

Protocol for Bankart Repair/Capsulorrhaphy

Phase 1: Immediate Post-Op (Weeks 0–3)	
Rehabilitation Goals	<ul style="list-style-type: none"> Educate patient on physical therapy and recovery Pain/surgical sequelae management via passive and active modalities Protect repair, promote tendon to bone healing Wean out of sling Maintain and progress shoulder PROM within tolerable range Maintain UE and periscapular PROM and AROM
Sling	<ul style="list-style-type: none"> Neutral rotation with abduction pillow in 30-45° of abduction worn at all times for 3 weeks
Precautions	<ul style="list-style-type: none"> No shoulder AROM No lifting/carrying tasks, weight bearing through UE
Interventions	<p>Modalities:</p> <p>Manual Therapy:</p> <ul style="list-style-type: none"> STM to shoulder/irritable soft tissue of brachium, antebrachium, periscapular muscles and cervical spine. Scapular mobilizations, thoracic and cervical mobilizations/manipulation. <p>Range of Motion/Mobility:</p> <ul style="list-style-type: none"> PROM by therapist- flx/scap/IR/hor add to tolerance, neutral rot abd to 90, ER neutral to 50% of contralateral shoulder Stretching- pendulums, ER in neutral, Table slides/walk outs flexion, scaption, abduction, IR BTB towel. <p>Isometrics:</p> <ul style="list-style-type: none"> ER/IR/extension/flexion neutral Reactive isometrics in neutral with light band resistance <p>AROM:</p> <ul style="list-style-type: none"> 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 <p>AAROM:</p> <ul style="list-style-type: none"> Pulleys, supine wand AAROM to 90 (press), sidelying flexion with ball AAROM, standing AAROM flexion/abduction/extension/IR with wand. Wall walks>wall slides
Criteria to Progress	<ul style="list-style-type: none"> Adequate management of surgical sequelae (pain, ecchymosis, edema) >/=90 degrees of passive elevation of shoulder (flexion/scaption/abduction) >/=20-30 degrees of passive ER and IR Minimal shoulder hike/compensation with AAROM flx/scap/abd Pt consistent with HEP and able to tolerate PROM shoulder exercises

Phase 2: Early Rehab (Weeks 4–6)	
Rehabilitation Goals	<ul style="list-style-type: none"> Progress shoulder PROM Minimize pain Protect repair Discharge sling Initiate AAROM Progress to AROM
Precautions	<ul style="list-style-type: none"> Discharge sling in this phase Gradual introduction of UE use (very light ADLs)

Phase 2: Early Rehab (Weeks 4–6) Continued

<p>Interventions</p>	<p>Mobility: Heat/Ice as needed Manual Therapy: STM/cervical and thoracic mobilizations as needed, rhythmic stabilization Range of Motion/Mobility:</p> <ul style="list-style-type: none"> • PROM: flx/scap/IR/hor add to tolerance, neutral rot abd <math>\leq 120</math>, ER neutral to 80% of contralateral shoulder • Stretching: supine ER in progressive abd, IR up back, posterior capsule stretch, sleeper stretch <p>AAROM:</p> <ul style="list-style-type: none"> • Pulleys, supine wand AAROM to 90 (press), sidelying flexion with ball AAROM, standing AAROM flexion/abduction/extension/IR with wand. • Wall walks > wall slides <p>Isometrics:</p> <ul style="list-style-type: none"> • ER/IR/extension/flexion neutral • Reactive isometrics in neutral with light band resistance <p>AROM: Initiate per tolerance to AAROM</p> <ul style="list-style-type: none"> • 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
<p>Criteria to Progress</p>	<ul style="list-style-type: none"> • Adequate tolerance to progressions, min-mod pain, good muscle activity • AAROM/AROM 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 and IR

Phase 3: Mid-Stage Rehab (Weeks 6–10)

<p>Rehabilitation Goals</p>	<ul style="list-style-type: none"> • Normalize PROM • Progress AROM • Assess strength • Initiate resistive exercises • Minimal complaints of pain • Pending progress and pt confidence, d/c to self-management appropriate in this phase
<p>Precautions</p>	<ul style="list-style-type: none"> • Avoid lifting more than 10 pounds, continue to avoid weight bearing through affected UE
<p>Interventions</p>	<p>Mobility: Heat/Ice as needed Manual Therapy: As Needed Range of Motion/Mobility:</p> <ul style="list-style-type: none"> • PROM: All planes of motion progressed gradually to normal limits during this phase. ER may always be limited as compared to unaffected side. • Stretching: 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 <p>AROM:</p> <ul style="list-style-type: none"> • 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 <p>Reactive isometrics:</p> <ul style="list-style-type: none"> • ER/IR/extension/flexion (can progress into flexion/abduction ranges at this time) • Addition of body blade, addition of wall ball activities <p>Resistive exercises:</p> <ul style="list-style-type: none"> • 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
<p>Criteria to Progress</p>	<ul style="list-style-type: none"> • 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 10–16)	
Rehabilitation Goals	<ul style="list-style-type: none"> • Normalize AROM • Progress resistive exercises • Progressive introduction of activities that appropriately stress repair site
Precautions	<ul style="list-style-type: none"> • Avoid repetitive overhead tasks (painting the ceiling), no throwing/plyometric activities
Interventions	<p>Modalities: d/c or decrease frequency of heat/ice/MT. Dry needling for persistent soft tissue dysfunction</p> <p>Range of Motion/Mobility:</p> <ul style="list-style-type: none"> • PROM/mobility: continue to address limitations as needed • AROM: Continuous Articular Rotation (CAR) exercises (full functional IR to full functional ER) in various positions (standing, prone, on ball, sidelying) <p>Reactive isometrics: Time based oscillation training w/band, body blade, weighted ball etc. in multi-planar patterns</p> <p>Resistive exercises:</p> <ul style="list-style-type: none"> • Progressive introduction of 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 <ul style="list-style-type: none"> • Special emphasis on stabilization exercises in apprehension position <p>Weight bearing:</p> <ul style="list-style-type: none"> • 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 <ul style="list-style-type: none"> • Gradual introduction of shoulder extension past neutral with push up exercises <p>Therapist resisted:</p> <ul style="list-style-type: none"> • Supine, side lying and prone. Single plane and then multiple plane motions
Criteria to Progress	<ul style="list-style-type: none"> • Adequate tolerance to progressions, minimal pain, good muscle activity • Full PROM/AROM all planes • ER/IR strength LSI \geq 80% • Score 70-80% of gender predicted norm on CKQUEST <ul style="list-style-type: none"> • 15-17 for males, 17-19 for females

Phase 5: Return to Sport/Manual Labor (4–6 Months Post-Op)	
Rehabilitation Goals	<ul style="list-style-type: none"> • Progress resistive exercises • Maintain end range PROM/AROM • Begin eccentrically resisted motions, plyometrics, proprioception • Initiate sports/work specific rehab ~4.5 months
Interventions	<p>Initial plyometrics:</p> <ul style="list-style-type: none"> • 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 <p>Progressive plyometrics:</p> <ul style="list-style-type: none"> • 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 <p>Return to racket sport/golf/Swimming/Throwing:</p> <ul style="list-style-type: none"> • Consider interval return to sport protocols
Return-to-sport	<ul style="list-style-type: none"> • Min pain with progressive plyometrics and interval programs • Shoulder strength LSI \geq 90% • Score 90-100% of gender predicted norm on CKQUEST • 21 for males, 23 for females • Return to throwing at 6 months • Throw from a pitcher's mound 9 months • Collision sports at ~9 months <ul style="list-style-type: none"> • Full Recovery ~ 12 months' post op