SLAP (Superior labral Anterior to Posterior) Repair Protocol

Type I SLAP Tear: Degenerative fraying of the superior labrum. The biceps attachment to the labrum is intact. The biceps anchor is intact.

Type II SLAP Tear: The biceps anchor has pulled away from the glenoid attachment site.

Type III SLAP Tear: Involves a bucket-handle tear of the superior labrum with an intact biceps anchor.

Type IV SLAP Tear: Involves a bucket-handle tear of the superior labrum. The tear extends into the biceps tendon. The biceps tendon and labrum are displaced into the glenohumeral joint.

NOTE: Progression is time and criterion-based, dependent on the soft tissue healing, patient demographics, and clinician evaluation.

Phase 1: Immediate Post-Op (3–5 Days – 4 weeks post-op)	
Rehabilitation Goals	• Educate patient on physical therapy expectations, and recovery timelines • Pain/surgical sequelae management via passive and active modalities • Protect repair, promote tendon to bone healing • Maintain and progress shoulder PROM within tolerable range • Maintain UE and periscapular PROM and AROM
Sling	• To be worn at all times except for PT exercises, showering, dressing. • Wean out after ~4 weeks per tolerance
Precautions	• UE for very light AROM activities up to elbow height while in sling. • Avoid anything heavier than a coffee mug. • Do not support your weight through affected UE. • Avoid loading/stretching biceps/anterior shoulder
Interventions	**Modalities:** heat prior to PT, ice after PT **Manual Therapy:** • STM to shoulder/irritable soft tissue of brachium, antebrachium, periscapular muscles and cervical spine. • Scapular mobilizations, thoracic and cervical mobilizations/manipulation. **Range of Motion/Mobility:** • PROM by therapist: relatively pain free range initially and then progress, address all planes of motion • PROM by patient: pendulums, ER in neutral, Table slides/walk outs flexion, scaption, abduction **AROM:** • Elbow/wrist, gripping (ball or towel), shoulder rolls, scapular squeezes, cervical AROM all planes • Thoracic extension/rotation in chair • Prone scapular AROM > prone row at ~2 weeks **Strength:** • Scapular stabilization (scapular clock and manual resisted scapular PNF patterns) • Submaximal isometrics in neutral for shoulder and elbow ~3 weeks **__No elbow flexion__**
Progression Criteria	• Adequate management of surgical sequelae (pain, ecchymosis, edema) • PT weaning out of sling • Shoulder flx/abd PROM ~90 degrees • Shoulder ER/IR PROM ~50% of unaffected side • PT consistent with HEP and able to tolerate PROM shoulder exercises

Phase 2: Early Rehab I (weeks 4–6)	
Rehabilitation Goals	• Progress shoulder PROM • Discharge sling • Minimize pain • Protect repair • Initiate AAROM • Initiate AROM
Precautions	• Avoid lifting/carrying tasks, weight bearing through UE, activities past shoulder height • Very gradual introduction of load across anterior shoulder/biceps
Interventions	**Modalities:** Heat/Ice as needed **Manual Therapy:** STM/cervical and thoracic mobilizations as needed, rhythmic stabilization **Range of Motion/Mobility:** • PROM: address limitations within tolerance • PROM by patient: Supine ER in progressive abduction, IR behind the back, posterior capsule stretch **AAROM:** • Pulleys, supine wand AAROM to 90 (press), side-lying flexion with ball AAROM, standing AAROM flexion/abduction • Wall walks > wall slides **AROM:** Initiate per tolerance to AAROM • Supine press toward ceiling to ~90 degrees of flexion, scapular punches, figure 8, salutes (hand to forehead), SL ER • Initiate flexion/scaption to shoulder height in front of mirror for biofeedback to avoid shoulder hiking **Isometrics:** • Reactive isometrics in neutral with light band resistance
Progression Criteria	• Adequate tolerance to progressions, min-mod pain, good muscle activity • AAROM elevation to 90 degrees with min-mod scapular hiking at most • >/=120 degrees of passive elevation of shoulder (flexion/scaption/abduction) • >/=60 degrees of passive ER/IR

Phase 3: Mid-Stage Rehab (weeks 6–12)	
Rehabilitation Goals	• Normalize PROM • Progress AROM • Assessstrength • Initiate resistive exercises • Minimal complaints of pain • **Pending progress and pt confidence, d/c to self-management appropriate in this phase**
Precautions	• Avoid lifting more than 10 pounds, continue to avoid weight bearing through affected UE
Interventions	**Modalities: Heat/Ice:** As Needed **Manual Therapy:** As Needed **Range of Motion/Mobility:** • PROM: restore end ranges of motion • Stretching: doorway/TRX pec stretch low/mid/high, foam roller pec stretch/snow angel, bar flexion stretch pro/sup, PWB hang, wall slide to OP stretch flx/abd, sleeper IR stretch **AROM:** • Progression of prone exercises, neutral rot T's, Y's, ER/IR in prone • Progression to abd/flx AROM past shoulder height (mirror biofeedback) • Wall clocks/wall snow angels **Reactive isometrics:** • ER/IR/extension/flexion (can progress into flexion/abduction ranges at this time) • Addition of body blade, addition of wall ball activities **Resistive exercises:** • Neutral/pulling motions (extension, mid rows), progress to gentle resistance of flexion in supine and then standing, resisted ER and IR, resisted horizontal abduction in neutral • Light loop band resistance to active motions such as Sharapova's • Resisted biceps curls by end of stage

Phase 3: Mid-Stage Rehab (weeks 6–12) (continued)	
Progression Criteria	• Adequate tolerance to progressions, minimal pain, good muscle activity • Full PROM all planes • Progressive improvement in AROM in all planes • Trace scapular compensation with active motions

Phase 4: Late-Stage Rehab (weeks 13–16)	
Rehabilitation Goals	• Normalize AROM • Progress resistive exercises • Progressive introduction of activities that appropriately stress repair site
Precautions	• Avoid repetitive overhead tasks (painting the ceiling), no throwing/plyometric activities
Interventions	**Modalities:** d/c or decrease frequency of heat/ice/MT. Dry needling for persistent soft tissue dysfunction **Range of Motion/Mobility:** • PROM/mobility: continue to address limitations as needed • AROM: Progress as necessary to sport and ADL demands • Continuous Articular Rotation (CAR) exercises (full functional IR to full functional ER) in various positions (standing, prone, on ball, side-lying) **Reactive isometrics:** Time based oscillation training w/band, body blade, weighted ball etc. in multi-planar patterns **Resistive exercises:** • Continue progressive resistance via bands and dumbbells • ER/IR in flexion/abduction with band resistance • Band resisted PNF patterns in supine and standing • Keiser resisted exercises such as lat pulldowns and chopping **Weight-bearing:** • Bird dog UE only, to UE/LE alt • Front plank on wall > table > stair > flat • Side plank on knees > legs straight > adductor side plank • Wall push up > table push up > stair push up > flat push up > band/bosu/physioball push up **Therapist resisted:** • Supine, side lying and prone. Single plane and then multiple plane motions
Progression Criteria	• Adequate tolerance to progressions, minimal pain, good muscle activity • Full PROM/AROM all planes • ER/IR strength LSI >/= 80%

Phase 5: Return to Sport/Manual Labor (4–6 month spost-op)	
Rehabilitation Goals	• Progress resistive exercises • Maintain end range PROM/AROM • Begin eccentrically resisted motions, plyometrics, proprioception • Initiate sports/work specific rehab ~4 months
Interventions	**Initial plyometrics:** • Keiser: split stance/half kneeling down chops>upchops • Med ball: both arms forward pass/bent over press slam to ground>single arm, lateral pass/wall slam **Progressive plyometrics-** • Med ball: overhead slams > supine chest pass > supine overhead pass > standing windmill slam • Weighted ball: reverse throw > wall ball ER in abd > straight arm wall ball in flx/abd • Body weight: assisted plyo push up, hands on table plyo push up, plyo eccentric **Return to racket sport/golf/Swimming/Throwing:** • Begin Return to Throw protocol Progress strengthening to include return to regular gym/team strengthening

Phase 5: Return to Sport/Manual Labor (4–6 months post-op) (continued)	
Return-to-Sport	• Min pain with progressive plyometrics and interval programs • Shoulder strength LSI>/= 90% • Return to throwing at 4 months • Collision sports at 6 months • Full Recovery ~ 12 months' post op