

**Protocol S12**  
**Physical Therapy Protocol for Long Head of Biceps Tenodesis**  
**(Arthroscopic Technique)**

**Phase I: Protection Phase (Weeks 0-4)**

FOCUS: Passive range of motion (ROM)

GOALS:

- Minimize pain and inflammation.
- Maintain integrity of biceps repair.
- Regain full passive forward flexion of operated shoulder.

ANCILLARY MEASURES:

- Use pain medications as needed.
- Ice the shoulder (polar pack) as needed.
- Wear shoulder immobilizer at all times (except during exercises) for first 3-4 weeks. Then transition to use of basic arm sling up to week 6.

EXERCISES:

- **Codman's Pendulum:** Stand adjacent to a chair or table and bend slightly at the waist. Support your body weight by leaning on the chair or table with the opposite arm. Let the full weight of the operated arm hang freely. Gently swing the operated arm forward and back, side to side as tolerated for 15 seconds. Progress to 3-5 minutes. Repeat 4-6 times each day.
- **Passive Forward Flexion:** Use a therapy helper or your opposite arm to gently raise the operated arm up in front. Start with operated arm at your side and passively bring hand to your mouth, then to forehead, then to back of head. Repeat 4-6 times per day, 10-12 repetitions. Goals for motion are as follows: week 1: 130 degrees; week 3: 145 degrees; week 4: full overhead elevation. May begin active-assisted flexion at week 3.
- **Passive Shoulder Abduction:** Begin this exercise at week 3. Start with arm at side. Gradually lift operated arm with therapy helper or opposite arm out to side in abduction.
- **Passive External/Internal Rotation:** Begin this exercise at week 3. Arm motion should be in scapular plane. Use a therapy helper or opposite arm to move operated arm away from body and across in the front.
- **Hand/Wrist/Elbow ROM:** Active ROM of the elbow, wrist and fingers on the operated side is encouraged. Gripping exercises are allowed.

PRECAUTIONS:

- NO biceps resistance exercises.
- NO shoulder abduction or external rotation for the first 2 weeks postop.

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**Phase II: Motion Phase (Weeks 4-6)**

**GOALS:**

- Restore full passive and active range of motion (ROM).
- Begin muscular strengthening of scapular muscles.

**ANCILLARY MEASURES:**

- Use pain medication as needed. Transition to non-narcotics such as Tylenol or ibuprofen.
- Continue use of ice as needed after exercises and with pain.
- Shoulder immobilizer is discontinued. Use basic arm sling through week 6.

**EXERCISES:**

- **Continue all Phase I** exercises.
- **Active Forward Flexion:** Without use of a therapy helper or the opposite arm, raise up operated arm in front. Push to peak so as to gradually increase motion. Repeat 4-6 times per day, 10-12 repetitions.
- **Active Range of Motion:** Perform active shoulder ROM in all planes to restore full motion. Repeat 4-6 times per day, 10-12 repetitions.
- **Isometric Flexion/Extension/Abduction with Wall:** Use a stationary wall to provide resistance against shoulder flexion, extension and abduction. (Your arm should not move, but you should feel your shoulder muscles tightening.)

**PRECAUTIONS:**

- No lifting with operated arm.
- No push up from chairs or pushing to open doors with operated arm.

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**Phase III: Strengthening Phase (Weeks 6-12)**

**GOALS:**

- Maintain full, active, pain-free ROM.
- Increase muscular strength.
- Return to daily activities.

**ANCILLARY MEASURES:**

- Continue use of ice and medications only as needed.
- Increase activities as patient progresses to full healing.

**EXERCISES:**

- **Continue all Phase I and Phase II** exercises.
- **Aggressive Stretching:** Self stretching may be helpful prior to strengthening exercises. Stretch in adduction (posterior capsule), external rotation and internal rotation (using towel or belt behind back) to maximize range of motion.
- **Isotonic Strengthening w/ Therabands:** Secure the theraband to a doorknob or hook so that you may stretch the band until you feel resistance. Start using low resistive theraband, 5 repetitions, 3 times per day. Gradually increase repetitions to achieve goal of 20 repetitions per exercise, 3 times per day. Then graduate to more resistive theraband and begin with 5 repetitions and repeat process, gradually increasing repetitions per exercise per day. Strengthening exercises should include shoulder flexion, extension, abduction, external rotation and internal rotation.
- **Isotonic Strengthening w/ Free Weights:** Progress to light free weights (not more than three pounds) after therabands have been used.

**PRECAUTIONS:**

- No heavy lifting or work activity.
- No sports activity.

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**Phase IV: Advanced Strengthening Phase (Weeks 12-20)**

**GOALS:**

- Prepare for strenuous work activity.
- Prepare for sports activity.

**EXERCISES:**

- **Continue all Phase I and II exercises and Phase III strengthening** program outlined above on a daily basis. This may be done with or without the supervision of physical therapist.
- **Biceps Strengthening Exercise:** Using no more than 3 pounds, bring arm to a biceps curl. Increase repetitions to achieve goal of 10-12 repetitions, 1-2 times per day.
- At 4 months postop, may begin **restricted sport activity**. Interval training programs for throwers and for golfers. These activities are permitted only if the shoulder is painfree.

**PRECAUTIONS:**

- **NO** heavy overhead lifting or work.
- **NO** contact or strenuous sports.

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**Phase V: Maintenance Phase (Weeks 20+)**

**GOALS:**

- Return to strenuous work activity without restrictions.
- Return to sports activities without restrictions.

**EXERCISES:**

- Continue maintenance exercise program of isotonic strengthening 3 times per week. This is done without assistance of a physical therapist.
- Continue sports specific exercise program as needed.
- Return to unrestricted sports activity is generally permitted.

**PRECAUTIONS:**

- Avoid shoulder re-injury by common mechanisms such as overhead work and weight lifting.
- Use common sense and avoid painful activities or exercises.