



Purpose:

This guideline is designed to return the individual to their full activities as quickly and safely as possible, following Biceps Tenodesis. 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 with 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:

- An immobilizer will be used for approximately 4 weeks per the surgeon's instruction
 - Okay to remove for treatment/exercise
- If patient has a concomitant injury/repair treatment will vary- consult with surgeon

PHASE	SUGGESTED INTERVENTIONS	MILESTONES FOR PROGRESSION
Phase I Weeks 0-4	Precautions: <ul style="list-style-type: none"> • Use immobilizer all the time except for performing exercises and hygiene • Avoid AROM of elbow or shoulder x4 weeks • Avoid shoulder external rotation beyond 40° • Avoid shoulder extension or horizontal abduction past neutral • Avoid lifting • Avoid friction massage to the proximal biceps/tenodesis site Therapy: <ul style="list-style-type: none"> • Shoulder pendulums • PROM shoulder all planes as tolerated <ul style="list-style-type: none"> — Place towel roll under elbow to avoid shoulder extension • PROM elbow flexion/extension, pronation/supination • Cervical spine stretching <ul style="list-style-type: none"> — Upper Trapezius — Levator Scapulae — Scalenes • Posture training 	Goals: <ul style="list-style-type: none"> • Initiate PROM • Pain control • Edema control Criteria to Advance: <ul style="list-style-type: none"> • Healing as expected • Full PROM to elbow and shoulder



	<ul style="list-style-type: none"> — Scapular glides — Scapular retractions • AROM wrist and hand, stress ball squeezes • Maintain cardiovascular health using walking, exercise bike • Ice, IFC (control pain and inflammation) • Mobilization: <ul style="list-style-type: none"> — Thoracic Spine and costovertebral joints — Begin gentle scar mobilization — Shoulder mobilizations after 2 weeks 	
Phase II Weeks 4-6	<p>Precautions:</p> <ul style="list-style-type: none"> • Lifting • Loading biceps • No flex/supinate elbow • Friction massage to repair • Excessive stretching • Running • Distractive forces on shoulder <p>Therapy:</p> <ul style="list-style-type: none"> • Shoulder: <ul style="list-style-type: none"> — AAROM dowel/table slides/rail or wall slides→AROM — Pulleys <ul style="list-style-type: none"> ⇒ Normal Scapulohumeral Rhythm must exist to decrease impingement — AROM <ul style="list-style-type: none"> ⇒ Supine flexion, standing scaption, shoulder ER in neutral, shoulder ER at 90° (support on table) • Elbow/Hand: <ul style="list-style-type: none"> — Sub-max isometrics elbow flexion/extension in neutral shoulder position — Initiate isometric exercises sub-max contraction — AAROM of elbow flexion/extension, pronation/supination → AROM • Maintain cardiovascular health using walking, exercise bike • L/E and trunk exercises to be initiated (no bouncing) • Ice, IFC (control pain and inflammation) • Mobilization: 	<p>Goals:</p> <ul style="list-style-type: none"> • Pain control • Edema control • Improve proper physiologic movement • Full AROM of shoulder and elbow • Begin light waist-level functional activities <p>Criteria to Advance:</p> <ul style="list-style-type: none"> • Full AROM shoulder and elbow • Proper scapular mechanics



	<ul style="list-style-type: none"> — Joint mobilizations where restricted: — Glenohumeral/scapulothoracic/trunk <ul style="list-style-type: none"> ⇒ PA/Inferior ⇒ Neutral ⇒ Mild ER ⇒ Mild IR — Posterior capsule stretching 	
Phase III Weeks 6-8	Precautions: <ul style="list-style-type: none"> • Avoid strengthening/functional activities until near full ROM achieved • Avoid long-lever arm resistance for elbow flexion and supination Therapy: <ul style="list-style-type: none"> • Continue interventions from previous phase including shoulder and elbow PROM and AROM • Continue shoulder isometrics <ul style="list-style-type: none"> — Progress resistance as tolerated • Add wall slides as tolerated in the scapular plane • UBE (elbow below shoulder height with minimal reach and resistance) • Initiate biceps strengthening, beginning with light resistance <ul style="list-style-type: none"> — Resisted biceps curls — Resisted supination — Resisted triceps extension — Resisted wrist extension/wrist flexion • Rhythmic stabilizations for the scapular muscles • Begin closed chain strengthening as tolerated 	Goals: <ul style="list-style-type: none"> • Normal strength, endurance and neuromuscular control • Return chest-level activities Criteria to Advance: <ul style="list-style-type: none"> • Full, non-painful AROM to elbow and shoulder • Good tolerance to strengthening without increase in symptoms
Phase IV Weeks 8-12	Precautions: <ul style="list-style-type: none"> • Avoid pain with elbow and shoulder motion • Avoid swimming Therapy: <ul style="list-style-type: none"> • Continue Phase I-III interventions as needed • Focus on proper technique with quality, uncompensated motion • Focus on low load, high repetitions (30-50) • Open and closed chain strengthening • Progress stabilization exercises to standing for the scapular muscles • Prone scapular and shoulder strengthening (I, T, and Y) 	Goals: <ul style="list-style-type: none"> • Maintain full AROM • Improve muscular strength, power, and endurance • Initiation of functional exercises • Enhanced muscular strength, power, and endurance • Maintained shoulder stability Criteria to Advance: <ul style="list-style-type: none"> • Full uncompensated movement



	<ul style="list-style-type: none"> • Prone rowing (30°/45°/90° abduction) • Push-up progression <ul style="list-style-type: none"> — Wall — Counter — Knees on floor — Floor • Resisted ER/IR in neutral and elevated positions • Side-lying ER • May begin weightlifting overhead, but avoid military press and wide grip bench press • Body blade in all planes • Resisted PNF diagonals • Maintain cardiovascular health using walking, exercise bike, consider light jogging if indicated 	<ul style="list-style-type: none"> • Satisfactory static stability
Phase V Weeks 12+	Precautions: <ul style="list-style-type: none"> • Avoid excessive anterior capsule stress Therapy: <ul style="list-style-type: none"> • Initiate plyometric exercises (below shoulder level progress to overhead) <ul style="list-style-type: none"> — Weighted ball drop/catch in standing — Chest pass — Overhead ball dribble against wall — Prone 90/90 ball drop/catch — Prone T and Y ball drop/catch • Add gym exercises, multi-joint/compound strengthening • Initiate sport-specific training/job-related tasks • Interval throwing program • Swimming/tennis/lifting/carrying 	Goals: <ul style="list-style-type: none"> • Progress strength and function of involved upper extremity • No pain or tenderness • Return to normal sport or work activities Return to Sport: <ul style="list-style-type: none"> • No pain with progressive strengthening • 90% strength compared to uninvolved side • WNL field testing • Low level to no disability with outcome measures