BICEPS TENODESIS
CLINICAL PRACTICE GUIDELINE

Summary of Recommendations

Risk Factors	• Limit shoulder ER to 40° and no extension or horizontal extension for **4 to 6 weeks** • Concomitant surgeries
Precautions	• Use sling for 6 weeks • No excessive biceps loading for 8 weeks • Initiate soft tissue mobilization at 2 weeks (avoid or cross friction massage for **6 weeks**) • No isolated biceps activation with elbow flexion or straight arm resisted flexion/ supination for **8 weeks**
Manual Therapy	• PROM exercises and GH joint mobilizations (phase I & II) • Scar massage is appropriate in phase II
Corrective Interventions	• Cryotherapy for pain and inflammation • Manual Therapy
Criteria for Discharge	• >90% with patient-reported outcome • Full AROM, strength, and able to demonstrate pain-free, sports specific movements without compensatory movements

Phase I: Protection to PROM (0-2 Weeks)

Decrease Pain and Inflammation	• Education: No extremity AROM, incisions clean and dry, ace wrap or lymphatic drainage taught for upper extremity swelling control • Initiate passive pendulums as warm-up • Modalities including vasopneumatic device or E-stim • No friction massage • Sleep with sling, place towel under elbow to prevent extension
Restore Passive ROM	• Limit shoulder ER to 40° for 4 weeks • No extension or horizontal extension for 4 weeks
Begin Home Exercise Program	• Posture education • Arm immobilized seated scapular retractions

	● Scapular clocks progressed to scapular isometrics ● PROM elbow flexion/ extension & forearm supination/ pronation ● AROM wrist/ hand & ball squeezes ● No computer activity: 4wks
Criteria to Progress	● Full passive shoulder range of motion ● Full passive elbow flexion/extension ● Full passive forearm supination/pronation

Phase II: PROM to AROM (2-6 weeks)

Minimize Pain and Inflammation	● No bicep tension for 6 weeks ● Continue sling use for 6 weeks
Post-op Weeks 2-4	● NO ER>40deg and Limit shoulder extension in frontal and sagittal planes (4weeks) ● PROM-AAROM for all planes to tolerance and within limits at shoulder, wrist, and elbow ● Scar message, no cross friction
Post-op Weeks 4-6	● Initiation of shoulder submaximal-isometrics: IR, ER, ABD, & ADD ● Increase AAROM – AROM muscle endurance from supine to standing for waist level function, maintaining proper scapular kinematics
Criteria to Progress	● Pain-free, full shoulder AROM ● Proper static posture and dynamic scapular control with AROM

Phase III: Strength Phase (6-12 weeks)

Pain-free, Progressive Restoration of AROM and Strength	● No pain, inflammation or strengthening in plane until ROM in almost full ● Avoid long lever arm resistance for elbow supination and flexion ● Normalize strength, endurance, neuromuscular control starting below chest level, working up to overheard
Post-op Weeks 6-8	● Continue PROM to AROM of shoulder and elbow, gaining muscle endurance with high reps, low resistance ● Isotonic IR and ER light resistance resisted movement with wrist in neutral (no supination) ● Supine ABC & SA punches with high reps, low resistance ● Week 7 begin prone scapular stability program

Post-op Weeks 8-12	● **Slowly progress** resisted biceps curl, supination, & pronation ● Progress prone Scap 6 to Supine 5 ● Resisted IR and ER at 30° ABD progressing to 90° ● Resisted SA punch & bear hugs, standing ● Resisted low row, prone 30°/45°/90° to standing ● Push-up plus: wall, counter, knees on the floor, & floor ● Rhythmic stabilization: ER & IR in scapular plane; flexion, extension, ABD & ADD at various angles of elevation ● Supine to standing diagonal patterns: D1 & D2 ● Begin closed chain stabilization exercises
Return to Activity After Week 8	● Running, biking, & Stairmaster ● Golf with proper kinematics
Criteria to Progress	● Pain-free, full AROM of shoulder and elbow with normal scapulohumeral rhythm ● 5/5 MMT scores for RTC at 90° ABD in scapular plane ● 5/5 MMT for scapulothoracic musculature

Phase IV: Return to Sport/Activity (weeks 12-16)

Goals	● Maintain full non-painful AROM ● Progress strength and power without compensatory strategies ● Avoid excessive anterior capsule stress (NO military press, upright row, or wide grip bench) ● Return to sports progression: throwing/ swimming ● Analysis of sports specific movements
Exercises	● Initiate plyometric training below shoulder to overhead: begin with both arms and progress to a single arm ● Low to higher velocity strengthening and plyometric activities: ball drops in prone to D2 reverse throws
Criteria to Return to Sport Activity	● Pain-free, stability & control with higher velocity movements including sports specific patterns and change of direction movements ● Proper kinematic control transfer from the hip & core to the shoulder with dynamic movement

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