Biceps Tenotomy

Purpose:
This guideline is designed to return the individual to their full activities as quickly and safely as possible, following Biceps Tenotomy. Modifications to this guideline may be necessary dependent on physician specific instruction or other procedures performed. This evidence-based guideline is criterion-based; time frames and visits in each phase will vary depending on many factors. The therapist may modify the program appropriately depending on the individual's goals for activity following this surgery.

This guideline is intended to provide the treating clinician a frame of reference for rehabilitation. It is not intended to substitute clinical judgment regarding the patient's post-operative care based on exam/treatment findings, individual progress, and/or the presence of concomitant procedures or post-operative complications. If the clinician should have questions regarding post-operative progression, they should contact the referring physician.

Precautions:
- If patient has a concomitant injury/repair treatment will vary- consult with surgeon
- No active ROM of the elbow

PHASE	SUGGESTED INTERVENTIONS	MILESTONES FOR PROGRESSION
Phase I Weeks 0-2	**Precautions:** • Use of sling for discomfort, wean out as discomfort allows • Ace wrap or tubigrip around arm/bicep from hand to upper arm for 2 weeks • Avoid AROM of elbow or shoulder • No excessive shoulder external rotation, stop at first end feel • No lifting of objects **Therapy:** • Shoulder pendulums • PROM shoulder all planes as tolerated • PROM elbow flexion/extension, pronation/supination • AROM wrist and hand • Cervical spine stretching: — Upper Trapezius — Levator Scapulae — Scalenes • Posture training — Scapular glides — Scapular retractions	**Goals:** • Initiate PROM • Pain control • Edema control • Incisional healing **Criteria to Advance:** • Incisional healing • Full PROM to elbow and shoulder • Completion of Phase 1 without pain or difficulty

	— Scapular clock — Progressing towards scapular isometrics • Stress ball squeezes • Maintain cardiovascular health using walking, exercise bike • Ice, IFC (control pain and inflammation) • Mobilization: — Thoracic spine and costovertebral joints — Begin gentle scar mobilization	
Phase II Weeks 2-4	**Precautions:** • Avoid lifting with surgical arm **Therapy:** • Shoulder: — AAROM dowel in all planes/table slides→AROM — Pulleys ⇒ Normal Scapulohumeral Rhythm must exist to decrease impingement — Begin posterior capsule stretching as indicated: ⇒ Side lying shoulder IR stretch, and cross body adduction stretch • Elbow/Hand: — Sub-max isometrics elbow flex/extension in neutral shoulder position — Initiate isometric exercises sub-max contraction — AAROM of elbow flexion/extension, pronation/supination — Maintain cardiovascular health using walking, exercise bike — L/E and trunk exercises to be initiated (no bouncing) • Ice, IFC (control pain and inflammation) • Mobilizations: — Joint mobilizations where restricted: ⇒ Glenohumeral/scapulothoracic/trunk ⇒ PA/Inferior, neutral, mild ER and IR	**Goals:** • Pain control • DC sling • Improve proper physiologic movement • Full AROM • Begin light waist level functional activities **Criteria to Advance:** • Full AROM shoulder and elbow • Proper scapular mechanics • Completion of Phase II without pain
Phase III Weeks 4-6	**Precautions:** • Strengthening activities until near full ROM achieved **Therapy:**	**Goals:** • Normal strength, endurance and neuromuscular control • Return chest-level functional activities

	• Continue interventions from previous phase including shoulder and elbow PROM and AROM • Wall slides as tolerated in the scapular plane • UBE (elbow below shoulder height with minimal reach and resistance) • Posterior capsule stretch — Cross body adduction — Side-lying IR sleeper stretch • Initiate biceps strengthening, beginning with light resistance — Resisted biceps curls — Resisted supination/pronation — Resisted triceps extension — Resisted wrist extension/wrist flexion • Rhythmic stabilizations for the scapular muscles — ER/IR in scapular plane — Flexion/extension and abduction/adduction at various angles of elevation • Initiate muscular endurance gain with high repetition of 30-50 with low resistance of 1-3 lbs. • Begin closed chain strengthening as tolerated — Wall, counter, knees, floor • Initiate prone rows 30/45/90 • Initiate prone I's, T's & Y's • Initiate subscapularis strengthening to focus on both upper and lower fiber segments — Push up — Cross body diagonals with resistance tubing — IR resistance band (0°, 45°, 90° of abduction) — Forward punch • Side lying ER with towel roll • Full can scapular plane shoulder raise with good mechanics • Continue cryotherapy if needed for pain and inflammation	**Criteria to Advance:** • Full, non-painful AROM to elbow and shoulder • Good tolerance to strengthening without increase in symptoms
Phase IV Weeks 6+	**Precautions:** • Excessive anterior capsule stress • With weightlifting – avoid military press with wide grip bench **Therapy:** • Continue Phase I-III interventions as needed	**Goals:** • Maintain full non painful AROM • Return to full strenuous work activities • Return to full recreational activities **Return to Sport:**

	• Focus on proper technique with quality, uncompensated motion • Focus on low load, high repetitions (30-50) • Open and closed chain strengthening advancing as able • Resisted PNF diagonals • Maintain cardiovascular health using walking, exercise bike, consider light jogging if indicated • Progressive return to U/E weightlifting program, emphasizing the larger, primary upper extremity muscles: — Deltoid — Lats — Pectoralis major	• Full uncompensated movement • Satisfactory static stability • Clearance from MD • No complaints of pain • Adequate ROM, strength and endurance of rotator cuff and scapular musculature for task completion • Compliance with continued HEP • If starting weightlifting program, emphasize larger primary muscles (deltoid, latissimus dorsi, pec major) – light weight, high reps