as appropriate
3. Initiate interval throwing program 3-4 weeks after completing plyometric program