



The Orthopaedic & Fracture Clinic

Biceps Tenotomy Protocol

Phase I Passive Range of Motion (Approximately Weeks One – Two Post Op)

Goals:

- Minimize shoulder pain and inflammatory response.
- Achieve gradual restoration of passive range of motion (PROM).
- Enhance/ensure adequate scapular function.

Precautions/Patient Education:

- No active range of motion (AROM) of the elbow.
- No excessive external rotation range of motion (ROM)/stretching. Stop when you feel the first end feel.
- Use of a sling for discomfort, wean out of the sling as discomfort allows.
- No lifting of objects with operative forearm/shoulder.
- Keep incisions clean and dry.

Activity:

- Shoulder pendulum hang exercise.
- PROM elbow flexion/extension and forearm supination/pronation.
- AROM wrist/hand.
- Begin pain free shoulder PROM all planes of motion.
- Ball squeezes.
- Sleep with sling as needed to support operative shoulder; place a towel under elbow to prevent shoulder hyperextension.
- Cryotherapy for pain and inflammation for 10-15 minutes, four times daily.

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 (Approximately Weeks Two – Four Post Op)

Goals:

- Minimize shoulder pain and inflammatory response.
- Discharge use of sling.
- Achieve gradual restoration of AROM.
- Begin light waist level functional activities.

Precautions:

- No lifting with affected upper extremity.

Activity:

- Progress shoulder PROM to active assisted range of motion (AAROM) and AROM all planes to tolerance.
- Active elbow flexion/extension and forearm supination/pronation.
- Continue Cryotherapy for pain and inflammation.

Milestones to Progress to Phase III:

- Full AROM of shoulder and elbow.
- Appropriate scapular posture at rest and dynamic scapular control with ROM and functional activities.
- Completion of Phase II activities without pain or difficulty.

Phase III Strengthening (Approximately Weeks Four – Six Post Op)

Goals:

- Normalize strength, endurance, neuromuscular control.
- 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.
- Patient education regarding a gradual increase to shoulder level activities.

Activity:

- Continue A/PROM of shoulder and elbow as needed/indicated.

- Initiate biceps curls with light resistance; progress as tolerated.
- Initiate resisted supination/pronation.
- Begin rhythmic stabilization drills.
 - External rotation (ER)/Internal Rotation (IR) in the scapular plane.
 - Flexion/extension and abduction/adduction at various angles of elevation.
- No heavy lifting should be performed at this time.
 - Initiate full can scapular plane raises with good mechanics.
 - Initiate ER strengthening using exercise tubing at 30° of abduction (use towel roll).
 - Initiate side-lying ER with towel roll.
 - Initiate manual resistance ER supine in scapular plane (light resistance).
 - Initiate prone rowing at 30/45/90 degrees of abduction to neutral arm position.
 - Begin subscapularis strengthening to focus on both upper and lower fiber segments.
 - Push up plus (wall, counter, knees on the floor, floor).
 - IR resistive band (0, 45, 90 degrees of abduction).
 - Forward punch.
- Continued Cryotherapy for pain and inflammation as needed.

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 Advanced Strengthening (Approximately Week Six + Post Op)

Goals:

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

Precautions:

- Avoid excessive anterior capsule stress.
- With weightlifting, avoid military press and wide grip bench press.

Activity:

- Continue all exercises listed above.

- Progress to isotonic strengthening if patient demonstrates no compensatory strategies, is not painful, and has no residual soreness.
- Strengthening overhead if ROM and strength below 90 degree elevation is good.
- Continue shoulder stretching and strengthening at least four times per week.
- Progressive return to upper extremity weightlifting program emphasizing the larger, primary upper extremity muscles (deltoid, latissimus dorsi, pectoralis major).
 - Start with relatively light weight and high repetitions (15-25).
- May initiate pre injury level activities and vigorous sports if appropriate and cleared by MD.

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.